7/2/2009

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Dear Ms. Stewart

Cannon Air Force Base, NM is forwarding two hardbound and two electronic copies of the Final Report, Initial Baseline Groundwater Monitoring, Melrose Air Force Range, New Mexico, June 2009 for your consideration.

If you have any questions, please contact Mr. Hugh G. Hanson, Asset Management Flight, at 575-784-6031 (temporary).

Sincerely

Ronald A. Lancaster, YC-03

cc:
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FINAL REPORT

INITIAL BASELINE GROUNDWATER MONITORING

MELROSE AIR FORCE RANGE NEW MEXICO

June 2009

Prepared for:

Air Force Special Operations Command

27th Special Operations Wing

Under contract to:

U.S. Army Corps of Engineers Omaha District

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FINAL REPORT
INITIAL BASELINE GROUNDWATER MONITORING
MELROSE AIR FORCE RANGE
NEW MEXICO

June 2009

Prepared by:

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Contract Number W9128F-04-D-0001
Task Order 0071

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Acronyms and Abbreviations

%	percentage
°C	degrees Celsius
°F	degrees Fahrenheit
µg/L	micrograms per liter
µS/cm	microsiemens per centimeter
mg/L	milligrams per liter
ADR	Automated Data Review
AFB	Air Force Base
AFR	Air Force Range
AOC	Area of Concern
APPL	Agriculture and Priority Pollutants Laboratories, Inc.
bgs	below ground surface
BTOC	below top of casing
CAS	Columbia Analytical Services
CFC	chlorofluorocarbon
cm	centimeter
cm/yr	centimeters/year
COC	chain of custody
COPEC	chemicals of potential ecological concern
DO	dissolved oxygen
DoD QSM	Department of Defense Quality Systems Manual for Environmental Laboratories
DQO	data quality objective
DTB	depth to bottom
Ebasco	Ebasco Services, Inc.
ft/mi	feet per mile
FW	Foster Wheeler Environmental Corporation
gpm	gallons per minute
GIS	geographic information system
ID	identification number

IDW	investigation-derived waste
in/yr	inches per year
J	estimated qualifier
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
Lee Wan	Lee Wan and Associates Inc.
LGF	Langman, Gebhardt, and Falk
lpm	liters per minute
LTM	Long Term Monitoring
MCL	maximum contaminant level
msl	mean sea level
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MWL	Melrose Air Force Range water-level well
MWQ	Melrose Air Force Range water-quality well
NAD	North American Datum
NAVD	North American Vertical Datum
NMAC	New Mexico Administrative Code
ORP	oxidation/reduction potential
PCB	polychlorinated biphenyls
PID	photoionization detector
ppm	parts per million
PVC	polyvinyl chloride
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RL	reporting limit
RFI	RCRA Facility Investigation
RPD	relative percent difference
SDG	sample delivery group

SLERA	screening-level ecological risk assessment
SOP	Standard Operating Procedure
SVOC	semi-volatile organic compound
SWMU	Solid Waste Management Unit
TAL	target analyte list
TOC	total organic carbon
TRPH	total recoverable petroleum hydrocarbon
U	nondetect qualifier
UJ	estimated nondetect qualifier
URS	URS Group, Inc.
U.S.	United States
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UXO	unexploded ordnance
VOC	volatile organic compound
WQCC	New Mexico Water Quality Control Commission
X	times

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This report is the first in a series and represents the initial baseline record for the Long Term Monitoring (LTM) of groundwater for three Solid Waste Management Units (SWMUs) and four Areas of Concern (AOCs), as well as the Melrose Air Force Range (AFR) Groundwater Quality Well Network, at Melrose AFR, New Mexico. The analyses and resultant data presented within this and future reports will:

- Establish general chemical and physical properties of groundwater and identify potential Contaminants of Concern, and
- Create a record as a basis for making recommendations regarding site closure, further investigation or monitoring, and aquifer sustainability.

Cannon Air Force Base (AFB) has oversight responsibilities for Melrose AFR. The locations of Cannon AFB and Melrose AFR are shown in **Figure 1-1**.

Field sampling and data collection was performed in January and February 2009 for the Melrose AFR Groundwater Quality Well Network monitoring wells plus the environmental monitoring wells associated with the three SWMUs and four AOCs. The SWMUs and AOCs are designated:

- SWMU 114 – Expended Ordnance and Industrial Waste Burial Site (Motor Pool Trenches)
- SWMU 115 – Explosives Contaminated Burial Site (Arroyo Burial Site)
- SWMU 117 – Domestic Waste Burial Site (Southeast of Main Building)
- AOC 1 – World War II Cantonment Disposal Site
- AOC 2 – Domestic Waste Burial Site (East of Fire Station)
- AOC 3 – Disposal/Burn Site (North Helicopter Pad)
- AOC 4 – Northwest Munitions Disposal Site (Northwest Corner of Impact Area)

The locations of the wells within the Melrose AFR Groundwater Quality Well Network and the monitoring wells associated with the seven SWMUs and AOCs are shown on **Figure 1-2**. This figure presents an overview of the well locations that exist at Melrose AFR.

1.1 AUTHORITY

URS Group, Inc. (URS) has been contracted by the United States Army Corps of Engineers (USACE), Omaha District under Contract Number W9128F-04-D-0001, Delivery Order 0071, to complete initial baseline groundwater monitoring activities at Melrose AFR. This Initial Baseline Groundwater Monitoring Report has been prepared as part of these activities.

1.2 PURPOSE AND SCOPE

The purpose of this Melrose AFR groundwater monitoring project is to monitor and evaluate groundwater conditions at SWMUs 114, 115, 117, and AOCs 1, 2, 3, and 4 with regard to

potential contaminants of concern. The groundwater conditions within Melrose's groundwater well network are also being monitored. Analytical results from the initial sampling are being used to establish a baseline of groundwater conditions at the wells sampled. Results from future sampling rounds will be used to determine whether any of the sites being investigated can be selected for Corrective Action Complete or whether further investigation or monitoring is required.

Initial baseline groundwater monitoring activities were planned for as many as 25 monitoring wells located at SWMUs 114, 115, 117, and AOCs 1, 2, 3, and 4; however, only 15 wells were found to exist during the January/February 2009 event at these SWMUs and AOCs. Of the 15 monitoring wells, 10 were found to have sufficient groundwater for sampling purposes. The remaining five wells contained too little water for sampling purposes. Additional sampling details are provided in **Section 2**.

Groundwater monitoring activities were also planned for as many as 24 wells located within the Melrose AFR Groundwater Quality Well Network. Eighteen wells were found to be accessible and have sufficient groundwater for sampling purposes. The remaining six wells contained too little water for sampling purposes, contained obstructing pump parts that restricted sampling activities, or were misidentified as other existing monitoring wells. No sampling was completed at these six monitoring wells. Additional sampling details are provided in **Section 2**.

All field activities presented in this document were completed in accordance with the data quality objectives (DQOs) presented in the Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009).

Groundwater samples for wells at the three SWMU and four AOC locations were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, explosives, project-specific Target Analyte List (TAL) metals, hexavalent chromium, perchlorate, bromide, chloride, fluoride, sulfate, sulfide, total organic carbon (TOC), phosphate, and ammonia. The Groundwater Quality Well Network monitoring wells were analyzed for project-specific TAL metals, hexavalent chromium, total dissolved solids, alkalinity, TOC, phosphate, nitrate/nitrite, and ammonia.

Water levels and water quality parameters including dissolved oxygen (DO), oxidation/reduction potential (ORP), temperature, pH, specific conductance, and turbidity were measured at all monitoring wells during well purging and prior to groundwater sample collection. Agriculture and Priority Pollutants Laboratories, Inc. (APPL), in Fresno, California completed all laboratory tests and analyses with the exception of TOC analysis. Most samples for TOC analysis were subcontracted to Columbia Analytical Services, Inc. by APPL with permission from URS due to TOC instrument problems at APPL. In addition, quality assurance (QA) split sample analyses were completed by Emax Laboratories, Inc. in Torrance, California.

1.3 MELROSE AIR FORCE RANGE DESCRIPTION

The following site information has been adapted from the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Report Addendum (Foster Wheeler Environmental

Corporation [FW] 2003), the RFI Work Plan (Ebasco Services Inc. [Ebasco] 1995), and the Groundwater Hydrology and Water Quality of the Southern High Plains Aquifer (Langman, Gebhardt, and Falk [LGF] 2004).

1.3.1 Facility Description and History

Melrose AFR is an active United States Air Force (USAF) bombing and air-to-ground gunnery range located in Roosevelt and Curry counties, approximately 8 miles southwest of Melrose, New Mexico, and 25 miles southwest of Cannon AFB. A facility location map is included as **Figure 1-1**. The United States (U.S.) Army Air Corps used the area for training during World War II. In 1952, the USAF leased 7,771 acres of grassland for use as a bombing and air-to-ground gunnery range to support Clovis AFB (Kearney 1987). Clovis AFB was renamed Cannon AFB in 1957 in honor of the late General John K. Cannon, former commander of the Tactical Air Command. Melrose AFR was expanded between 1968 and 1972 with the purchase of both the leased land and an additional 14,369 acres (Kearney 1987). According to geographic information system (GIS) data provided by Melrose AFR in September 2008, the total area of the range is 59,928 acres. Melrose AFR has been a composite day and night simulated special and conventional weapons delivery range since approximately 1969. Currently, a combination of practice ordnance and high explosives are used at Melrose AFR.

1.3.2 Melrose AFR Setting – Physical Geography

Melrose AFR is situated in the Southern High Plains Physiographic Province in the Llano Estacado subprovince. The Llano Estacado is a nearly flat plain sloping gently (10 to 15 feet per mile) to the east and southeast. Elevations in the eastern New Mexico portion of the Llano Estacado exceed 4,000 feet above mean sea level (msl). In the vicinity of Melrose AFR, elevations range from 4,200 feet to 4,600 feet above msl.

The most prominent geomorphic features in the vicinity of Melrose AFR are spurs of an escarpment known as “the Mesa”, which rises about 200 feet above the average elevation of the range surface. The northern spur ends in a small butte near the center, overlooking much of the range. Other geomorphic features in the region include relict sand dunes and minor playas located along the south side of U.S. Highway 84 north of the range. Relict sand dunes are not found on Melrose AFR.

Playas are broad, shallow depressions that may form as a result of soil leaching and wind erosion (blowouts) or from collapse of the surface due to differential erosion of underlying rock. During periods of rainfall, these depressions commonly collect surface runoff from small-to moderate-sized drainage areas to form ephemeral playa lakes. Playas have no external surface drainage. Water is lost by infiltration to the soil and evaporation; without recharge, playa lakes persist for only a few days or weeks. Only minor playa areas are present at the north end of Melrose AFR, but larger playas (greater than 0.3 square miles in area) are present within 1 to 2 miles north of the range.

Stream valleys in this region of New Mexico tend to be fairly broad and widely spaced; streams are ephemeral and drainages are poorly developed. No perennial streams exist on or near

Melrose AFR. The nearest named drainages are Chapman Draw, approximately 2 miles west of the range, and Cañada del Tule, about 2 miles southeast of the range. Chapman Draw drains to the north, while Cañada del Tule drains to the east. Neither is a perennial stream. The surface topography of Melrose AFR slopes to the northeast, and overland flow and ephemeral drainage from the site is toward the northeast and not toward either drainage (FW 2003) (see **Figure 1-1**).

1.3.3 Land Use Near Melrose AFR

Melrose AFR is located approximately eight miles southwest of Melrose, New Mexico and 25 miles southwest of Cannon AFB. The majority of the land in the area is productive, irrigated farmland or grassland. The major crops are wheat, sorghum, sugar beets, corn, cotton, alfalfa, barley, and peanuts. According to the 2000 U.S. Census data, there were 736 people living in the Village of Melrose, New Mexico.

1.3.4 Climate

The climate of east-central New Mexico is classified as tropical semi-arid, with summer temperature and precipitation maxima. Average monthly temperatures range from a January low of 12 degrees Celsius (°C) (39 degrees Fahrenheit [°F]) to a July high of 26°C (78°F). Extreme daily temperatures range from -24°C (-11°F) to 41°C (106°F) (Lee Wan and Associates Inc. [Lee Wan] 1990). Average monthly precipitation ranges from 1 centimeter (cm) (0.4 inches) in winter to 6.9 cm (2.7 inches) in July. The maximum-recorded 24-hour rainfall was 12.2 cm (4.7 inches), which occurred in the month of August. Rainfall occurs on eight or more days per month during the summer precipitation maximum. Mean annual precipitation is approximately 41 cm (14 inches) at Melrose and the mean annual evapotranspiration rate is 175.3 centimeters per year (cm/yr) (69 inches per year [in/yr]) (Lee Wan 1990). Prevailing winds are from the west at an average of 8 miles per hour (USAF 1990).

The atmosphere around the area of Melrose AFR is generally well mixed. The seasonal and annual average mixing heights can vary from 400 meters in the morning to 4,000 meters in the afternoon. The afternoon mixing heights are typically greater during the spring and fall seasons. The morning mixing heights are usually low due to nighttime heat loss from the ground, producing surface-based temperature inversions. After sunrise, these inversions break up, and solar heating of the earth's surface causes vertical mixing in the atmosphere.

Dust is frequently entrained into the atmosphere in this region of the country because of gusty winds and the semi-arid climate. The Texas Panhandle-eastern New Mexico area is considered the worst area in the United States for windblown dust. Occasionally, this windblown dust is of sufficient quantity to restrict visibility. Most of the seasonal dust storms occur in March and April, when the wind speeds are typically high.

1.3.5 Geology

Melrose AFR is located in the Southern High Plains physiographic region and lies atop a large plateau known as the Llano Estacado that slopes gently to the east-southeast from eastern New Mexico into west Texas. Melrose AFR topography (excluding the Mesa) is open and mostly flat

and gently slopes to the northeast. The Mesa dominates the southwest part of Melrose AFR, is a topographic high, and is part of the Western Caprock Escarpment that defines the western boundary of the Southern High Plains aquifer. The Mesa has a plateau area of about 7,775 acres ranging in altitude from 4,600 to 4,700 feet and forms the surface basin boundary between the Pecos River Basin to the west and the Portales Valley to the east. No surface-water bodies are located within Melrose AFR except minor ephemeral channels including the Chapman Draw and the Cañada del Tule, which originate at the Mesa. Melrose AFR is located in the Plains-Mesa Grassland vegetation unit, and vegetation consists of grasses and shrubs.

The geologic structure of the Southern High Plains aquifer at Melrose AFR includes the Chinle, Ogallala, and Blackwater Draw Formations. The Chinle Formation of Triassic age forms the base of the unconfined Southern High Plains aquifer at Melrose AFR, consists mostly of clay with some intermixed sand and silt, and ranges in thickness from 0 to 400 feet for eastern New Mexico. The Ogallala Formation of Tertiary age is the uppermost formation for the central and southern parts of Melrose AFR and lies unconformably atop the upper unit of the eastward-dipping Chinle Formation. The Ogallala Formation consists of eolian sand and silt and fluvial and lacustrine sand, silt, clay, and gravel, and can range in thickness from 30 to 600 feet in eastern New Mexico and west Texas.

The Blackwater Draw Formation of Quarternary age overlies the Ogallala Formation in the northern part of Melrose AFR, consists mostly of eolian sand deposits, and can range in thickness from 0 to 80 feet for eastern New Mexico. A caliche layer is typically present in the unsaturated zone of the Blackwater or Ogallala Formations in New Mexico, but its characteristics at Melrose AFR are unknown. The caliche forming the Western Caprock Escarpment was pedogenic carbonate that accumulated locally during the Tertiary and Quarternary Periods and that other buried caliche layers in the Ogallala Formation are not well known. Drilling at Melrose AFR and Cannon AFB has indicated that caliche is discontinuous, of variable thickness, and typically found within 30 feet of the surface.

The surface deposits of Melrose AFR consist of sand and gravel facies and playa deposits of the Blackwater Draw, Ogallala, and Chinle Formations. Eolian deposits of thin sand with interbeds of caliche of the Blackwater Draw Formation compose the Mesa surface. The northern part of Melrose AFR occupies the upper reach of the Portales Valley, and is composed of reworked material from the Blackwater Draw and Ogallala Formations. Eolian deposits of the Blackwater Draw Formation are present in the northern part of Melrose AFR as sand deposits and dunes, and the Chinle Formation is exposed in the southwestern portion of Melrose AFR near the Mesa (LGF 2004).

1.3.6 Hydrogeology

The lower portion of the Ogallala Formation is the primary regional aquifer for both potable and irrigation water. No deeper aquifers are utilized in the vicinity of Melrose AFR. The saturated Ogallala Formation deposits at Melrose AFR are within the western boundary of the Southern High Plains aquifer. In New Mexico, the Southern High Plains aquifer is part of a larger aquifer system extending from South Dakota to Texas and is commonly referred to as the Ogallala aquifer. The part of the Southern High Plains aquifer in New Mexico is composed of

hydraulically connected geologic units of late Tertiary or Quaternary age and is underlain by rocks of Triassic, Jurassic, and Cretaceous age. The unconfined Southern High Plains aquifer is composed primarily of the Ogallala Formation (LGF 2004). The Ogallala aquifer has a southeasterly regional gradient of about 17 ft/mi (0.0032 meters per meter). Well yields vary from less than 1 gallon per minute (gpm) in thin silts and sands and up to 1,600 gpm in thick sands and gravels (Lee Wan 1990).

Because of substantial annual pumpage from the aquifer (approximately 17 million gallons in 1995), water levels have been declining in the High Plains aquifer since development first began. In New Mexico, water levels in the Southern High Plains aquifer have declined less than the substantial declines recorded in other States (greater than 150 feet in parts of west Texas), but in New Mexico, the saturated thickness of the Southern High Plains aquifer is generally less than 100 feet.

Using 1978 water-level data, the depth to water was estimated to be about 100 feet below ground surface (bgs) throughout Melrose AFR. In 1987 and 1992, the United States Geological Survey (USGS) measured depth to water ranging from about 40 to 125 feet across Melrose AFR. In 2000, water levels measured in the center of Melrose AFR ranged from 50 to 150 feet bgs. During installation of USGS groundwater quality monitoring wells (Melrose AFR water-quality well [MWQ]-1 and 2), drill cuttings indicated a thin soil layer underlain by a thin caliche layer followed by various layers of sand and silt. A saturated gravel layer was encountered between 125 and 130 feet bgs and is underlain by a thin layer of sand, likely the base of the Ogallala Formation. The altitude of the gravel layer is consistent with the altitude of total depths in most windmills, stock wells, and monitoring wells that were installed in and around Melrose AFR to pump water from the unconfined aquifer. Underlying the gravel and thin sand layer is a clay layer about 50 feet thick, which grades into clay with various percentages of sand and silt with some sand stringers. A 2-foot-thick water-yielding zone was present in the clay, sand, and silt deposits of the Chinle Formation at about 235 feet bgs.

Drilling logs on file with the New Mexico Office of the State Engineer indicate a similar lithology in other areas of Melrose AFR not dominated by the Mesa. The top of the unconfined aquifer is typically between 80 and 150 feet bgs, aquifer thickness ranges from 5 to 40 feet, and the aquifer is typically underlain by a clay layer. Drilling at most sites did not proceed into this clay layer. This clay layer defines the base of the Ogallala Formation at Melrose AFR, which represents the base of the unconfined aquifer.

Within New Mexico, groundwater in the Southern High Plains aquifer generally flows eastward, which is considered the overall direction of regional flow in the unconfined aquifer. Water-level contours for the unconfined aquifer indicate groundwater flowing predominantly northeast from the Mesa (located in the southwestern part of Melrose AFR) to the Portales Valley (located in the northeastern part of Melrose AFR) in the Southern High Plains aquifer. The change in flow direction in the unconfined aquifer in the Portales Valley indicates two flow systems—local and regional. The local flow system is the groundwater in the southwest part of Melrose AFR that flows northeast from the Mesa, and the regional flow system is in the Portales Valley where groundwater flows east to southeast across the northern part of Melrose AFR. Direction of groundwater flow is a reflection of the contact between the Ogallala and Chinle Formations.

This contact determines groundwater gradient and saturated thickness of the unconfined aquifer in the Ogallala Formation. The local flow-system gradient is about 1.3 percent, and the regional flow-system gradient is about 0.1 percent. Saturated thickness of the aquifer increases as the local flow system merges with the regional flow system.

Based on USGS data, the median specific conductance and concentrations of dissolved solids in groundwater at Melrose AFR varied widely and can be separated into three distinct groups. The first group includes wells in the regional flow system (MWQ-3 through MWQ-7), which yielded groundwater with the smallest median specific-conductance values, ranging from 564 to 792 microsiemens per centimeter (µS/cm), and the smallest median concentrations of dissolved solids, ranging from 370 to 525 milligrams per liter (mg/L). Water from well MWQ-10, located atop the Mesa, had a median specific conductance of 635 µS/cm and a median concentration of dissolved solids of 380 mg/L, which is similar to the regional flow system (MWQ-3 through MWQ-7). In the second group, samples collected from wells MWQ-9 and -11 near the Mesa and from wells MWQ-12 and -13 near ephemeral streams in the southern part of Melrose AFR had larger specific-conductance values (1,100 to 1,436 µS/cm) and larger concentrations of dissolved solids (548 to 860 mg/L). Samples from a third group of wells with similar water quality included wells near and in the Impact Area (MWQ-14 through MWQ-17) and a well located west of the Impact Area (MWQ-8). Water from this group of wells had the largest median specific-conductance values, ranging from 2,575 to 10,665 µS/cm, and the largest median concentrations of dissolved solids, ranging from 1,700 to 6,200 mg/L.

Based on USGS data, the median concentration of dissolved solids (6,300 mg/L) in water from the Chinle Formation (MWQ-2) was comparable to the median concentrations in water from wells in the unconfined aquifer in the Impact Area, particularly well MWQ-16. Concentrations of dissolved solids varied substantially during the study period in water from wells MWQ-2 (5,260 to 7,700 mg/L) and MWQ-16 (1,870 to 7,400 mg/L).

Based on USGS data, water in well MWQ-2 in the confined aquifer was the warmest (27.2 ºC) followed by water in well MWQ-16 in the unconfined aquifer (22.7 ºC). Water temperatures in wells near and in the Impact Area generally were higher than water temperatures in wells near the Mesa and in the regional flow system.

Recharge to the Ogallala aquifer is primarily through precipitation. Diffuse areal recharge to the Southern High Plains aquifer has been estimated to range from 0.01 to 1.71 in/yr with most estimates less than 1 in/yr. Groundwater in the New Mexico part of the Southern High Plains aquifer is generally suitable for domestic, municipal, and irrigation uses. The water typically contains large concentrations of calcium, magnesium, and bicarbonate and potentially objectionable concentrations of chloride and fluoride for domestic use. Water from older formations, such as the Chinle, is known to be of poorer quality (LGF 2004).

Discharge from the Ogallala aquifer occurs through well pumping and springs along the eroded margins of the formation. The dominant uses of groundwater in the Cannon AFB and Melrose AFR areas are as potable and irrigation water. Numerous wells are found in the area, most of which provide only irrigation water.

The Ogallala aquifer will continue to be used as the primary source of potable and irrigation water for eastern New Mexico. Melrose AFR is within the Fort Sumner Groundwater Basin, as designated by the New Mexico State Engineer.

1.3.7 Soils

This section presents a summary of the most common near surface soil types at Melrose AFR. This summary is based on the United States Department of Agriculture (USDA) Natural Resources Conservation Service Soil Survey for Roosevelt County, New Mexico (USDA 2007).

The most common soil type on Melrose AFR is Springer loamy fine sand (map symbol Sf on **Figure 1-3**). The Springer series consists of very deep, well drained, moderately rapidly permeable soils that formed in eolian sediments and alluvium. The Springer loamy fine sand is present on nearly level to hummocky soils on interdunes and dunes of sand sheets on stream terrace alluvial plains.

Clovis loam, 0- to 1-percent slope phase (map symbol Cf on **Figure 1-3**) account for about 10 percent of the area at Melrose AFR. The Clovis series consists of very deep, well drained, moderately permeable soils that formed in medium and moderately fine textured sediments from quartzite, gneiss, schist, sandstone, and limestone. In the Clovis soils, the depth to the calcic horizon ranges from 18 to 36 inches. Clovis soils are found on fan terraces, piedmont slopes, and plains.

Stegall loam, 0- to 1-percent slope phase (map symbol St on **Figure 1-3**) account for about 10 percent of the area at Melrose AFR. The Stegall series consists of soils that are moderately deep to a petrocalcic horizon. Soils are well drained and moderately slowly permeable above a very slowly permeable petrocalcic horizon. They were formed in loamy eolian sediments over a layer of indurated caliche, which is underlain by loamy calcareous material derived from the Blackwater Draw Formation of the Pleistocene age. The depth to the petorcalcic horizon is from 20 to 36 inches. Stegall loams are found on broad, smooth, nearly level to very gently sloping plains.

Mansker loam, 1- to 3-percent slope phase (map symbol Md on **Figure 1-3**), also account for about 10 percent of the area at Melrose AFR. The Mansker series consists of very deep, well drained, moderately permeable soils that formed in loamy, calcareous eolian sediments derived mainly from the Blackwater Draw Formation of the Pleistocene age. In Mansker soils, the depth to the calcic horizon ranges from 6 to 20 inches. Mansker loams are found on nearly level to moderately sloping plains.

1.4 SITE DESCRIPTIONS AND HISTORY

1.4.1 SWMU 114 – Expended Ordnance and Industrial Waste Burial Site

SWMU 114 is located in the southeast quarter of the southwest quarter of Section 15 and the northeast quarter of the northwest quarter of Section 22, Township 1 North, Range 30 East, in Roosevelt County, New Mexico (**Figure 1-2**). SWMU 114 is sparsely vegetated and the

surrounding area is flat with mixed desert scrub that consists of prairie grass and cactus. A Melrose production well is located approximately 0.5 miles from SWMU 114, where the depth to groundwater was approximately 150 feet bgs in May 2000.

The SWMU consists of eight unlined burial trenches that were cleared of ordnance and have since been backfilled and closed. The approximate dimensions of these trenches were 20 to 40 feet wide, 100 to 200 feet long, and up to 50 feet deep. These trenches were used to dispose of a variety of military and industrial waste from Melrose AFR and Cannon AFB. The exact dates of operation and types of waste disposed of at SWMU 114 are not clearly defined. From approximately 1952 to 1962, drummed liquids were poured into the trenches and burned. Full drums of liquid may also have been placed in the trenches. Drummed liquids may have included unusable fuels, paints, sludge, and solvents. Approximately 12,000 to 15,000 pounds of scrap metal from practice bombs and munitions were disposed of in trenches every month.

During the 1995 RFI, soil was analyzed for VOCs, SVOCs, pesticides/polychlorinated biphenyls (PCBs), explosives, total metals, total mercury, total recoverable petroleum hydrocarbons (TRPH), and TOC. Groundwater was also analyzed for VOCs, SVOCs, pesticides/PCBs, herbicides, explosives, dioxins/furans, total metals, total mercury, anions, alkalinity, TRPH, cyanide, and sulfide (Ebasco 1995).

During the 2000 supplemental groundwater sampling event, groundwater was analyzed for VOCs, explosives, total metals, total mercury, anions, and cyanide. During the 2002 supplemental soil sampling program, soil was analyzed for VOCs, SVOCs, metals, mercury, and explosives (FW 2003). Soil sampling results were used to complete a screening-level ecological risk assessment (SLERA). The risk characterization indicated that risk may be present for multiple trophic-level species from the chemicals of potential ecological concern (COPEC) present in SWMU 114. Additional information is available in the RFI Report Addendum (FW 2003).

The results of both the 1995 and 2000 groundwater sampling events indicated that aluminum, iron, manganese, chloride, and sulfate concentrations were the only analytes that exceeded the New Mexico Water Quality Control Commission (WQCC) Groundwater Standards.

During the January 2009 site reconnaissance visit, four monitoring wells were verified at SWMU 114. Additionally, multiple burial pit locations were identified upgradient of the four monitoring wells at SWMU 114 and one, unfilled burial trench was observed east of the monitoring wells (approximately 20 to 40 feet wide, 100 to 200 feet long, and 10 to 15 feet deep) running north and south. It was unconfirmed if the burial trench contained any historic dumping; however, multiple discarded metal fragments were observed in the trench and additionally identified on the ground surface throughout SWMU 114.

1.4.2 SWMU 115 – Explosives Contaminated Burial Site

SWMU 115 is located in the southeast quarter of the southeast quarter of Section 28 and the northeast quarter of the northeast quarter of Section 33, Township 1 North, Range 34 East in Roosevelt County, New Mexico (**Figure 1-2**). The site lies within a small arroyo located in the

south central portion of Melrose. Surface water intermittently flows down an unfilled part of the arroyo during heavy rains.

This SWMU was reportedly used for the burial and disposal of unexploded ordnance (UXO) and has since been backfilled. The backfilled portion of the site reportedly measured approximately 15 to 20 feet wide and 600 feet in length. The contents of SWMU 115 are believed to consist entirely of UXO.

During the 1995 RFI, soil was analyzed for VOCs, SVOCs, pesticides/PCBs, explosives, total metals, total mercury, TRPH, and TOC. Groundwater was also analyzed for VOCs, SVOCs, pesticides/PCBs, herbicides, explosives, dioxins/furans, total metals, total mercury, anions, alkalinity, TRPH, cyanide, and sulfide (Ebasco 1995).

During the 2002 supplemental soil sampling program, soil was analyzed for VOCs, SVOCs, metals, mercury, and explosives. Soil sampling results were used to complete a SLERA. The risk characterization indicated that risk may be present for multiple trophic-level species from the COPEC present in SWMU 115. Additional information is available in the RFI Report Addendum (FW 2003).

The results of the 1995 groundwater sampling event indicated that aluminum, barium, cadmium, chromium, cobalt, iron, manganese, and nickel concentrations were the only analytes that exceeded the New Mexico WQCC Groundwater Standards. Groundwater samples were not collected at this site in 2000 because the boreholes were reportedly closed during the 1995 RFI.

During the January 2009 site reconnaissance visit, no monitoring wells were identified at SWMU 115. SWMU 115 consisted of native grasses with no identification of significant discarded refuse or dumping.

1.4.3 SWMU 117 – Domestic Waste Burial Site

SWMU 117 is located south of the range entrance road in the northeast quarter of the southwest quarter of Section 22, Township 1 North, Range 30 East, in Roosevelt County, New Mexico (**Figure 1-2**). This is a low lying area with a slight topographic depression that is most likely a semi-permanent playa, which receives surface runoff from surrounding areas.

Domestic waste from the control building and possibly UXO (as suggested during a September 1994 site visit) were disposed of at the site. This site is reportedly 90,000 square feet in size. Domestic wastes disposed at the site included food waste, solid waste, common household items, and possibly paints, solvents, batteries, pesticides, and herbicides.

During the 1995 RFI, soil was analyzed for VOCs, SVOCs, pesticides/PCBs, explosives, total metals, total mercury, TRPH, and TOC (Ebasco 1995). Groundwater was not encountered at this site during the 1995 RFI or the 2000 supplemental investigation (i.e., the wells were dry).

During the 2002 supplemental soil sampling program, soil was analyzed for VOCs, SVOCs, metals, mercury, and explosives (FW 2003). Soil sampling results were used to complete a SLERA. The risk characterization indicated that risk may be present for multiple trophic-level

species from the COPEC present in SWMU 117. Additional information is available in the RFI Report Addendum (FW 2003).

During the January 2009 site reconnaissance visit, four monitoring wells were verified at SWMU 117. SWMU 117 consisted of native grasses with no identification of significant discarded refuse or dumping.

1.4.4 AOC 1 – World War II Cantonment Disposal Site

The area investigated as AOC 1 is located in the northwest quarter of Section 17, Township 1 North, Range 30 East in Roosevelt County, New Mexico (**Figure 1-2**). Geophysical survey and field sampling activities during the 1995 RFI did not confirm disposal.

During World War II, this area was reportedly used as a cantonment dump/sanitary landfill site. The types of wastes and quantities of waste disposed at the site are unknown, but may include domestic wastes, motor pool waste, UXO, munitions, batteries, oils and fuels, and other discarded materials.

During the 1995 RFI, soil was analyzed for VOCs, SVOCs, pesticides/PCBs, explosives, total metals, total mercury, TRPH, and TOC. Groundwater was also analyzed for VOCs, SVOCs, pesticides/PCBs, herbicides, explosives, dioxins/furans, total metals, total mercury, anions, alkalinity, TRPH, cyanide, and sulfide (Ebasco 1995).

During the 2000 supplemental groundwater sampling event, groundwater was analyzed for VOCs, explosives, total metals, total mercury, anions, and cyanide. During the 2002 supplemental soil sampling program, soil was analyzed for VOCs, SVOCs, metals, mercury, and explosives. Soil sampling results were used to complete a SLERA. The risk characterization indicated that risk may be present for multiple trophic-level species from the COPEC present in AOC 1. Additional information is available in the RFI Report Addendum (FW 2003).

The results of the 1995 groundwater sampling event indicated that aluminum, chromium, iron, chloride, and sulfate concentrations were the only analytes that exceeded the New Mexico WQCC Groundwater Standards. The sampling results from 2000 indicated that aluminum, chromium, iron, manganese, chloride, and sulfate concentrations were the only analytes that exceeded the New Mexico WQCC Groundwater Standards.

During the January 2009 site reconnaissance visit, four monitoring wells were verified at AOC 1. No burial or landfill pits were identified during site reconnaissance but multiple discarded metal fragments and refuse were observed on the ground surface throughout AOC 1.

1.4.5 AOC 2 – Domestic Waste Burial Site

The area investigated as AOC 2, is located to the east of the Melrose AFR fire station in the northwest quarter of the southwest quarter of Section 22, Township 1 North, Range 30 East, in Roosevelt County, New Mexico (**Figure 1-2**).

This site was reportedly used for the disposal and/or burning of wastes. The site was reportedly 0.5 acres in size, but the type and volume of disposed waste is unconfirmed. The site was expected to contain domestic waste and possibly spent fuels, motor oil, batteries, paints, pesticides, and metals, but the geophysical survey and field sampling activities during the 1995 RFI field program did not confirm disposal.

During the 1995 RFI, soil was analyzed for VOCs, SVOCs, pesticides/PCBs, explosives, total metals, total mercury, TRPH, and TOC. Groundwater was also analyzed for VOCs, SVOCs, pesticides/PCBs, herbicides, explosives, dioxins/furans, total metals, total mercury, anions, alkalinity, TRPH, cyanide, and sulfide (Ebasco 1995).

During the 2000 supplemental groundwater sampling event, only the deep monitoring well had sufficient groundwater for sampling. Groundwater from this well was analyzed for VOCs, explosives, total metals, total mercury, anions, and cyanide. During the 2002 supplemental soil sampling program, soil was analyzed for VOCs, SVOCs, metals, mercury, and explosives. Soil sampling results were used to complete a SLERA. The risk characterization indicated that risk may be present for multiple trophic-level species from the COPEC present in AOC 2. Additional information is available in the RFI Report Addendum (FW 2003).

The groundwater sampling results from 1995 indicated that aluminum, iron, manganese, selenium, chloride, and sulfate concentrations were the only analytes that exceeded the New Mexico WQCC Groundwater Standards. The groundwater sampling results from 2000 indicated that aluminum, iron, manganese, chloride, and sulfate concentrations were the only analytes that exceeded the New Mexico WQCC Groundwater Standards. Based on RFI Report Addendum, there are currently two monitoring wells located at AOC 2 (FW 2003).

During the January 2009 site reconnaissance visit, two monitoring wells were verified at AOC 2. AOC 2 consisted of native grasses with no identification of burial pits or burning sites.

1.4.6 AOC 3 – Disposal/Burn Site

The area investigated as AOC 3, is located north of the former helicopter pad at the Melrose AFR operations area in the northeast quarter of the southwest quarter of Section 22, Township 1 North, Range 30 East, in Roosevelt County, New Mexico (**Figure 1-2**).

This relatively small site was reportedly used for burning and/or disposal of waste of unknown type and quantity. Possible wastes include garbage, residue from burning, motor oil, and metals, although the geophysical survey and field sampling activities during the 1995 RFI field program did not confirm disposal took place.

During the 1995 RFI, soil was analyzed for VOCs, SVOCs, pesticides/PCBs, explosives, total metals, total mercury, TRPH, and TOC (Ebasco 1995). Groundwater was not encountered at this site during the 1995 RFI or the 2000 supplemental investigation (i.e., well was dry).

During the 2002 supplemental soil sampling program, soil was analyzed for VOCs, SVOCs, metals, mercury, and explosives. Soil sampling results were used to complete a SLERA. The risk characterization indicated that risk may be present for multiple trophic-level species from

the COPEC present in AOC 3. Additional information is available in the RFI Report Addendum. Based on RFI Report Addendum, there is currently one monitoring well located at AOC 3 (FW 2003).

During the January 2009 site reconnaissance visit, one monitoring well was verified at AOC 3. AOC 3 consisted of native grasses with no identification of burial pits or burning sites.

1.4.7 AOC 4 – Northwest Munitions Disposal Site

The area investigated as AOC 4, is located in the east central part of Section 17 with some overlap into Section 16, Township 1 North, Range 30 East, in Roosevelt County, New Mexico (**Figure 1-2**).

The site is flat with native scrub vegetation that alternates with areas free of vegetation. AOC 4 was reportedly used from 1952 to 1960 for disposal of munitions debris and UXO. The exact dimensions are unknown, but the site may occupy as much as 15 acres.

During the 1995 RFI, soil was analyzed for VOCs, SVOCs, pesticides/PCBs, explosives, total metals, total mercury, TRPH, and TOC. Groundwater was also analyzed for VOCs, SVOCs, pesticides/PCBs, herbicides, explosives, dioxins/furans, total metals, total mercury, anions, alkalinity, TRPH, cyanide, and sulfide (Ebasco 1995).

During the 2002 supplemental soil sampling program, soil was analyzed for VOCs, SVOCs, metals, mercury, and explosives. Soil sampling results were used to complete a SLERA. The risk characterization indicated that risk may be present for multiple trophic-level species from the COPEC present in AOC 4. Additional information is available in the RFI Report Addendum (FW 2003).

The groundwater sampling results from 1995 indicated that aluminum, barium, cadmium, chromium, cobalt, iron, manganese, nickel, chloride, and sulfate concentrations were the only analytes that exceeded the New Mexico WQCC Groundwater Standards. Groundwater samples were not collected at this site in 2000 because the boreholes were reportedly closed during the 1995 RFI. Based on RFI Report Addendum, there are no monitoring wells currently located at AOC 4 (FW 2003).

During the January 2009 site reconnaissance visit, no monitoring wells were identified at AOC 4. AOC 4 consisted of native grasses with no identification of burial or landfill pits but multiple discarded metal fragments were observed on the ground surface throughout AOC 4.

1.4.8 Groundwater Quality Well Network

Based on the January/February 2009 sampling event, the Groundwater Quality Well Network consists of 24 monitoring wells (see **Figure 1-2**) located throughout the facility used to evaluate groundwater quality, groundwater elevations, and aquifer sustainability. These monitoring wells are screened in two aquifers:

- **Triassic Dockum Group (or Chinle Formation):** MWQ-2, MWQ-20, and MWQ-22

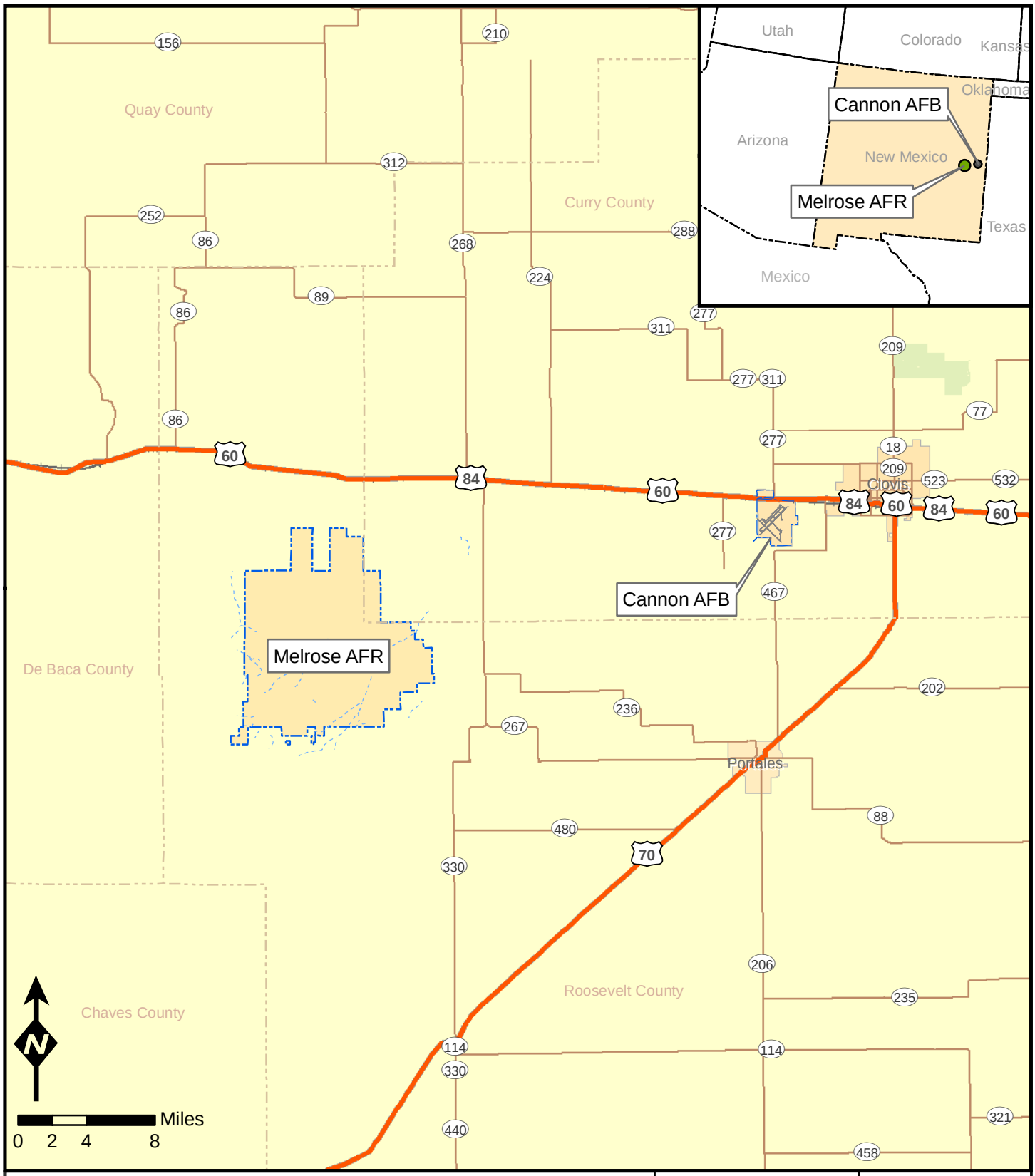
- **Ogallala Formation:** MWQ-1, MWQ-3, MWQ-4, MWQ-5, MWQ-6, MWQ-7, MWQ-8, MWQ-10, MWQ-14, MWQ-18, MWQ-19, MWQ-21, Melrose AFR water-level well (MWL)-1, MWL-2, MWL-3, MWL-4, MWL-5, MWL-6, MWL-7, MWL-8, and MWL-9

The USGS New Mexico Water Science Center has worked in cooperation with USAF to perform groundwater sampling and analysis at Melrose AFR. The objective of this program was to evaluate groundwater quality and groundwater elevations at Melrose AFR.

USGS collected groundwater sampling in 2002 and 2003 from the monitoring well network. All groundwater samples were analyzed for specific conductance, DO, turbidity, temperature, pH, dissolved solids, alkalinity, cyanide, sulfide, major ions, nutrients, TOC, and trace elements. Additionally, one groundwater sample from each well was analyzed for organochlorine and organophosphorus pesticides, explosives, perchlorate, chlorofluorocarbons (CFCs), hydrogen and oxygen stable isotopes, and dissolved gases. One sample from each well in the SWMU/AOC area was analyzed for VOCs, SVOCs, and total organic halogens. The USGS screened for potential human-induced contaminants in groundwater across Melrose AFR and concluded that no significant concentrations of pesticides, explosives, VOCs, SVOCs, total organic halogens, or perchlorate were detected during the 2002 and 2003 sampling events (LGF 2004). USGS also concluded that groundwater quality near the Mesa (southwest portion of Melrose AFR) was similar to the regional flow system and that groundwater in the central portion of the range (near SWMUs and AOCs) was very different compared to regional flow system. Groundwater in this area may be mixing between the Ogallala Formation and the Chinle Formation. Leakage between these two systems appears to be likely based on similarities between specific conductance, total dissolved solids, water temperature, major ions, and specific trace elements. However, the differences could not be attributed solely to upward leakage from the deeper confined aquifer of the Chinle Formation (LGF 2004).

Twelve monitoring wells within the Melrose AFR Groundwater Quality Well Network were sampled in 2005 and analyzed for trace and major elements, dissolved solids, organic carbon, sulfide, ammonia, and nitrate plus nitrite. Sixteen monitoring wells within the Melrose AFR Groundwater Quality Well Network were sampled in 2007 and analyzed for VOCs, SVOCs, trace and major elements, dissolved solids, TOC, alkalinity, phosphorus, ammonia, nitrate plus nitrite, and perchlorate.

According to USGS, groundwater quality results from the 2005 and 2007 sampling event were consistent with previous monitoring. Groundwater in the impact area of the range had a different composition than groundwater from the same formation in other areas of the range. Compositional differences included higher concentrations of dissolved solids and major ions in monitoring wells MWQ-14, MWQ-15, and MWQ-16. Groundwater from the Dockum Group wells had compositional similarities with groundwater from the wells in the Ogallala Formation. This suggests an interaction between the aquifers. According to the USGS, groundwater elevation data indicated that an upward flow from the Dockum Group to the Ogallala Formation is possible. A summary of historical analytical data is presented in **Appendix D**. However, the 2002 and 2003 analytical data is not presented in **Appendix D** because individual monitoring well concentrations were not presented in the 2004 report. This report only presented median concentrations and ranges for concentrations.



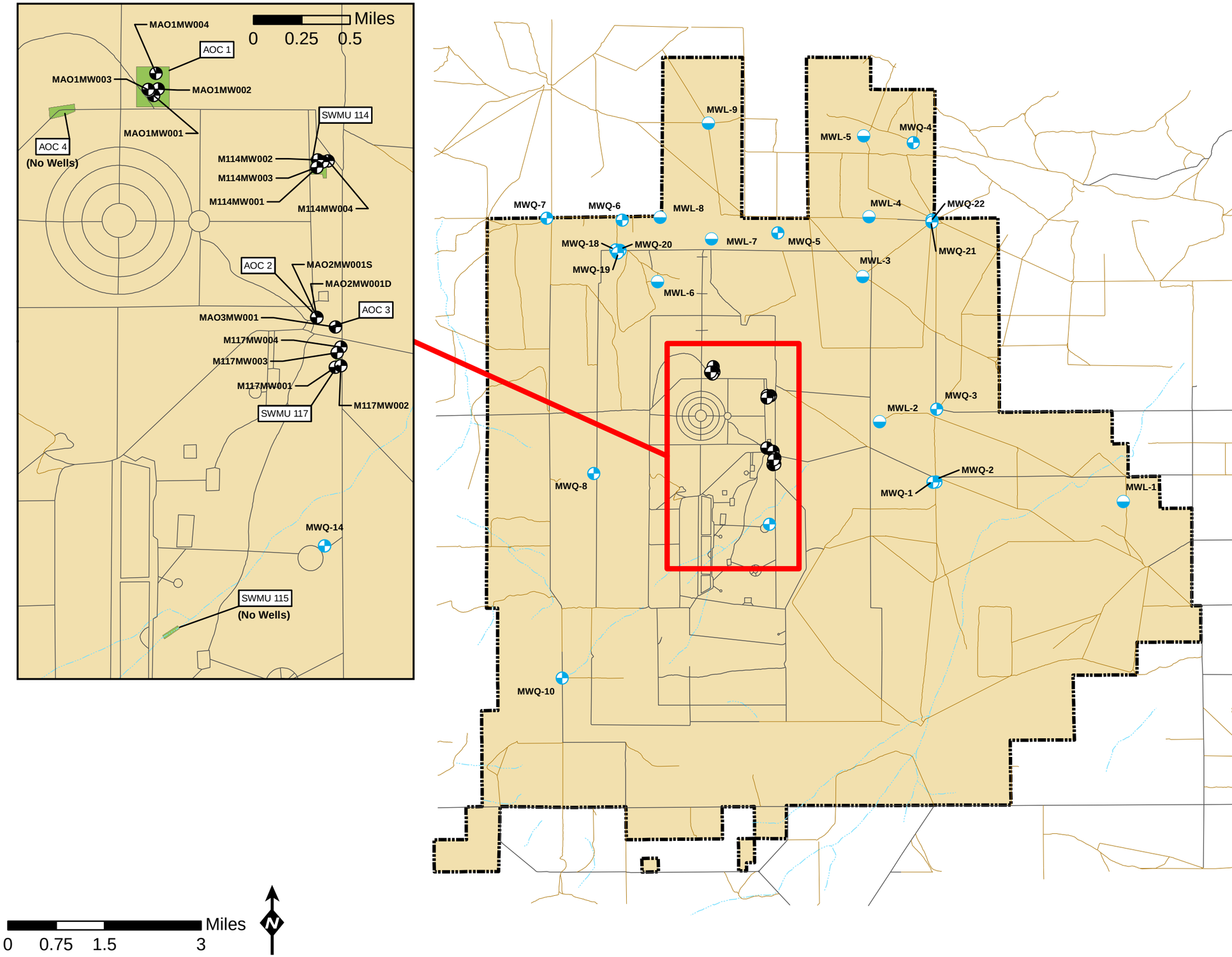
County Boundary
Seasonal Streams
Air Force Installation
National Forest
Highway
State Road
Major Railroad Lines

GIS Data Souces
AFB & AFR installation boudaries, streams: Cannon AFB / Basemap data: ESRI's Streetmap USA

URS

Figure 1-1
Facility Location Map

Dsgn By: DW	Melrose Air Force Range New Mexico
Drn By: DW	
Chk'd By: JV	
Sbmt'd By: JV	Projection: NAD 83 State Plane New Mexico East



Legend

- Unimproved roads
- Improved roads
- Streams
- AOC/SWMU
- Melrose boundary

SWMU / AOC Wells

- Monitoring Well

Groundwater Quality Network Wells

- Monitoring & Altitude Well
- Water Altitude Well

Basemap GIS data sourced from Cannon AFB

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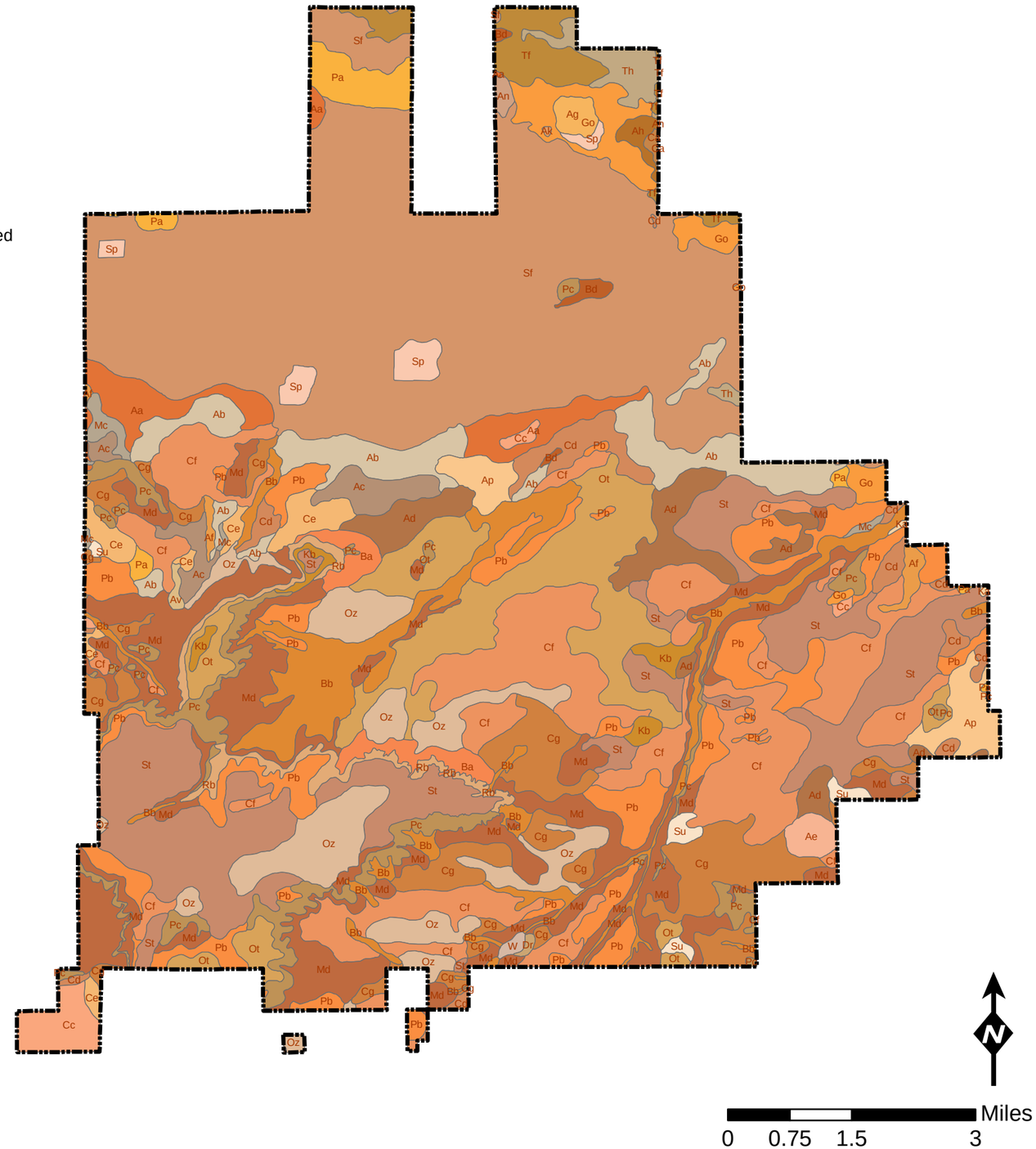
US Army Corps of Engineers

Figure 1-2
Installation Overview

Designed By: DW	Melrose Air Force Range New Mexico
Drawn By: DW	
Checked By: JV	
Submitted By: JV	Projection: NAD 83 State Plane New Mexico East

Type	Description
Aa	Amarillo loamy fine sand, 0 to 3 percent slopes
Ab	Amarillo fine sandy loam, 0 to 1 percent slopes
Ac	Amarillo fine sandy loam, 1 to 3 percent slopes
Ad	Amarillo loam, 0 to 1 percent slopes
Ae	Amarillo loam, 1 to 3 percent slopes
Af	Amarillo and Clovis soils, 0 to 3 percent slopes, severely eroded
Ag	Arch loamy fine sand
Ah	Arch fine sandy loam
Ak	Arch loam
Am	Arch soils, severely eroded
An	Arvana loamy fine sand, 0 to 3 percent slopes
Ap	Arvana fine sandy loam, 0 to 1 percent slopes
Av	Arvana soils, 0 to 3 percent slopes, severely eroded
Ba	Berthoud sandy loam, 2 to 9 percent slopes
Bb	Bippus and Spur soils
Bd	Blown-Out and dune land
Ca	Church clay loam
Cc	Clovis loamy fine sand, 0 to 3 percent slopes
Cd	Clovis fine sandy loam, 0 to 1 percent slopes
Ce	Clovis fine sandy loam, 1 to 3 percent slopes
Cf	Clovis loam, 0 to 1 percent slopes
Cg	Clovis loam, 1 to 3 percent slopes
Dr	Drake soils
Go	Gomez loamy fine sand
Ka	Kimbrough fine sandy loam
Kb	Kimbrough loam
Mc	Mansker and Portales fine sandy loams, 1 to 3 percent slopes
Md	Mansker and Portales loams, 1 to 3 percent slopes
Ot	Olton loam, 0 to 1 percent slopes
Oz	Olton-Zita loams, 0 to 1 percent slopes
Pa	Portales fine sandy loam, 0 to 1 percent slopes
Pb	Portales loam 0 to 1 percent slopes
Pc	Potter soils, 0 to 9 percent slopes
Rb	Rough broken land
Sf	Springer loamy fine sand
Sp	Springer soils, severely eroded
St	Stegall loam, 0 to 1 percent slopes
Su	Stegall loam, 1 to 3 percent slopes
Tf	Tivoli fine sand
Th	Tivoli-Arch complex
W	Water



Legend

- Melrose AFR
- Aa
- Ab
- Ac
- Ad
- Ae
- Af
- Ag
- Ah
- Ak
- Am
- An
- Ap
- Av
- Ba
- Bb
- Bd
- Ca
- Cc
- Cd
- Ce
- Cf
- Cg
- Dr
- Go
- Ka
- Kb
- Mc
- Md
- Ot
- Oz
- Pa
- Pb
- Pc
- Rb
- Sf
- Sp
- St
- Su
- Tf
- Th
- W

Soil data published by the U.S. Department of Agriculture, Natural Resources Conservation Service, 2007

URS

US Army Corps of Engineers®

Figure 1-3
Soil Survey Map

Designed By: DW	Melrose Air Force Range New Mexico
Drawn By: DW	
Checked By: JV	
Submitted By: JV	Projection: NAD 83 State Plane New Mexico East

2.1 SUMMARY OF FIELD ACTIVITIES

Prior to initial baseline groundwater monitoring/sampling in January/February 2009, monitoring well inspections were conducted to assess the overall condition of the wells located at Melrose AFR. Further information on monitoirng well inspections may be found in **Section 2.2** with monitoring well recommendations found in **Section 6**. Horizontal and vertical surveying of monitoring wells, including top of casing elevations, was preformed by Lydick, Inc., a professional surveyor licensed in the State of New Mexico. Additional information for surveying of all monitoring wells may be found in **Section 2.3**. Depth to groundwater levels were measured at all accessible site monitoring wells. Summary of groundwater level activities may be found in **Sections 2.4** and **3.1**. The 2009 initial baseline groundwater sampling completed at SWMU/AOC and Groundwater Quality Well Network monitoring wells is found in **Section 2.6** (see **Figure 2-1**). Field activities completed, summarized by sites, during the January 2009 initial baseline sampling event included:

SWMUs/AOCs

SWMU 114

- At four of four monitoring wells: Completed horizontal and vertical surveying, well condition inspections, measured water level and depth to bottom (DTB), recorded water quality parameters during well purging, and collected and analyzed groundwater samples.
- No other monitoring wells associated with SWMU 114 were identified during site reconnaissance.

SWMU 115

- Initial site reconnaissance visit verified no monitoring wells currently exist at SWMU 115; therefore, no field activities were conducted.

SWMU 117

- At four of four monitoring wells: Completed horizontal and vertical surveying, well condition inspections, and measured water levels and DTB.
- At one of four monitoring wells (M117MW002): Recorded water quality parameters during well purging, and collected and analyzed groundwater samples.
- At three of four monitoring wells (M117MW001, M117MW003, and M117MW004): Water levels were too low for monitoring and/or sampling activities to be completed.
- No other monitoring wells associated with SWMU 117 were identified during site reconnaissance.

AOC 1

- At four of four monitoring wells: Completed horizontal and vertical surveying, well condition inspections, measured water level and DTB, recorded water quality parameters during well purging, and collected and analyzed groundwater samples.

- No other monitoring wells associated with AOC 1 were identified during site reconnaissance.

AOC 2

- At two of two monitoring wells: Completed horizontal and vertical surveying, well condition inspections, and measured water level and DTB.
- At one of two monitoring wells (MAO2MW001D): Recorded water quality parameters during well purging, and collected and analyzed groundwater samples.
- At one of two monitoring wells (MAO2MW001S): Water level was dry and no monitoring and/or sampling activities were completed.
- No other monitoring wells associated with AOC 2 were identified during site reconnaissance.

AOC 3

- At one of one monitoring wells (MAO3MW001): Completed horizontal and vertical surveying and well condition inspection, and measured water level and DTB.
- At MAO3MW001: Water level was dry and no monitoring and/or sampling activities were completed.
- No other monitoring wells associated with AOC 3 were identified during site reconnaissance.

AOC 4

- Initial site reconnaissance visit verified no monitoring wells currently exist at AOC 4; therefore, no field activities were conducted.

Groundwater Quality Well Network

- At 11 of 24 monitoring wells: Completed horizontal and vertical surveying, well condition inspections, measured water level and DTB, recorded water quality parameters during well purging, and collected and analyzed groundwater samples.
- At five of 24 monitoring wells (MWQ-3, MWQ-5, MWQ-6, MWQ-7, MWQ-10): Wells contained dedicated submersible pumps operated within underground vault that were inaccessible; thus, water levels and DTB were not obtained. Completed horizontal and vertical surveying, well condition inspections, recorded water quality parameters during well purging (via an accessible outflow spout), and collected and analyzed groundwater samples.
- At one of 24 monitoring wells (MWQ-4): Well contained solar-powered, dedicated submersible pump that was inaccessible; thus, water level and DTB were not obtained. Completed horizontal and vertical surveying, well condition inspections, recorded water quality parameters during well purging (via an accessible outflow spout), and collected and analyzed groundwater samples.
- At four of 24 monitoring wells (MWL-4, MWL-6, MWL-7, MWL-9 [previous windmill wells]): Completed horizontal and vertical surveying, well condition inspections, measured

water level and DTB, recorded water quality parameters during well purging, and collected and analyzed groundwater samples.

- At three of 24 monitoring wells (MWL-1, MWL-3, MWL-8): Wells (previous windmill wells) contained miscellaneous obstructing pump parts (sucker rods, etc.). Completed horizontal and vertical surveying, well condition inspections, and measured water level and approximate DTB (due to soft bottom). Monitoring and sampling was not completed due to well obstructions and unknown information of well contents.
- At two of 24 monitoring wells (MWQ-15 and MWQ-16): Neither well could be located during site reconnaissance. It was determined that monitoring well MWQ-15 was a duplicate well identifier used by the USGS for monitoring well MAO2MW001D, and MWQ-16 was a duplicate well identifier used by the USGS for monitoring well M114MW004.
- Two additional wells, MWQ-19 and MWQ-1, were identified during site reconnaissance. MWQ-19 is located in the same protective casing as MWQ-18. MWQ-1 is adjacent to MWQ-2.
    - At MWQ-19: Completed horizontal and vertical surveying, well condition inspection, measured water level and DTB, recorded water quality parameters during well purging, and collected and analyzed groundwater samples.
    - At MWQ-1: Completed horizontal and vertical surveying, well condition inspection, and measured water level and DTB. Water level was dry and no monitoring and/or sampling activities were completed.
- At one of 24 monitoring wells (MWL-2): Well (previous windmill wells) contained obstructing pump parts (sucker rods, etc.) which prevented obtaining water level and DTB measurements. Completed horizontal and vertical surveying and well condition inspection. Monitoring and sampling was not completed due to well obstructions and unknown information of well contents.
- At one of 24 monitoring wells (MWQ-8): Completed horizontal and vertical surveying, well condition inspection, and measured water level and DTB. Water level was dry and no monitoring and/or sampling activities were completed.

All field activities were completed in accordance with field protocols included in the Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009).

2.2 WELL CONDITION INSPECTION

Well condition inspections were performed at each well during the initial site reconnaissance and water level round on January 14-16, 2009. Completed Well Inspection Forms are found in **Appendix A.** Well inspections sought to verify presence of: identification tag, well type completion, presence and condition of bollards, protective casings, well pads, and type of cap. All locks identified at monitoring wells were discarded and replaced with a new lock. Well inspections for SWMU/AOC and Groundwater Quality Well Network monitoring wells are summarized in **Tables B-1** and **B-2.** A photo log is presented in **Appendix B.** Recommendations are provided in **Section 6**.

2.3 SURVEYING

All 15 SWMU/AOC and 24 Groundwater Quality Well Network monitoring wells were surveyed by Lydick, Inc., a professional surveyor licensed in the State of New Mexico, on January 14-16, 2009. Land surveying was completed using the New Mexico East State Plane North American Datum (NAD) 83 and North American Vertical Datum (NAVD) 88 (adjusted) in decimal feet. All horizontal coordinates were measured to the nearest fiftieth of a foot. All vertical coordinates were measured to the nearest tenth of a foot. URS personnel assisted Lydick in locating wells and all surveying was completed with oversight by the URS field manager. All electronically-collected horizontal and vertical survey data is presented in *USAF Melrose Bombing Range 2009 Monitor Well Survey Data Report* included in **Appendix C**.

2.4 GROUNDWATER LEVEL MEASUREMENT

Water levels were collected prior to the start of groundwater sample collection at all accessible monitoring wells from January 14-16, 2009. Water levels were measured from the surveyed elevation reference points on the tops of the polyvinyl chloride (PVC) casings or, in the case of metal or concrete well casings, from the northern edge of the casing using a Heron™ electronic water level meter. Measurements were taken to the nearest hundredth of a foot, and were documented on a Water Level Data Sheet and in the field logbook. The probes were decontaminated before use, between wells, and at the conclusion of measurement activities. Additional groundwater level measurement information may be found in **Section 3.1**.

2.5 MONITORING WELL PURGING AND WATER QUALITY PARAMETER MEASUREMENT

Prior to purging, static water level and well depth measurements were taken at each available well in order to calculate the well volume. At wells containing dedicated submersible pumps or obstructing pump parts (sucker rods, etc.), water levels and well depths were not collected. Monitoring wells without dedicated submersible pumps were purged and sampled using an air bladder pump. Monitoring wells with dedicated submersible pumps were accessed using an outflow spout with an adjustable valve used to control water flow. Low-flow (i.e., minimal drawdown) purging and sampling techniques, as outlined in Standard Operating Procedure (SOP) No. 2: Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009), were used to maintain pumping rates between 0.1 and 0.5 liters per minute (lpm). Water quality parameters were measured at wells using a YSI 556 MPS water quality probe fitted with a flow-through cell. Water quality parameters measured during purging included DO, temperature, pH, conductivity, and ORP. Turbidity was measured with a LaMotte 2020 turbidity meter. Purging continued until water quality parameters had stabilized for three consecutive readings within ranges outlined in SOP No. 2: Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009).

Field water quality parameter measurement results are presented in **Section 4.4** of this document. The measurements were recorded on water Sample Collection Field Sheets, which are included

in **Appendix A**. Final field water quality parameter measurements are presented in **Tables 4-11** and **4-12,** with field water quality parameter ranges presented in **Tables 4-13** and **4-14**.

The field instrumentation was calibrated according to the manufacturer guidelines prior to shipment to the site for field use. The water quality probe was calibrated once a week, and calibration was verified each day with certified standards.

2.6 GROUNDWATER SAMPLING

The following sections summarize groundwater sampling activities at the SWMU/AOC and Groundwater Quality Well Network monitoring wells.

2.6.1 SWMU/AOC Groundwater Sampling

Groundwater samples were collected at SWMU 114 from four monitoring wells; at SWMU 117 from one monitoring well; at AOC 1 from four monitoring wells; and at AOC 2 from one monitoring well between January 26 and February 3, 2009 (see **Figure 2-1**). Sampling was planned at wells M117MW001, M117MW003, and M17MW004 (SWMU 117); MAO2MW001S (AOC 2); and MAO3MW001 (AOC 3); however, water levels were dry and no monitoring and/or sampling activities were completed.

A summary of the SWMU/AOC groundwater monitoring well sampling locations is presented in **Table 2-1**. After purging was completed, sample containers were filled from the discharge line at a rate of 0.5 lpm or less. All samples were collected and analyzed for VOCs, SVOCs, organochlorine pesticides, metals, hexavalent chromium, perchlorate, bromide, chloride, fluoride, sulfate, explosives, TOC, phosphate, and ammonia.

Groundwater samples were placed in appropriately-labeled sample containers, packed in coolers with wet ice to attain a temperature of 4 °C, and shipped to APPL via Federal Express. One field duplicate sample was collected at MAO1MW004 and one Matrix Spike/Matrix Spike Duplicate (MS/MSD) set was collected at MAO1MW002. Quality Control (QC) duplicate samples were collected at a 10-percent rate (i.e., one per every 10 samples collected) for all parameters (**Table 2-1**). Laboratory QC MS/MSD were collected at a 5-percent rate (i.e., one per every 20 samples collected) for all parameters (**Table 2-1**). One field split sample was collected at MA01MW003. QA samples were collected at a 5-percent rate (i.e., one per every 20 samples collected) for all parameters (**Table 2-1**). QA samples were placed in appropriately labeled sample containers, packed in coolers with wet ice to attain a temperature of 4 °C, and shipped to EMAX Lab via Federal Express.

2.6.2 Groundwater Quality Well Network Groundwater Sampling

Groundwater samples were collected from the following 18 Groundwater Quality Well Network monitoring wells between January 20 and February 2, 2009 (see **Figure 2-1**): MWQ-2, MWQ-3, MWQ-4, MWQ-5, MWQ-6, MWQ-7, MWQ-10, MWQ-14, MWQ-18, MWQ-19, MWQ-20, MWQ-21, MWQ-22, MWL-4, MWL-5, MWL-6, MWL-7, and MWL-9. Sampling was planned at well MWQ-8, but the water level was dry and no monitoring and/or sampling activities were

completed. Sampling was planned at wells MWL-1, MWL-2, MWL-3, and MWL-8, but these wells contained obstructing pump parts (sucker rods, etc.) that prohibited the completion of monitoring and sampling activities. Sampling was also planned at wells MWQ-15, MWQ-16, and MWQ-17 but wells could not be located during site reconnaissance. However, it was later determined that MWQ-15, MWQ-16, and MWQ-17 were duplicate well identifications used by the USGS, due to their proximity to nearby wells.

A summary of the Groundwater Quality Well Network monitoring well sampling locations is presented in **Table 2-2**. After purging was completed, sample containers were filled from the discharge line at a rate of 0.5 lpm or less. All samples were collected and analyzed for metals, TDS, hexavalent chromium, alkalinity, TOC, phosphate, ammonia, and nitrate/nitrite.

Groundwater samples were placed in appropriately labeled sample containers, packed in coolers with wet ice to attain a temperature of 4 °C, and shipped to APPL via Federal Express. Three field duplicate samples were collected at MWQ-3, MWQ-7, and MWQ-10 and two MS/MSD sets were collected at MWQ-2 and MWQ-6. QC duplicate samples were collected at a 10-percent rate (i.e., one per every 10 samples collected) for all parameters (**Table 2-2**). Laboratory QC MS/MSD sets were collected at a 5-percent rate (i.e., one per every 20 samples collected) for all parameters (**Table 2-2**). Two field split samples were collected at MWQ-7 and MWQ-10. QA samples were collected at a 5-percent rate (i.e., one per every 20 samples collected) for all parameters (**Table 2-2**). QA samples were placed in appropriately labeled sample containers, packed in coolers with wet ice to attain a temperature of 4 °C, and shipped to EMAX Lab via Federal Express.

2.7 INVESTIGATION-DERIVED WASTE DISPOSAL PROCEDURES

Investigation-derived waste (IDW) from the January 2009 sampling event consisted of purge and decontamination water. All IDW collected during groundwater sampling was temporarily containerized in a 40-gallon holding tank secured in the bed of the pickup truck. At the completion of daily field activities, the holding tank was discharged into 55-gallon drums located at a designated area for IDW storage. Decontamination water was additionally containerized in 5-gallon buckets and transferred into a separate 55-gallon drum located at the IDW storage area. All IDW storage drums were labeled according to the field sampling plan outlined in the Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009). IDW procedures were as follows:

- All water was containerized during well purging.
- The purged well water was field-screened using a photoionization detector (PID) (all PID readings were less than 5 parts per million (ppm) above background).

All IDW is currently staged at an authorized IDW storage area located at Melrose AFR and will be disposed of according to procedures outlined in the Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009).

TABLE 2-1
SWMU/AOC GROUNDWATER MONITORING WELLS SAMPLED
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Well Number	Sample Date	URS Field ID	Field Water Quality Parameters[1]	Laboratory Parameters[2]	Field MS/MSD Sample ID	Field QC Duplicate Sample ID	Field QA Split Sample ID[3]
M114MW001	1/26/2009	M114MW001	X	X			
M114MW002	1/26/2009	M114MW002	X	X			
M114MW003	1/27/2009	M114MW003	X	X			
M114MW003*	1/28/2009	M114MW003	X	*			
M114MW004	1/26/2009	M114MW004	X	X			
M117MW002	1/30/2009	M117MW002	X	X			
MAO1MW001	1/29/2009	MAO1MW001	X	X			
MAO1MW002	1/28/2009	MAO1MW002	X	X	MAO1MW002 MS/MSD		
MAO1MW003	1/29/2009	MAO1MW003	X	X			MAO1MW003 Split
MAO1MW004	1/27/2009	MAO1MW004	X	X		MAO1MW054	
MAO1MW004*	1/28/2009	MAO1MW004	X	*		MAO1MW054*	
MAO2MW001D	1/30/2009	MAO2MW001D	X	X			
MAO2MW001D*	2/3/2009	MAO2MW001D	X	*			

Notes:
AOC = Area of Concern
ID = Identification Number
MS/MSD = Matrix Spike/Matrix Spike Duplicate
MW = Monitoring Well
QA = Quality Assurance
QC = Quality Control
QC duplicate, MS/MSD, and QA split samples were analyzed for the full suite of laboratory parameters.
SWMU = Solid Waste Management Unit
[1]Field parameters included: DO, ORP, pH, temperature, specific conductance, and turbidity.
[2]Laboratory parameters included: VOCs, SVOCs, organochlorine pesticides, explosives, TAL metals, hexavalent chromium, perchlorate, bromide, chloride, fluoride, sulfate, sulfide, TOC, phosphate, and ammonia.
[3]QA Split Samples analyzed at EMAX Laboratories, Torrance, California.
*Wells resampled for laboratory parameters: hexavalent chromium, bromide, chloride, fluoride, sulfate, and perchlorate. Remaining laboratory parameters analyzed from previous samples.

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TABLE 2-2
GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS SAMPLED
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Well Number	Sample Date	URS Field ID	Field Water Quality Parameters[1]	Laboratory Parameters[2]	Field MS/MSD Sample ID	Field QC Duplicate Sample ID	Field QA Split Sample ID[3]
MWQ-2	1/21/2009	MWQ-2	X	X	MWQ-2 MS/MSD		
MWQ-3	1/21/2009	MWQ-3	X	X		MWQ-53	
MWQ-4	2/2/2009	MWQ-4	X	X			
MWQ-5	1/23/2009	MWQ-5	X	X			
MWQ-6	1/20/2009	MWQ-6	X	X	MWQ-6 MS/MSD		
MWQ-7	1/20/2009	MWQ-7	X	X		MWQ-57	MWQ-7 Split
MWQ-10	1/20/2009	MWQ-10	X	X		MWQ-60	MWQ-10 Split
MWQ-14	1/29/2009	MWQ-14	X	X			
MWQ-18	1/22/2009	MWQ-18	X	X			
MWQ-19	1/22/2009	MWQ-19	X	X			
MWQ-20	1/22/2009	MWQ-20	X	X			
MWQ-21	1/23/2009	MWQ-21	X	X			
MWQ-22	1/23/2009	MWQ-22	X	X			
MWL-4	1/30/2009	MWL-4	X	X			
MWL-4*	2/2/2009	MWL-4	X	*			
MWL-5	2/2/2009	MWL-5	X	X			
MWL-6	2/2/2009	MWL-6	X	X			
MWL-7	2/2/2009	MWL-7	X	X			
MWL-9	1/22/2009	MWL-9	X	X			

Notes:

ID = Identification Number

MWL = Melrose Air Force Range Water Level Well

MWQ = Melrose Air Force Range Water Quality Well

MS/MSD = Matrix Spike/Matrix Spike Duplicate

QA = Quality Assurance

QC = Quality Control

QC duplicate, MS/MSD QA split samples were analyzed for the full suite of laboratory parameters.

[1]Field parameters included: DO, ORP, pH, temperature, specific conductance, and turbidity.

[2]Laboratory parameters included: TAL metals, hexavalent chromium, total dissolved solids, alkalinity, total organic carbon, phosphate, nitrate/nitrite, and ammonia.

[3]QA Split Samples analyzed at EMAX Laboratories, Torrance, California.

*Wells resampled for laboratory parameters: total dissolved solids, hexavalent chromium, and alkalinity. Remaining laboratory parameters analyzed from previous samples.

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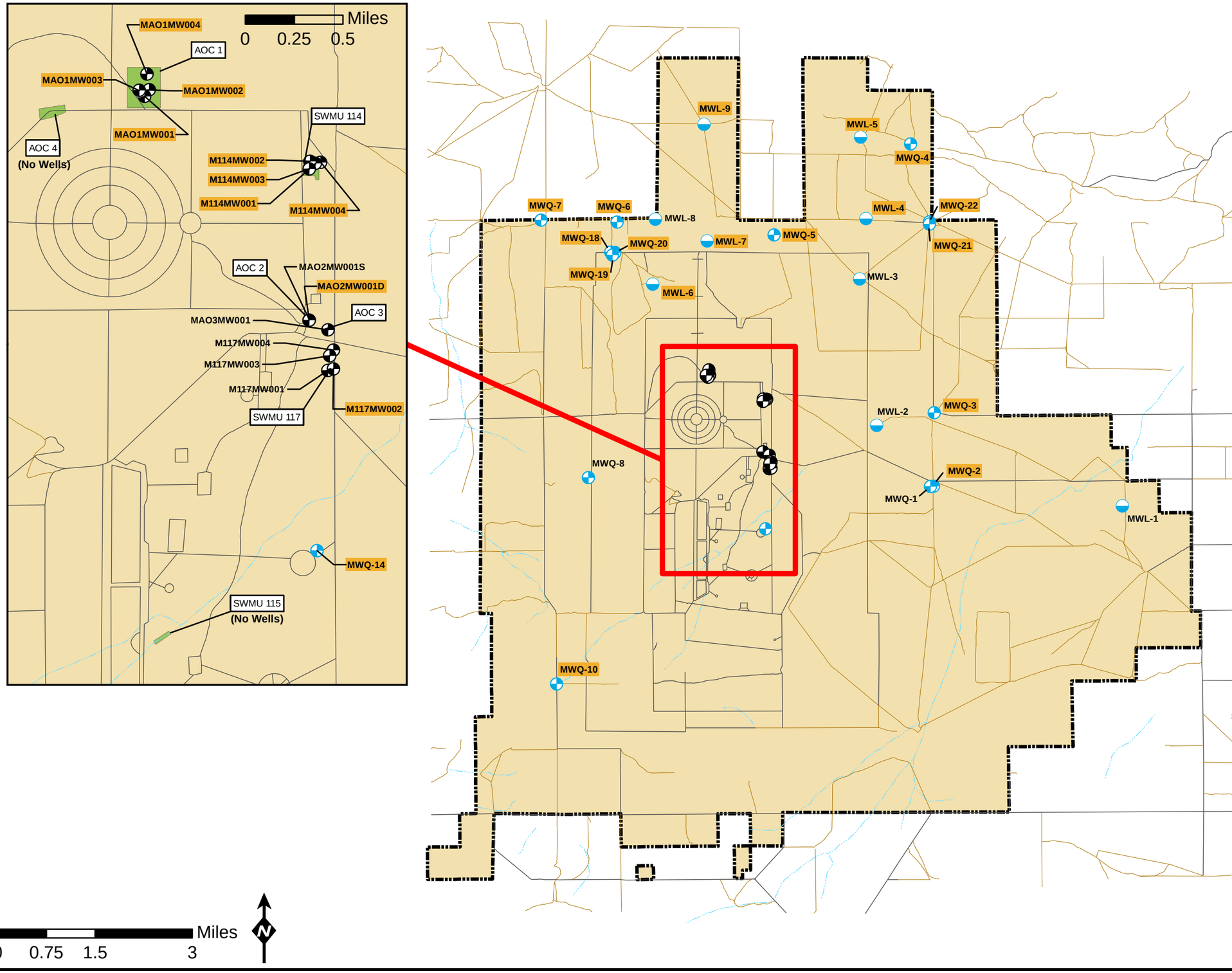

Legend

- Unimproved roads
- Improved roads
- Streams
- AOC/SWMU
- Melrose boundary

SWMU / AOC Wells

- Monitoring Well

Groundwater quality Network Wells

- Monitoring & Altitude Well
- Water Altitude Well

- Initial baseline groundwater sampling locations

Basemap GIS data sourced from Cannon AFB

URS

US Army Corps of Engineers®

Figure 2-1
SWMU/AOC and Groundwater Quality Well Network Initial Baseline Groundwater Sampling Locations

Designed By: DW	Melrose Air Force Range New Mexico
Drawn By: DW	
Checked By: JV	
Submitted By: JV	Projection: NAD 83 State Plane New Mexico East

3.1 GROUNDWATER LEVELS

The following sections summarize the groundwater level data.

3.1.1 SWMU/AOC Water Level Round

SWMU/AOC groundwater levels were measured at all monitoring wells on January 14 and 15, 2009 (**Figure 3-1**). Groundwater level measurements were completed in as short a time period as practicable to minimize the effects of water table fluctuations. SWMU/AOC monitoring well water levels are presented in **Table 3-1**. During the water level round completed in January 2009, water levels were measured at 15 monitoring wells located within SWMUs 114 and 117, and AOCs 1, 2, and 3. Groundwater in the area of SWMU 117, AOC 2, and AOC 3 was found at approximately 105 feet below top of casing (BTOC) from nearby MAO2MW001D. Monitoring well depths varied from approximately 42 to 184 feet BTOC. Summary of water level measurements is presented below:

- Water levels from four monitoring wells located at SWMU 114 ranged from approximately 149 to 152 feet BTOC.

- Water levels from one of four monitoring wells at SWMU 117 (M117MW004) measured approximately 40 feet BTOC. The remaining monitoring wells contained trace amounts of water. The 2009 water level data measured at the four SWMU 117 wells are not believed to be representative of the aquifer water level and are not shown in Figure 3-1.

- Water levels from four monitoring wells located at AOC 1 ranged from approximately 143 to 144 feet BTOC.

- At AOC 2, the water level from one of two monitoring wells (MAO2MW001D) was approximately 105 feet BTOC. The remaining monitoring well at AOC 2 (MAO2MW001S), a shallower well, was found to be dry.

- At AOC 3, a single, flush-mount monitoring well contained trace amounts of water. The 2009 water level data measured at MAOMW001 is not believed to be representative of the aquifer water level and is not shown in Figure 3-1.

3.1.2 Groundwater Quality Well Network Water Level Round

Groundwater levels were measured at all Groundwater Quality Well Network monitoring wells on January 14-16, 2009 (**Figure 3-1**). Groundwater level measurements were completed in as short a time period as practicable to minimize the effects of water table fluctuations. The Groundwater Quality Well Network monitoring well water levels are presented in **Table 3-1**. During the water level round completed in January 2009, water levels were measured at 17 monitoring wells located within the Groundwater Quality Well Network.

Two of the measured wells (MWQ-1 and MWQ-19) were not identified as part of the planned Groundwater Quality Well Network monitoring wells but were identified during site

reconnaissance and measured for water levels; however, MWQ-1 was found to be dry. Additionally one other monitoring well (MWQ-8) was found to be dry. Due to historical sampling and water level measurements being completed at this well, a second attempt was made on January 20 for water level measurement; however, MWQ-8 was verified as being dry. At MWL-2, part of the planned Groundwater Quality Well Network groundwater level round, water level and DTB measurements were not obtained due to windmill pumping parts (sucker rod) restricting access. Additionally, six Groundwater Quality Well Network monitoring wells (MWQ-3, MWQ-4, MWQ-5, MWQ-6, MWQ-7, and MWQ-10) consisted of dedicated submersible pumps which restricted well access and neither water level nor DTB measurements were completed. Of the 15 monitoring wells located within the Groundwater Quality Well Network for which water levels were obtained, water levels ranged from approximately 12 to 122 feet BTOC, and total well depths ranged from approximately 35 to 238 feet BTOC.

3.2 HYDRAULIC GRADIENTS

The following section summarizes hydraulic gradients at Melrose AFR.

3.2.1 Melrose AFR Hydraulic Gradients

Figure 3-1 presents an interpreted water table elevations map based on the January 2009 water level data. The water table map indicates groundwater generally flows to the northeast. The local flow system is the groundwater in the southwest part of Melrose AFR that flows northeast from the Mesa, and the regional flow system is in the Portales Valley where groundwater flows east to southeast across the northern part of Melrose AFR. Direction of groundwater flow is a reflection of the contact between the Ogallala and Chinle Formations. This contact determines groundwater gradient and saturated thickness of the unconfined aquifer in the Ogallala Formation. The local flow-system gradient is about 1.3 percent, and the regional flow-system gradient is about 0.1 percent. Saturated thickness of the aquifer increases as the local flow system merges with the regional flow system (LGF 2004).

TABLE 3-1
WATER LEVEL MEASUREMENTS
SWMU/AOC AND GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Well Number	Date	Well TOC Elevation (FT MSL)	Well Depth (FT BTOC)	Depth to Water (FT BTOC)	Water Level Elevation (FT MSL)
M114MW001	1/14/2009	4327.02	181.95	150.07	4176.95
M114MW002	1/14/2009	4327.95	184.25	150.56	4177.39
M114MW003	1/14/2009	4329.46	184.55	151.70	4177.76
M114MW004	1/14/2009	4324.78	183.80	149.15	4175.63
M117MW001	1/14/2009	4359.75	43.12	42.71	4317.04
M117MW002	1/14/2009	4357.67	43.05	40.68	4316.99
M117MW003	1/14/2009	4355.55	42.86	42.47	4313.08
M117MW004	1/14/2009	4353.88	43.30	Dry	Dry
MAO1MW001	1/15/2009	4344.47	162.65	143.49	4200.98
MAO1MW002	1/15/2009	4343.38	157.40	142.65	4200.73
MAO1MW003	1/15/2009	4345.11	161.90	144.20	4200.91
MAO1MW004	1/15/2009	4342.71	162.25	142.92	4199.79
MAO2MW001D	1/14/2009	4356.20	184.50	105.53	4250.67
MAO2MW001S	1/14/2009	4355.78	49.55	Dry	Dry
MAO3MW001	1/14/2009	4350.11	42.15	42.00	4308.11
MWQ-1	1/16/2009	4293.68	136.50	Dry	Dry
MWQ-2	1/16/2009	4293.56	238.52	122.05	4171.51
MWQ-3	1/14/2009	4271.04	NA	NA	NA
MWQ-4	1/16/2009	4203.10	NA	NA	NA
MWQ-5	1/16/2009	4234.32	NA	NA	NA
MWQ-6	1/15/2009	4272.88	NA	NA	NA
MWQ-7	1/15/2009	4262.61	NA	NA	NA
MWQ-8*	1/15/2009	4469.43	111.20	Dry	Dry
MWQ-10	1/15/2009	4641.83	NA	NA	NA
MWQ-14	1/15/2009	4381.87	121.35	65.81	4316.06
MWQ-18	1/15/2009	4289.97	115.83	101.33	4188.64
MWQ-19	1/15/2009	4289.99	203.00	101.05	4188.94
MWQ-20	1/15/2009	4289.92	200.00	83.33	4206.59
MWQ-21	1/16/2009	4209.26	61.60	44.75	4164.51
MWQ-22	1/16/2009	4209.38	153.00	41.90	4167.48
MWL-1	1/16/2009	4241.01	121.00	114.00	4127.01
MWL-2	1/16/2009	4293.23	UNK	UNK	UNK
MWL-3	1/16/2009	4226.98	92.00	59.90	4167.08
MWL-4	1/16/2009	4220.88	59.79	50.00	4170.88
MWL-5	1/16/2009	4196.42	35.00	12.21	4184.21
MWL-6	1/16/2009	4304.61	135.00	118.42	4186.19
MWL-7	1/16/2009	4258.30	108.90	74.75	4183.55
MWL-8	1/15/2009	4262.06	113.00	73.88	4188.18
MWL-9	1/15/2009	4241.81	49.93	44.70	4197.11

Notes:

AOC = Area of Concern
SWMU = Solid Waste Management Unit
BTOC = Below Top of Casing
TOC = Top of Casing
FT = Feet
MSL = Mean Sea Level
MW = Monitoring Well
NA = Not Available. Wells contained dedicated submersible pump. Water levels and well depth to bottom not obtained.
UNK = Unknown. Well contained pumping equipment (e.g. sucker rods) and water levels and well depth to bottom not obtained.
* = Water level and depth to bottom measurements were attempted for MWQ-8 on 1/15/09 and again on 1/20/09.

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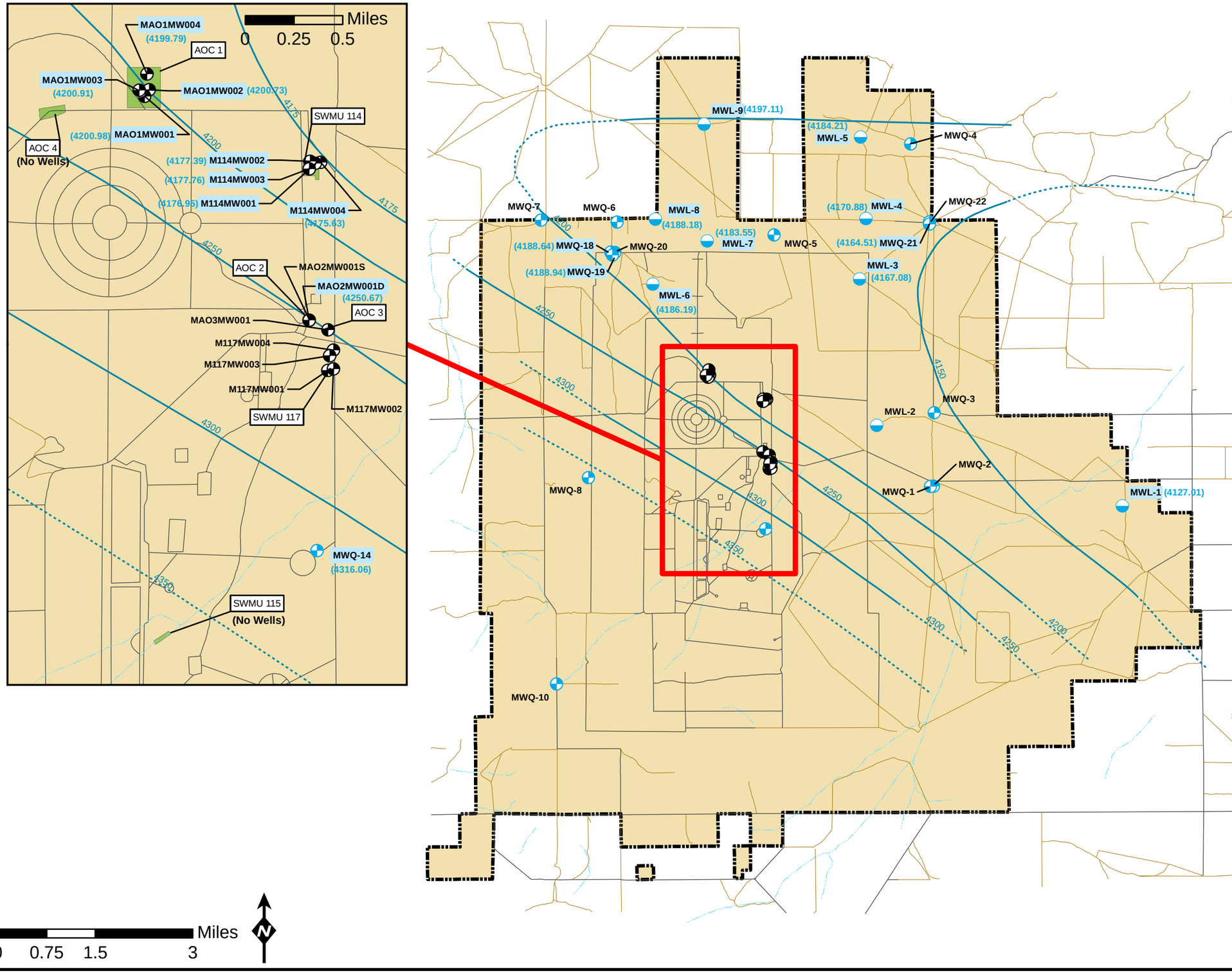

Figure 3-1
Water Table Elevation Map
January 2009

Designed By: DW	Melrose Air Force Range New Mexico
Drawn By: DW	
Checked By: JV	
Submitted By: JV	Projection: NAD 83 State Plane New Mexico East

4.1 SUMMARY OF ANALYTICAL RESULTS

Groundwater samples were analyzed for VOCs (Method 8260B), SVOCs (Method 8270C), organochlorine pesticides (Method 8081A), explosives (Method 8330), perchlorate (Method 6850), dissolved TAL metals (Methods 6010B/6020A/7470A), wet chemistry parameters: total dissolved solids (Method 160.1), hexavalent chromium (Method 7196A/7199), bromide, chloride, fluoride, sulfate and phosphorus, total organophosphate (Method 9056), sulfide (376.1), alkalinity (310.1), TOC (9060), ammonia (Method 350.1), and nitrate-nitrite (Method 353.2) by APPL in Fresno, California. A summary of all analytical results for groundwater samples collected from Melrose AFR SWMUs 114 and 117 and AOCs 1 and 2 (present and historical) are discussed below and presented in **Appendix D**.

4.1.1 Chemicals Reported in Groundwater Samples Collected at SWMU 114 – Expended Ordnance and Industrial Waste Burial Site

Table 4-1 summarizes the compounds detected, frequency of detection, and maximum concentrations in groundwater from the SWMU 114 wells. Dissolved metals and wet chemistry parameters were detected in groundwater samples collected from SWMU 114 wells. In addition, trace levels of the VOCs chloroethane, toluene, and vinyl chloride were detected in monitoring well M114MW001. The essential nutrients dissolved metals: calcium, magnesium, potassium, and sodium were detected in all samples. Low levels of all other dissolved metals were detected in most samples. Chloride, sulfate, bromide, and perchlorate were detected in all samples. Fluoride and sulfide were detected in low levels in sample M114MW002. **Table 4-2** summarizes the comparison of SWMU 114 maximum groundwater concentrations to groundwater screening levels.

4.1.2 Chemicals Reported in Groundwater Samples at SWMU 117 – Domestic Waste Burial Site

Monitoring well M117MW002 was the only well sampled from SWMU 117. **Table 4-3** summarizes the compounds detected, frequency of detection and maximum concentrations in groundwater from M117MW002. Dissolved metals and wet chemistry parameters were detected in groundwater samples collected from M117MW002. The essential nutrients dissolved metals: calcium, magnesium, potassium, and sodium were detected and low levels of all other dissolved metals were detected in M117MW002. Wet chemistry parameters: chloride and sulfate were detected and low levels of bromide, fluoride, perchlorate, and TOC were also detected in monitoring well M117MW002. **Table 4-4** summarizes the comparison of SWMU 117 maximum groundwater concentrations to groundwater screening levels.

4.1.3 Chemicals Reported in Groundwater Samples at AOC 1 – World War II Cantonment Disposal Site

Table 4-5 summarizes the compounds detected, frequency of detection, and maximum concentrations in groundwater from the AOC 1 wells. Dissolved metals and wet chemistry parameters were detected in groundwater samples collected from AOC 1 wells. The essential nutrients dissolved metals: calcium, magnesium, potassium, and sodium were detected in all

samples and low levels of all other dissolved metals were detected in most samples. Chloride, sulfate, bromide, fluoride, and perchlorate were detected in all samples; TOC was detected at low levels in most samples. Ammonia was detected at low levels in one sample. **Table 4-6** summarizes the comparison of SWMU 114 maximum groundwater concentrations to groundwater screening levels.

4.1.4 Chemicals Reported in Groundwater Samples at AOC 2 – Domestic Waste Burial Site

Monitoring well MAO2MW001D was the only well sampled from AOC 2. **Table 4-7** summarizes the compounds detected, frequency of detection and maximum concentrations in groundwater from MAO2MW001D. Dissolved metals and wet chemistry parameters were detected in groundwater samples collected from MAO2MW001D. In addition, trace levels of the VOCs benzene, chloroethane, toluene, and vinyl chloride were detected in monitoring well MAO2MW001D. The essential nutrients dissolved metals: calcium, magnesium, potassium, and sodium were detected and low levels of all other dissolved metals were also detected. Chloride, sulfate, bromide, fluoride, perchlorate, and TOC were also detected in monitoring well MAO2MW001D. **Table 4-8** summarizes the comparison of SWMU 114 maximum groundwater concentrations to groundwater screening levels.

4.1.5 Chemicals Reported in Groundwater Samples Collected at Groundwater Quality Well Network

Table 4-9 summarizes the compounds detected, frequency of detection, and maximum concentrations in groundwater from the Groundwater Quality Well Network monitoring wells. Dissolved metals and wet chemistry parameters were detected in groundwater samples collected from the Groundwater Quality Well Network monitoring wells. The essential nutrients dissolved metals: calcium, magnesium, potassium, and sodium were detected in all samples and all other dissolved metals were detected in most samples. Alkalinity, ammonia, nitrate/nitrite, total dissolved solids, and TOC were detected in most samples. Hexavalent chromium and phosphorus (total organophosphate) were reported at low levels in one sample. Hexavalent chromium for samples MWQ-5, MWQ-21, and MWQ-22 were analyzed by Method 7199 instead of Method 7196A. These samples were analyzed by 7199 because they were analyzed on Saturday, January 24, 2009 and the instrument for Method 7199 was already calibrated; therefore, samples were analyzed by Method 7199. The use of either method generates quality and definitive data. **Table 4-10** summarizes the comparison of Groundwater Quality Well Network monitoring well maximum groundwater concentrations to groundwater screening levels.

4.2 DATA QUALITY REVIEW/VALIDATION PROCESS

The analytical data generated by APPL was checked for accuracy, precision, representativeness, comparability, and completeness. The data review/validation process for this project consisted of data generation, reduction, and two levels of review.

4.2.1 Laboratory Data Reduction and Validation

APPL completed the first level of chemical data review, which contained multiple sublevels. APPL had the initial responsibility for the correctness and completeness of the data. **Section 3.40** in the Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009) identifies the laboratory reduction and validation processes.

4.2.2 Data Review

The URS Project Chemist completed the second level of chemical data review. All of the analytical data were subjected to this review. The data review was completed using Automated Data Review (ADR) and following the procedures described below and utilizing QA/QC criteria specified in the Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR **Section 3** - Quality Assurance Project Plan (QAPP) (URS 2009). The data review also followed the Department of Defense Quality Systems Manual for Environmental Laboratories (DoD QSM) Version 3 (DoD 2006), where applicable. ADR reports are presented on CD-ROM in **Appendix D**. The QC parameters included in the review of the laboratory analytical data packages included the following:

- Completeness of package
- Review of laboratory case narrative and cooler receipt form
- Compliance with required holding times
- Presence or absence of compounds in method and field blanks
- Laboratory duplicate samples
- Surrogate spike recovery in samples
- Laboratory control samples (LCS)
- Results of MS/MSD samples
- Field duplicate samples

4.2.3 Target Analyte Confirmation Data Validation

Full data validation on 10 percent of the analytical data as defined in the project QAPP was not completed on this sampling round since analytical results are being used to establish a baseline of groundwater conditions at the wells sampled. The full validation of analytical data will be completed on 10 percent of the analytical data collected during 2009. Additional sampling rounds are planned in May and November of 2009; therefore, data validation will be completed after the November 2009 sampling round. When completed, the data validation will include the review of all parameters identified above and the additional parameters listed below:

- Mass spectrometer tuning information (VOCs and SVOCs only)
- Initial calibration
- Calibration verification
- Sample preparation log review
- Chromatogram review
- Standard preparation log review
- Sample preparation log review
- Run log review
- Sample result recalculation using the raw data

4.3 DATA REVIEW RESULTS

The data review process was implemented to assess the quality of data generated by the field sampling program with respect to the QA/QC objectives established for the project. Data were assessed to evaluate whether the results are of adequate quality to support decision making. Data assessment involved a consideration of data use, the decision type, identification of data that were qualified or did not meet project QC requirements, and limitations on data use. The data review was based on the laboratory data summary reports.

4.3.1 Groundwater Quality Wells Network Parameters Evaluated during Data Review

The following sections collectively summarize the review of dissolved metals, hexavalent chromium, and wet chemistry parameters: total dissolved solids, alkalinity, TOC, phosphorus (total orthophosphate), ammonia, and nitrate-nitrite data for APPL Sample Delivery Groups (SDGs). The following SDGs were included:

Sample Delivery Groups	
57934	57939
57954	57961
58024	

4.3.2 Area of Concern Parameters Evaluated during Data Review

The following sections collectively summarize the review of VOCs, SVOCs, organochlorine pesticides, explosives, dissolved metals, perchlorate, hexavalent chromium, and wet chemistry parameters: bromide, chloride, fluoride, sulfate, sulfide, TOC, phosphorus (total orthophosphate), and ammonia data for APPL SDGs. The following SDGs were included:

Sample Delivery Groups	
57981	58006
58016	58024
58054	

The data review processes are presented in the following subsections.

4.3.2.1 Data Package Completeness

The data packages were reviewed to verify that each SDG contained the data contractually required in the deliverable and that all samples listed on the chain of custody (COC) forms were analyzed for the requested parameters. COCs are presented in **Appendix D**. The review indicated that the data packages were complete with the exception of the phosphorus (total orthophosphate) result from monitoring well MWL-4 and hexavalent chromium from monitoring well M117MW002. Monitoring wells MWL-4 and M117MW002 were sampled on Friday, January 30, 2009 for analyses that included hexavalent chromium and phosphorus (total orthophosphate). The samples were received by the laboratory on Saturday, January 31, 2009 but sample analysis of hexavalent chromium and phosphorus (total orthophosphate) were not be completed until Monday, February 2, 2009. Since hexavalent chromium was outside holding time criteria, the laboratory contacted URS and the laboratory was directed to cancel the hexavalent chromium analysis for MWL-4 and M117MW002 and these wells would be re-sampled for hexavalent chromium. MWL-4 was re-sampled for hexavalent chromium and submitted to the laboratory for analysis. Monitoring well M117MW002 could not be re-sampled for hexavalent chromium because the well was dry; therefore, there is not a hexavalent chromium result for sample M117MW002. Since the phosphorus (total orthophosphate) sample for monitoring well MWL-4 was outside of holding time, it was not analyzed by the laboratory. Through a misunderstanding, the laboratory mistakenly thought that phosphorus (total orthophosphate) was also going to be re-sampled from MWL-4; however, MWL-4 was not re-sampled for phosphorus (total orthophosphate); therefore, there is not a phosphorus (total orthophosphate) result for sample MWL-4.

4.3.2.2 Laboratory Case Narrative

The laboratory case narratives indicated SDG 57961 had samples that were received at temperatures less than 2ºC. No samples were received frozen and no qualification of data was required due to receipt temperature. TOC samples in several SDGs were subcontracted to Columbia Analytical Services (CAS) with permission from URS due to instrument problems at APPL. The 40-mL VOC vial for trip blank sample TB-300109 in SDG 58024 and trip blank samples TB1-270109 and TB2-270109 in SDG 58006 had headspace smaller than a pea. Since the headspace was smaller than a pea in size, the analysis was completed and results were reported. No qualification of data was required.

Other problems noted in the laboratory case narratives involved QC discrepancies that are discussed in the following sections.

4.3.2.3 Holding Times

Review of the sample collection and analyses dates involved comparing the COCs, the chemical results summary forms, and the raw data forms for accuracy, consistency, and holding time compliance. All samples were prepared and analyzed within the required holding time criteria with the exception of hexavalent chromium, total dissolved solids, alkalinity, and TOC. Hexavalent chromium was analyzed as soon as possible after arrival to the laboratory; however, almost all samples were analyzed outside the 24-hour holding time criteria. The hexavalent chromium samples were analyzed on average approximately 2 to 3 hours outside holding time. Alkalinity in sample MWQ-6 was analyzed one day outside the holding time criteria of 7 days. Several TOC samples were analyzed approximately 1 to 2 days outside the holding time criteria of 28 days, and TOC sample MWQ-20 was analyzed approximately 5 days outside holding time criteria. Several total dissolved solids samples were analyzed approximately one day outside the holding time criteria of 7 days. Since data was analyzed outside holding time criteria, data quality may have been impacted; therefore, sample data was qualified accordingly. Qualifications due to holding time criteria are listed in the table below.

SDG	Field ID	Parameter	Analyte	Qualification
57934	MWQ-6	Wet chemistry	Alkalinity	**J**
57934	MWQ-10	Hexavalent chromium	Hexavalent chromium	**UJ**
57934	MWQ-60	Hexavalent chromium	Hexavalent chromium	**UJ**
57934	MWQ-7	Hexavalent chromium	Hexavalent chromium	**UJ**
57939	MWQ-53	Hexavalent chromium	Hexavalent chromium	**UJ**
57954	MWL-9	Hexavalent chromium	Hexavalent chromium	**UJ**
57954	MWQ-20	Wet chemistry	Total organic carbon	**UJ**
57961	MWQ-21	Hexavalent chromium	Hexavalent chromium	**UJ**
57961	MWQ-22	Hexavalent chromium	Hexavalent chromium	**UJ**
57981	M114MW001	Hexavalent chromium	Hexavalent chromium	**UJ**
57981	M114MW004	Hexavalent chromium	Hexavalent chromium	**UJ**
57981	M114MW001	Wet chemistry	Total organic carbon	**UJ**
57981	M114MW002	Wet chemistry	Total organic carbon	**UJ**
57981	M114MW004	Wet chemistry	Total organic carbon	**UJ**
58006	M114MW003	Hexavalent chromium	Hexavalent chromium	**UJ**
58006	MAO1MW002	Hexavalent chromium	Hexavalent chromium	**UJ**
58006	MAO1MW004	Hexavalent chromium	Hexavalent chromium	**UJ**
58006	MAO1MW054	Hexavalent chromium	Hexavalent chromium	**UJ**
58006	M114MW003	Wet chemistry	Total organic carbon	**UJ**
58006	MAO1MW004	Wet chemistry	Total organic carbon	**J**
58006	MAO1MW054	Wet chemistry	Total organic carbon	**J**
58016	MAO1MW001	Hexavalent chromium	Hexavalent chromium	**UJ**
58016	MAO1MW003	Hexavalent chromium	Hexavalent chromium	**UJ**
58016	MWQ-14	Hexavalent chromium	Hexavalent chromium	**UJ**
58041	MWL-4	Hexavalent chromium	Hexavalent chromium	**UJ**
58041	MWL-5	Hexavalent chromium	Hexavalent chromium	**UJ**
58041	MWL-6	Hexavalent chromium	Hexavalent chromium	**UJ**
58041	MWL-7	Hexavalent chromium	Hexavalent chromium	**UJ**
58041	MWL-4	Wet chemistry	Total organic carbon	**J**

SDG	Field ID	Parameter	Analyte	Qualification
58041	MWL-5	Wet chemistry	Total organic carbon	**J**
58041	MWL-6	Wet chemistry	Total organic carbon	**J**
58041	MWL-7	Wet chemistry	Total organic carbon	**J**
58041	MWQ-4	Wet chemistry	Total organic carbon	**J**
58054	MAO2MW001D	Hexavalent chromium	Hexavalent chromium	**UJ**

4.3.2.4 Blank Samples

Blank samples were analyzed to assess the existence and magnitude of contamination during laboratory activities. All method blank results for SVOCs, explosives, organochlorine pesticides, and wet chemistry parameters were reported nondetect in method blanks. Eight trip blank samples were submitted for VOC analyses during the baseline sampling round. The VOCs acetone, toluene, m,p-xylene, n-Butylbenzene, and 1,2,4-Trimethylbenzene were detected in the trip blanks. Analytes detected in method blanks and trip blanks are listed in the table below.

Blank ID	Parameter	Analyte	Concentration	Units
B090122	Dissolved Metals	Magnesium	17.8	µg/L
A090122	Dissolved Metals	Molybdenum	0.15	µg/L
AA090122	Dissolved Metals	Antimony	0.041	µg/L
B090123	Dissolved Metals	Mercury	0.062	µg/L
A090123	Dissolved Metals	Magnesium	16.8	µg/L
AB090126	Dissolved Metals	Chromium	0.14	µg/L
AC090126	Dissolved Metals	Antimony	0.079	µg/L
AC090126	Dissolved Metals	Zinc	7.2	µg/L
A090128	Dissolved Metals	Magnesium	18.3	µg/L
A090203	Dissolved Metals	Molybdenum	0.070	µg/L
AA090203	Dissolved Metals	Antimony	0.067	µg/L
AS090204	VOCs	1,2,4-Trimethylbenzene	0.2	µg/L
AS090204	VOCs	1,2-Dichlorobenzene	0.2	µg/L
AS090204	VOCs	Dichlorodifluoromethane	0.2	µg/L
AS090204	VOCs	Hexachlorobutadiene	0.8	µg/L
AS090204	VOCs	m,p-xylene	0.2	µg/L
AS090204	VOCs	n-Butylbenzene	0.6	µg/L
AS090204	VOCs	Naphthalene	0.4	µg/L
AS090204	VOCs	p-Isopropyltoluene	0.3	µg/L
AS090204	VOCs	sec-Butylbenzene	0.3	µg/L
BS090205	VOCs	n-Butylbenzene	0.2	µg/L
AAA090203	Dissolved Metals	Chromium	0.21	µg/L
AAA090203	Dissolved Metals	Silver	0.050	µg/L
AS090205	VOCs	n-Butylbenzene	0.2	µg/L
A090130	Dissolved Metals	Magnesium	15.7	µg/L
A090130	Dissolved Metals	Sodium	184	µg/L
AH090211	VOCs	1,2,4-Trichlorobenzene	0.4	µg/L
AH090211	VOCs	1,2,4-Trimethylbenzene	0.2	µg/L
AH090211	VOCs	1,3,5-Trimethylbenzene	0.2	µg/L
AH090211	VOCs	4-Chlorotoluene	0.2	µg/L
AH090211	VOCs	Dichlorodifluoromethane	0.2	µg/L

Blank ID	Parameter	Analyte	Concentration	Units
AH090211	VOCs	Hexachlorobutadiene	0.5	µg/L
AH090211	VOCs	m,p-xylene	0.2	µg/L
AH090211	VOCs	Methylene chloride	0.4	µg/L
AH090211	VOCs	n-Butylbenzene	0.5	µg/L
AH090211	VOCs	p-Isopropyltoluene	0.3	µg/L
AH090211	VOCs	sec-Butylbenzene	0.2	µg/L
AH090211	VOCs	tert-Butylbenzene	0.3	µg/L
AH090211	VOCs	Tetrachloroethene	0.2	µg/L
A090202	Dissolved Metals	Magnesium	16.5	µg/L
C090211	Dissolved Metals	Calcium	30.7	µg/L
C090211	Dissolved Metals	Antimony	0.088	µg/L
C090211	Dissolved Metals	Chromium	0.070	µg/L
C090211	Dissolved Metals	Molybdenum	0.16	µg/L
TB2-260109	VOCs	Acetone	3.4	µg/L
TB2-260109	VOCs	m,p-Xylene	0.3	µg/L
TB1-270109	VOCs	n-Butylbenzene	0.2	µg/L
TB2-270109	VOCs	Acetone	3.6	µg/L
TB2-270109	VOCs	m,p-Xylene	0.2	µg/L
TB1-280109	VOCs	m,p-Xylene	0.3	µg/L
TB1-280109	VOCs	Toluene	0.2	µg/L
TB1-290109	VOCs	1,2,4-Trimethlybenzene	0.2	µg/L
TB1-290109	VOCs	m,p-Xylene	0.2	µg/L
TB-300109	VOCs	m,p-Xylene	0.3	µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported nondetect or at concentrations greater than five times (5X) the associated blank concentration (10X for common laboratory contaminants) did not require qualification.

Field ID	Parameter	Analyte	New RL	Qualification
MWQ-10	Dissolved Metals	Antimony	-	**U**
MWQ-60	Dissolved Metals	Antimony	-	**U**
MWQ-7	Dissolved Metals	Antimony	-	**U**
MWQ-6	Dissolved Metals	Antimony	-	**U**
MWQ-60	Dissolved Metals	Mercury	-	**U**
MWQ-57	Dissolved Metals	Mercury	-	**U**
MWQ-6	Dissolved Metals	Mercury	-	**U**
MWQ-53	Dissolved Metals	Antimony	-	**U**
MWQ-3	Dissolved Metals	Antimony	-	**U**
MWQ-53	Dissolved Metals	Zinc	-	**U**
MWQ-3	Dissolved Metals	Zinc	-	**U**
MWL-9	Dissolved Metals	Antimony	0.22	**U**
MWQ-18	Dissolved Metals	Antimony	-	**U**
MWQ-19	Dissolved Metals	Antimony	0.37	**U**
MWL-9	Dissolved Metals	Chromium	0.65	**U**
MWQ-5	Dissolved Metals	Antimony	-	**U**
M114MW002	Dissolved Metals	Antimony	-	**U**
M114MW004	VOCs	n-Butylbenzene	-	**U**

Field ID	Parameter	Analyte	New RL	Qualification
M114MW001	Dissolved Metals	Silver	-	U
M114MW002	Dissolved Metals	Silver	-	U
M114MW004	Dissolved Metals	Silver	-	U
M114MW003	Dissolved Metals	Antimony	-	U
MAO1MW002	Dissolved Metals	Antimony	-	U
MAO1MW004	Dissolved Metals	Antimony	-	U
MAO1MW054	Dissolved Metals	Antimony	-	U
MAO1MW002	VOCs	n-Butylbenzene	-	U
M114MW003	Dissolved Metals	Silver	-	U
MAO1MW002	Dissolved Metals	Silver	-	U
MAO1MW054	Dissolved Metals	Silver	-	U
MAO1MW001	VOCs	1,2,4-Trichlorobenzene	-	U
MAO1MW001	VOCs	1,2,4-Trimethylbenzene	-	U
MAO1MW001	VOCs	1,3,5-Trimethylbenzene	-	U
MAO1MW001	VOCs	4-Chlorotoluene	-	U
MAO1MW001	Dissolved Metals	Antimony	-	U
MAO1MW003	Dissolved Metals	Antimony	-	U
MWQ-14	Dissolved Metals	Antimony	-	U
MAO1MW001	VOCs	Hexachlorobutadiene	-	U
MAO1MW001	VOCs	n-Butylbenzene	-	U
MAO1MW003	VOCs	n-Butylbenzene	-	U
MAO1MW001	VOCs	p-Isopropyltoluene	-	U
MAO1MW001	VOCs	sec-Butylbenzene	-	U
MAO1MW001	Dissolved Metals	Silver	-	U
MWQ-14	Dissolved Metals	Silver	-	U
MAO1MW001	VOCs	tert-Butylbenzene	-	U
MWL-4	Dissolved Metals	Antimony	0.23	U
MWL-5	Dissolved Metals	Antimony	-	U
MWL-6	Dissolved Metals	Antimony	-	U
MWL-7	Dissolved Metals	Antimony	-	U
MWL-6	Dissolved Metals	Chromium	-	U
MAO1MW002	VOCs	Toluene	-	U

4.3.2.5 Laboratory Duplicates

Laboratory duplicate samples are analyzed to assess the precision of a particular sample. Ten samples, identified in the table below, were duplicated by the laboratory and analyzed with their respective SDGs.

Laboratory Duplicate Samples / Analytical Parameters	
Original Sample ID	**Analytical Parameters**
MWQ-4	Dissolved metals
MAO1MW002	Dissolved metals
MWQ-6	Dissolved metals, TDS, nitrate-nitrite, phosphorus (total orthophosphate), alkalinity, hexavalent chromium, TOC

Laboratory Duplicate Samples / Analytical Parameters	
Original Sample ID	**Analytical Parameters**
MWQ-2	Dissolved metals, TDS, nitrate-nitrite, hexavalent chromium
MWQ-20	Dissolved metals
MAO1MW001	Dissolved metals
MWQ-14	Mercury
M114MW002	Dissolved metals
MWQ-5	Mercury
MAO2MW001D	Mercury

All Laboratory Duplicate relative percent difference (RPDs) were within evaluation criteria with the exception of those listed in the following table.

Field ID	Parameter	Analyte	RPD	Criteria	Qualification
MWQ-6	Dissolved metals	Copper	**24**	20%	**J**
MAO01MW002	Dissolved metals	Arsenic	**69**	20%	**J**
MAO1MW002	Dissolved metals	Chromium	**41**	20%	**J**
MAO1MW002	Dissolved metals	Selenium	**64**	20%	**J**
MWQ-4	Dissolved metals	Copper	**21**	20%	**J**

4.3.2.6 Surrogate Compounds

The VOCs, SVOCs, organochlorine pesticides, and explosives analytical methods require the addition of surrogate compounds to all samples, blanks, QC analyses, and calibration standards. Surrogates are compounds that are unlikely to be found in the environment (often deuterated, fluorinated, or brominated) but show analytical performance similar to that shown by target analytes. The recoveries of surrogate compounds are used to evaluate the accuracy of the analytical system on an analysis-specific basis.

The following surrogates were spiked into each sample during VOC analysis (with percent recovery control limits): dibromofluoromethane (85 to 115 percent), 1,2-dichloroethane-d_4 (70 to 120 percent), 4-bromofluorobenzene (75 to 120 percent), and toluene-d_8 (85 to 120 percent). Surrogate recoveries for all VOC samples were within evaluation criteria with the exception of 1,2-dichloroethane-d_4 (125 percent) in sample M114MW001. The compounds chloroethane, toluene and vinyl chloride were detected and qualified estimated "**J**" in sample M114MW001.

The following surrogates were spiked into each sample during SVOC analysis (with percent recovery control limits): 2,4,6-Tribromophenol (40 to 125 percent), 2-Fluorobiphenyl (50 to 110 percent), 2-Fluorophenol (20 to 110 percent), nitrobenzene-d_5 (40 to 110 percent), phenol (10 to 115 percent), and terphenyl-d_{14} (50 to 135 percent). Surrogate recoveries for all SVOC samples were within evaluation criteria.

The following surrogates were spiked into each sample during organochlorine pesticides analysis (with percent recovery control limits): decachlorobiphenyl (30 to 135 percent) and TCMX (25 to 140 percent). Surrogate recoveries for all organochlorine pesticides samples were within evaluation criteria.

Surrogate (1,2-dinitrobenzene) recoveries were within evaluation criteria (70 to 130 percent) for all explosives samples. No qualification of data was required.

4.3.2.7 Laboratory Control Samples

The LCS and LCS Duplicate (LCSD) recovery limits were established to assess the accuracy of the analytical method and demonstrate laboratory performance on an analytical batch-specific basis. All LCS recoveries were within the evaluation criteria for all analyses the exception of those listed in the table below.

LCS ID	Analysis	LCS Compound	LCS/LCSD Recovery	Criteria
A090128-LCS	Wet chemistry	Ammonia	**89.2**	90-110

The following table lists the samples qualified due to LCS recovery outside evaluation criteria.

Field ID	Analyte	Qualification	Associated LCS Sample
M114MW001	Ammonia	**J**	A090128-LCS
M114MW002	Ammonia	**J**	A090128-LCS
M114MW004	Ammonia	**J**	A090128-LCS

4.3.2.8 Field Duplicate Analysis

Field duplicate sample pairs were collected to assess both field and laboratory precision. Eight field duplicate samples, identified in the table below, were collected and submitted to the laboratory for analysis.

Field Duplicate Sample Pairs / Analytical Parameters		
Original Sample ID	**Duplicate Sample ID**	**Parameters Duplicated**
MAO1MW004	MAO1MW054	VOCs, SVOCs, organochlorine pesticides, explosives, metals and wet chemistry parameters
MWQ-3	MWQ-53	Dissolved metals and wet chemistry parameters
MWQ-7	MWQ-57	Dissolved metals and wet chemistry parameters
MWQ-10	MWQ-60	Dissolved metals and wet chemistry parameters

Field duplicate sample pair results were within evaluation criteria (25 percent RPD or within ±2X the reporting limit [RL] if either the sample or duplicate are less than 5X the RL) for VOCs, SVOCs, organochlorine pesticides, and explosives duplicate sample pairs. Some dissolved metals and wet chemistry parameters did not met the field duplicate criteria. Analytical results for the field duplicate sample pairs are presented in **Appendix D.** Analytical results that did not meet field duplicate criteria are listed and qualified in the table below.

SDG	Field ID	Field Duplicate	Parameter	Analyte	RPD	Qualification
57934	MWQ-10	MWQ-60	Dissolved Metals	Cadmium	> 2X RL	**J**
57934	MWQ-7	MWQ-57	Dissolved Metals	Cadmium	66.7	**J**

SDG	Field ID	Field Duplicate	Parameter	Analyte	RPD	Qualification
57934	MWQ-7	MWQ-57	Dissolved Metals	Copper	> 2X RL	**J**
57934	MWQ-10	MWQ-60	Dissolved Metals	Lead	107	**J**
57934	MWQ-7	MWQ-57	Dissolved Metals	Lead	> 2X RL	**J**
57934	MWQ-7	MWQ-57	Dissolved Metals	Manganese	> 2X RL	**J**
57934	MWQ-10	MWQ-60	Wet Chemistry	TOC	> 2X RL	**J**
57934	MWQ-7	MWQ-57	Wet Chemistry	TOC	26	**J**
57939	MWQ-3	MWQ-53	Dissolved Metals	Copper	44	**J**
58006	MAO1MW004	MAO1MW054	Dissolved Metals	Cadmium	> 2X RL	**J**
58006	MAO1MW004	MAO1MW054	Dissolved Metals	Molybdenum	57	**J**
58006	MAO1MW004	MAO1MW054	Dissolved Metals	Zinc	> 2X RL	**J**

4.3.2.9 Field Quality Assurance Split Samples

A field QA split sample is a field duplicate sample that is submitted to a secondary laboratory for analysis and is used to assess laboratory measurement bias. QA split samples were collected and submitted to EMAX Laboratories, Inc. in Torrance, California for requested analyses. Three split samples, identified in the table below, were collected and submitted to EMAX Laboratories, Inc. for analysis.

QA Split Sample / Analytical Parameters		
Original Sample ID	**QA Split Sample ID**	**QA Split Parameters**
MWQ-7	MWQ-7	Dissolved metals and wet chemistry parameters
MWQ-10	MWQ-10	Dissolved metals and wet chemistry parameters
MAO1MW003	MAO1MW003	VOCs, SVOCs, organochlorine pesticides, explosives, metals, perchlorate, and wet chemistry parameters

Sample results were compared to determine their agreement using the comparison criteria for split samples (USACE 1996). Upon comparison most of the data agreed; however, some sample results disagreed and had a difference of greater than two times (2X) and three times (3X). The QA split comparison tables are presented in **Appendix D**.

4.3.2.10 Matrix Spike/Matrix Spike Duplicate Analysis

MS/MSD analyses were performed to assess laboratory accuracy, precision and the effects of matrix interferences on sample preparation and analyses. Three samples, identified in the table below, were collected and submitted to the laboratory to be spiked and analyzed with their respective SDGs. In addition, five samples were spiked by the laboratory and analyzed.

Matrix Spike Samples / Analytical Parameters	
Original Sample ID	**Analytical Parameters**
MWQ-6	Dissolved metals, TDS, Hexavalent Chromium, Alkalinity, TOC, Phosphorus (total orthophosphate), Ammonia, Nitrate-Nitrite
MWQ-2	Dissolved metals, TDS, Hexavalent Chromium, Alkalinity, TOC, Phosphorus (total orthophosphate), Ammonia, Nitrate-Nitrite
MAO1MW002	VOCs, SVOCs, Organochlorine pesticides, Explosives, Dissolved metals, Hexavalent Chromium, Perchlorate, Bromide, Chloride, Fluoride, Sulfate, Sulfide, TOC, Phosphorus (total orthophosphate), Ammonia
MAO2MW001D	Mercury
MWQ-20	Dissolved Metals
MAO1MW001	Dissolved Metals
MWQ-5	Mercury
MWQ-4	Dissolved Metals

MS/MSD recoveries and RPDs that were outside control limits are listed in the following table.

MS/MSD ID	Analysis	Analyte	MS/MSD Recovery (%)	RPD	Criteria
MWQ-6	Dissolved Metals	Antimony	**123**	N/A	80-120
MWQ-6	Dissolved Metals	Arsenic	**129**	N/A	80-120
MWQ-6	Dissolved Metals	Barium	**121**	N/A	80-120
MWQ-6	Dissolved Metals	Cadmium	**122**	N/A	80-120
MWQ-6	Wet Chemistry	Total Organic Carbon	**62**	N/A	90-110
MWQ-2	Dissolved Metals	Antimony	**144**	N/A	80-120
MWQ-2	Dissolved Metals	Arsenic	**134**	N/A	80-120
MWQ-2	Dissolved Metals	Barium	**123**	N/A	80-120
MWQ-2	Dissolved Metals	Cadmium	**122**	N/A	80-120
MWQ-2	Dissolved Metals	Selenium	**131**	N/A	80-120
MWQ-2	Dissolved Metals	Silver	**125**	N/A	80-120
MWQ-2	Dissolved Metals	Vanadium	**123**	N/A	80-120
MWQ-2	Wet Chemistry	Phosphorus (total orthophosphate)	**113/114**	1.1	90-110
MAO1MW002	VOCs	2,2-Dichloropropane	**56.2/51.7**	8.3	70-135
MAO1MW002	VOCs	Acetone	138/**151**	9.0	40-140
MAO1MW002	Wet Chemistry	Perchlorate	**68/78**	3.7	80-120
MAO1MW002	Wet Chemistry	Ammonia	**89**	N/A	90-110
MWQ-20	Dissolved Metals	Potassium	**70**	N/A	80-120
MAO1MW001	Dissolved Metals	Calcium	**65.6**	N/A	80-120
MAO1MW001	Dissolved Metals	Magnesium	**72.4**	N/A	80-120

The following table lists the samples qualified due to MS/MSD recoveries/RPDs outside control limits. The MS/MSD recoveries for inorganic compounds with sample concentrations greater than four times (4X) the matrix spike concentration did not require evaluation or qualification. Sample results that were nondetect and associated with MS/MSD recoveries above evaluation criteria did not require qualification. The data review guidelines established in the QAPP state that organic data will not be qualified based on MS/MSD data alone and LCS recoveries were within evaluation criteria, therefore no qualification of data was required.

Field ID	Analysis	Analyte	Qualification
MWQ-6	Dissolved Metals	Arsenic	**J**
MWQ-6	Dissolved Metals	Barium	**J**
MWQ-6	Dissolved Metals	Cadmium	**J**
MWQ-6	Wet Chemistry	Total Organic Carbon	**J**
MWQ-2	Dissolved Metals	Antimony	**J**
MWQ-2	Dissolved Metals	Arsenic	**J**
MWQ-2	Dissolved Metals	Barium	**J**
MWQ-2	Dissolved Metals	Cadmium	**J**
MWQ-2	Dissolved Metals	Selenium	**J**
MAO1MW002	Wet Chemistry	Perchlorate	**J**
MAO1MW002	Wet Chemistry	Ammonia	**J**
MWQ-20	Dissolved Metals	Potassium	**J**
MAO1MW001	Dissolved Metals	Calcium	**J**
MAO1MW001	Dissolved Metals	Magnesium	**J**

4.3.2.11 Precision, Accuracy, Representativeness, Comparability, and Completeness Parameters

Precision and Accuracy

The agreement between duplicate analyses within control limits indicates satisfactory precision in a measurement system. The recovery of a predetermined amount of a spike within control limits indicates satisfactory accuracy with respect to the method on the individual sample and general matrix. For VOCs, SVOCs, explosives, organochlorine pesticides, metals, and wet chemistry parameters, 99 percent of the indicators reviewed for precision (LCS/LCSD, MS/MSD, laboratory duplicate, and field duplicate RPDs) were within evaluation criteria. For VOCs, SVOCs, explosives, organochlorine pesticides, metals, and wet chemistry parameters, 99 percent of the indicators reviewed for accuracy (LCS/LCSD, MS/MSD, and surrogate spike recoveries) were within evaluation criteria.

The overall accuracy and precision of the Groundwater Quality Well Network and AOCs 1 and 2 groundwater sample data reported for the baseline sampling event was concluded to be satisfactory for VOCs, SVOCs, explosives, organochlorine pesticides, metals, and wet chemistry parameters.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represent the characteristics of a population. Representativeness is a qualitative parameter that is addressed by the proper design of the sampling program, such that the sampling locations selected will provide representative data for decisions at Melrose AFR. Representativeness was assessed by evaluating whether detections of target analytes were significantly above corresponding blank contamination levels. Analyte detections that were qualified **U** due to blank contamination were considered not representative of site contamination. Three field duplicate sample pairs were collected at Melrose AFR to assess the effect of sample collection on results. For VOCs, SVOCs, explosives, organochlorine pesticides, metals, and wet chemistry parameters analyses, 97 percent of the analytes in field duplicate sample pairs met RPD evaluation criteria, and 99 percent of sample analyses were unaffected by method and trip blank contamination; therefore, it was concluded that overall representativeness was satisfactory.

Comparability

Comparability expresses the confidence with which one data set can be compared to another. In accordance with the QAPP, data are comparable when collection techniques, measurement methods, and reporting procedures are equivalent for the samples within a sample set. Throughout this investigation, appropriate procedures for sampling, analysis, and shipping were implemented as specified in the Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009). Within each data set (Groundwater Quality Well Network, SWMUs, and AOCs), it was concluded that results were comparable to one another.

Completeness

Completeness is defined as the percentage of the total number of analytical results requested which are judged to be usable, including values with estimated qualifiers (**J**) and estimated nondetect qualifiers (**UJ**), in accordance with the Final Work Plan for Initial Baseline Groundwater Monitoring at Melrose AFR (URS 2009). Completeness was 99.9 percent for the VOCs, SVOCs, explosives, organochlorine pesticides, metals, and wet chemistry parameters.

4.4 FIELD WATER QUALITY PARAMETERS

Field water quality parameter measurements were determined at the time of sample collection in January through February 2009. Field water quality parameter measurements included ORP, DO, pH, conductivity, temperature, and turbidity. All field results were recorded on water Sample Collection Field Sheets (included in **Appendix A**). SWMU/AOC monitoring well field water quality parameter measurements are presented in **Table 4-11**. Groundwater Quality Well Network monitoring well field water quality parameter measurements are presented in **Table 4-12**. **Tables 4-13** and **4-14** summarize SWMU/AOC and Groundwater Quality Well Network monitoring well field water quality parameter concentration ranges, respectively.

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TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW001				M114MW002			
DATE COLLECTED			January 26, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)										
Chloroethane	4.00E-01 J	1 / 4	4.00E-01	2.10E-01	1.00E+00	J	<	2.10E-01	1.00E+00	U
Toluene	3.00E-01 J	2 / 4	2.00E-01	1.70E-01	1.00E+00	J	<	1.70E-01	1.00E+00	U
Vinyl Chloride	7.00E-01 J	1 / 4	7.00E-01	2.30E-01	1.00E+00	J	<	2.30E-01	1.00E+00	U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)										
All target analytes were nondetect										
ORGANOCHLORINE PESTICIDES (µg/L)										
All target analytes were nondetect										
EXPLOSIVES (µg/L)										
All target analytes were nondetect										
DISSOLVED METALS by 6010B (µg/L)										
Calcium	4.22E+05	4 / 4	3.90E+05	2.72E+03	1.00E+04		3.03E+05	2.72E+03	1.00E+04	
Magnesium	3.55E+05	4 / 4	3.36E+05	1.29E+03	5.00E+03		2.90E+05	1.29E+03	5.00E+03	
Potassium	1.68E+04	4 / 4	1.68E+04	9.95E+01	1.00E+03		1.54E+04	9.95E+01	1.00E+03	
Sodium	3.27E+06	4 / 4	2.91E+06	1.11E+04	1.00E+05		2.61E+06	1.11E+04	1.00E+05	
DISSOLVED METALS by 6020A (µg/L)										
Antimony	6.50E-01	2 / 4	5.90E-01	1.00E-02	2.00E-01		<	1.00E-02	2.00E-01	U
Arsenic	6.50E+00	4 / 4	4.40E+00	9.00E-02	2.00E-01		5.10E+00	9.00E-02	2.00E-01	
Barium	1.75E+01	4 / 4	1.75E+01	4.00E-02	5.00E-01		1.43E+01	4.00E-02	5.00E-01	
Beryllium	5.40E-02 J	3 / 4	<	4.00E-02	2.00E-01	U	5.40E-02	4.00E-02	2.00E-01	J
Cadmium	5.60E+00	4 / 4	2.80E+00	2.00E-02	2.00E-01		5.30E+00	2.00E-02	2.00E-01	
Chromium	7.80E+00	4 / 4	3.00E+00	4.00E-02	5.00E-01		4.30E+00	4.00E-02	5.00E-01	
Chromium III	7.80E+00	4 / 4	3.00E+00	4.00E-02	5.00E-01		4.30E+00	4.00E-02	5.00E-01	
Cobalt	5.50E-01	4 / 4	5.00E-01	3.00E-02	5.00E-01		3.90E-01	3.00E-02	5.00E-01	J
Copper	6.30E+00	4 / 4	6.30E+00	1.30E-01	5.00E-01		5.90E+00	1.30E-01	5.00E-01	
Lead	1.10E-01	1 / 4	1.10E-01	1.10E-01	2.00E-01		<	1.10E-01	2.00E-01	U
Manganese	4.43E+01	4 / 4	1.88E+01	6.00E-02	5.00E-01		2.50E+00	6.00E-02	5.00E-01	
Mercury	1.10E-01 J	3 / 4	7.70E-02	6.00E-02	2.00E-01	J	1.10E-01	6.00E-02	2.00E-01	J
Molybdenum	1.58E+01	4 / 4	1.22E+01	7.00E-02	5.00E-01		1.58E+01	7.00E-02	5.00E-01	
Selenium	7.21E+01	4 / 4	5.81E+01	1.00E-01	1.00E+00		5.08E+01	1.00E-01	1.00E+00	
Vanadium	7.50E+00	4 / 4	3.10E+00	7.00E-02	5.00E-01		7.50E+00	7.00E-02	5.00E-01	
Zinc	8.85E+02	4 / 4	4.50E+02	2.30E+00	5.00E+01		5.33E+02	2.30E+00	5.00E+01	

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW001				M114MW002			
DATE COLLECTED			January 26, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)										
Bromide	1.78E+04	4 / 4	1.78E+04	1.25E+03	1.25E+04		1.77E+04	1.25E+03	1.25E+04	
Chloride	4.05E+06	4 / 4	3.87E+06	2.00E+04	2.50E+05		3.34E+06	2.00E+04	2.50E+05	
Fluoride	2.18E+03 J	1 / 4	<	2.00E+03	2.50E+04	U	2.18E+03	2.00E+03	2.50E+04	J
Perchlorate	4.40E+00	4 / 4	2.90E+00	2.00E-01	6.00E-01		2.80E+00	2.00E-01	6.00E-01	
Sulfate	2.06E+06	4 / 4	2.01E+06	2.25E+04	2.50E+05		1.82E+06	2.25E+04	2.50E+05	
Sulfide	9.68E+02 J	1 / 4	<	6.00E+02	2.00E+03	U	9.68E+02	6.00E+02	2.00E+03	J

Notes:
< = Less than Reporting Limit
µg/L = microgram per Liter
ID = Identification
J = Estimated
MDL = Method Detection Limit
MW = Monitoring Well
Qual = Qualifier
RL = Reporting Limit
SWMU = Solid Waste Management Unit
U = Nondetect

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW003				M114MW004			
DATE COLLECTED			January 27, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)										
Chloroethane	4.00E-01 J	1 / 4	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U
Toluene	3.00E-01 J	2 / 4	3.00E-01	1.70E-01	1.00E+00	J	<	1.70E-01	1.00E+00	U
Vinyl Chloride	7.00E-01 J	1 / 4	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)										
All target analytes were nondetect										
ORGANOCHLORINE PESTICIDES (µg/L)										
All target analytes were nondetect										
EXPLOSIVES (µg/L)										
All target analytes were nondetect										
DISSOLVED METALS by 6010B (µg/L)										
Calcium	4.22E+05	4 / 4	4.22E+05	2.72E+03	1.00E+04		3.73E+05	2.72E+03	1.00E+04	
Magnesium	3.55E+05	4 / 4	3.55E+05	1.29E+03	5.00E+03		3.20E+05	1.29E+03	5.00E+03	
Potassium	1.68E+04	4 / 4	1.66E+04	9.95E+01	1.00E+03		1.57E+04	9.95E+01	1.00E+03	
Sodium	3.27E+06	4 / 4	3.27E+06	1.11E+04	1.00E+05		2.78E+06	1.11E+04	1.00E+05	
DISSOLVED METALS by 6020A (µg/L)										
Antimony	6.50E-01	2 / 4	<	1.00E-02	2.00E-01	U	6.50E-01	1.00E-02	2.00E-01	
Arsenic	6.50E+00	4 / 4	6.50E+00	9.00E-02	2.00E-01		5.50E-01	9.00E-02	2.00E-01	
Barium	1.75E+01	4 / 4	1.53E+01	4.00E-02	5.00E-01		1.37E+01	4.00E-02	5.00E-01	
Beryllium	5.40E-02 J	3 / 4	5.10E-02	4.00E-02	2.00E-01	J	4.50E-02	4.00E-02	2.00E-01	J
Cadmium	5.60E+00	4 / 4	1.30E-01	2.00E-02	2.00E-01	J	5.60E+00	2.00E-02	2.00E-01	
Chromium	7.80E+00	4 / 4	3.60E+00	4.00E-02	5.00E-01		7.80E+00	4.00E-02	5.00E-01	
Chromium III	7.80E+00	4 / 4	3.60E+00	4.00E-02	5.00E-01		7.80E+00	4.00E-02	5.00E-01	
Cobalt	5.50E-01	4 / 4	5.50E-01	3.00E-02	5.00E-01		5.20E-01	3.00E-02	5.00E-01	
Copper	6.30E+00	4 / 4	5.70E+00	1.30E-01	5.00E-01		5.80E+00	1.30E-01	5.00E-01	
Lead	1.10E-01	1 / 4	<	1.10E-01	2.00E-01	U	<	1.10E-01	2.00E-01	U
Manganese	4.43E+01	4 / 4	1.64E+01	6.00E-02	5.00E-01		4.43E+01	6.00E-02	5.00E-01	
Mercury	1.10E-01 J	3 / 4	<	6.00E-02	2.00E-01	U	8.50E-02	6.00E-02	2.00E-01	J
Molybdenum	1.58E+01	4 / 4	8.20E+00	7.00E-02	5.00E-01		1.00E+01	7.00E-02	5.00E-01	
Selenium	7.21E+01	4 / 4	7.21E+01	1.00E-01	1.00E+00		3.35E+01	1.00E-01	1.00E+00	
Vanadium	7.50E+00	4 / 4	6.70E+00	7.00E-02	5.00E-01		2.90E+00	7.00E-02	5.00E-01	
Zinc	8.85E+02	4 / 4	4.21E+02	2.30E+00	5.00E+01		8.85E+02	2.30E+00	5.00E+01	

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW003				M114MW004			
DATE COLLECTED			January 27, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)										
Bromide	1.78E+04	4 / 4	1.40E+04	1.25E+03	1.25E+04		1.78E+04	1.25E+03	1.25E+04	
Chloride	4.05E+06	4 / 4	4.05E+06	2.00E+04	1.00E+05		3.96E+06	2.00E+04	2.50E+05	
Fluoride	2.18E+03 J	1 / 4	<	2.00E+03	2.50E+04	U	<	2.00E+03	2.50E+04	U
Perchlorate	4.40E+00	4 / 4	4.40E+00	2.00E-01	6.00E-01		2.00E+00	2.00E-01	6.00E-01	
Sulfate	2.06E+06	4 / 4	2.06E+06	2.25E+04	1.00E+05		1.98E+06	2.25E+04	2.50E+05	
Sulfide	9.68E+02 J	1 / 4	<	6.00E+02	2.00E+03	U	<	6.00E+02	2.00E+03	U

Notes:
< = Less than Reporting Limit
µg/L = microgram per Liter
ID = Identification
J = Estimated
MDL = Method Detection Limit
MW = Monitoring Well
Qual = Qualifier
RL = Reporting Limit
SWMU = Solid Waste Management Unit
U = Nondetect

TABLE 4-2
COMPARISON OF SWMU 114 MAXIMUM GROUNDWATER CONCENTRATIONS TO GROUNDWATER SCREENING LEVELS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Chemical	Maximum Detected Concentration (µg/L)	Qual	Groundwater Screening Level (µg/L)	Groundwater Screening Level Source	Exceeds Groundwater Screening Level?
VOLATILE ORGANIC COMPOUNDS (µg/L)					
Chloroethane	4.00E-01	J	2.10E+04	RSLs	NO
Toluene	3.00E-01	J	7.50E+02	WQCC	NO
Vinyl Chloride	7.00E-01	J	1.00E+00	WQCC	NO
DISSOLVED METALS by 6010B (µg/L)					
Calcium	4.22E+05		N/A	N/A	N/A
Magnesium	3.55E+05		N/A	N/A	N/A
Potassium	1.68E+04		N/A	N/A	N/A
Sodium	3.27E+06		N/A	N/A	N/A
DISSOLVED METALS by 6020A (µg/L)					
Antimony	6.50E-01		1.50E+01	RSLs	NO
Arsenic	6.50E+00		1.00E+02	WQCC	NO
Barium	1.75E+01		1.00E+03	WQCC	NO
Beryllium	5.40E-02	J	7.30E+01	RSLs	NO
Cadmium	5.60E+00		1.00E+01	WQCC	NO
Chromium	7.80E+00		5.00E+01	WQCC	NO
Chromium III	7.80E+00		5.00E+01	WQCC	NO
Cobalt	5.50E-01		5.00E+01	WQCC	NO
Copper	6.30E+00		1.00E+03	WQCC	NO
Lead	1.10E-01		5.00E+01	WQCC	NO
Manganese	4.43E+01		2.00E+02	WQCC	NO
Mercury	1.10E-01	J	2.00E+00	WQCC	NO
Molybdenum	1.58E+01		1.00E+03	WQCC	NO
Selenium	7.21E+01		5.00E+01	WQCC	YES
Vanadium	7.50E+00		1.80E+02	RSLs	NO
Zinc	8.85E+02		1.00E+04	WQCC	NO
WET CHEMISTRY PARAMETERS (µg/L)					
Bromide	1.78E+04		N/A	N/A	N/A
Chloride	4.05E+06		2.50E+02	WQCC	YES
Fluoride	2.18E+03	J	1.60E+00	WQCC	YES
Perchlorate	4.40E+00		2.60E+01	RSLs	NO
Sulfate	2.06E+06		6.00E+02	WQCC	YES
Sulfide	9.68E+02	J	N/A	N/A	N/A

Notes:
µg/L = microgram per Liter
J = Estimated
N/A = Not available
Qual = Qualifier
SWMU = Solid Waste Management Unit
RSLs = Tap Water Regional Screening Levels for Chemical Contaminants at Superfund Sites (USEPA 2008)
WQCC = Water Quality Control Commission. New Mexico Administrative Code (NMAC). Title 20 Environmental Protection, Chapter 6 Water Quality, Part 2 Ground and Surface Water Protection, Section 20.6.2.3103 Subsections A, B, & C

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TABLE 4-3
SUMMARY OF DETECTED COMPOUNDS AT SWMU 117
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M117MW002			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)						
All target analytes were nondetect						
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)						
All target analytes were nondetect						
PESTICIDES (ORGANOCHLORINE) (µg/L)						
All target analytes were nondetect						
EXPLOSIVES (µg/L)						
All target analytes were nondetect						
DISSOLVED METALS by 6010B (µg/L)						
Calcium	1.94E+05	1 / 1	1.94E+05	5.44E+02	2.00E+03	
Magnesium	1.56E+05	1 / 1	1.56E+05	2.58E+02	1.00E+03	
Potassium	3.62E+04	1 / 1	3.62E+04	1.99E+03	2.00E+04	
Sodium	7.81E+05	1 / 1	7.81E+05	2.22E+03	2.00E+04	
DISSOLVED METALS by 6020A (µg/L)						
Antimony	1.20E+00	1 / 1	1.20E+00	1.00E-02	2.00E-01	
Arsenic	1.63E+01	1 / 1	1.63E+01	9.00E-02	2.00E-01	
Barium	6.04E+01	1 / 1	6.04E+01	4.00E-02	5.00E-01	
Cadmium	4.60E-01	1 / 1	4.60E-01	2.00E-02	2.00E-01	
Chromium	4.31E+01	1 / 1	4.31E+01	4.00E-02	5.00E-01	
Cobalt	9.80E-01	1 / 1	9.80E-01	3.00E-02	5.00E-01	
Copper	1.59E+01	1 / 1	1.59E+01	1.30E-01	5.00E-01	
Lead	2.10E-01	1 / 1	2.10E-01	1.10E-01	2.00E-01	
Manganese	1.48E+01	1 / 1	1.48E+01	6.00E-02	5.00E-01	
Mercury	5.20E-01	1 / 1	5.20E-01	6.00E-02	2.00E-01	
Molybdenum	2.51E+01	1 / 1	2.51E+01	7.00E-02	5.00E-01	
Selenium	9.79E+01	1 / 1	9.79E+01	1.00E-01	1.00E+00	
Vanadium	1.26E+02	1 / 1	1.26E+02	7.00E-02	5.00E-01	
Zinc	2.39E+03	1 / 1	2.39E+03	1.20E+01	2.50E+02	
WET CHEMISTRY PARAMETERS (µg/L)						
Bromide	7.34E+03	1 / 1	7.34E+03	2.50E+02	2.50E+03	
Chloride	6.65E+05	1 / 1	6.65E+05	4.00E+03	5.00E+04	
Fluoride	2.60E+03 J	1 / 1	2.60E+03	4.00E+02	5.00E+03	J
Perchlorate	1.50E+01	1 / 1	1.50E+01	2.00E+00	6.00E+00	
Sulfate	1.67E+06	1 / 1	1.67E+06	4.50E+03	5.00E+04	
Total Organic Carbon	5.50E+00	1 / 1	5.50E+00	7.00E+01	5.00E+02	

Notes:
µg/L = microgram per Liter
ID = Identification
J = Estimated
MDL = Method Detection Limit
MW = Monitoring Well
Qual = Qualifier
RL = Reporting Limit
SWMU = Solid Waste Management Unit

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TABLE 4-4
COMPARISON OF SWMU 117 MAXIMUM GROUNDWATER CONCENTRATIONS TO GROUNDWATER SCREENING LEVELS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Chemical	Maximum Detected Concentration (µg/L)	Qual	Groundwater Screening Level (µg/L)	Groundwater Screening Level Source	Exceeds Groundwater Screening Level?
DISSOLVED METALS by 6010B (µg/L)					
Calcium	1.94E+05		N/A	N/A	N/A
Magnesium	1.56E+05		N/A	N/A	N/A
Potassium	3.62E+04		N/A	N/A	N/A
Sodium	7.81E+05		N/A	N/A	N/A
DISSOLVED METALS by 6020A (µg/L)					
Antimony	1.20E+00		1.50E+01	RSLs	NO
Arsenic	1.63E+01		1.00E+02	WQCC	NO
Barium	6.04E+01		1.00E+03	WQCC	NO
Cadmium	4.60E-01		1.00E+01	WQCC	NO
Chromium	4.31E+01		5.00E+01	WQCC	NO
Cobalt	9.80E-01		5.00E+01	WQCC	NO
Copper	1.59E+01		1.00E+03	WQCC	NO
Lead	2.10E-01		5.00E+01	WQCC	NO
Manganese	1.48E+01		2.00E+02	WQCC	NO
Mercury	5.20E-01		2.00E+00	WQCC	NO
Molybdenum	2.51E+01		1.00E+03	WQCC	NO
Selenium	9.79E+01		5.00E+01	WQCC	YES
Vanadium	1.26E+02		1.80E+02	RSLs	NO
Zinc	2.39E+03		1.00E+04	WQCC	NO
WET CHEMISTRY PARAMETERS (µg/L)					
Bromide	7.34E+03		N/A	N/A	N/A
Chloride	6.65E+05		2.50E+02	WQCC	YES
Fluoride	2.60E+03	J	1.60E+00	WQCC	YES
Perchlorate	1.50E+01		2.60E+01	RSLs	NO
Sulfate	1.67E+06		6.00E+02	WQCC	YES
Total Organic Carbon	5.50E+00		N/A	N/A	N/A

Notes:
µg/L = microgram per Liter
J = Estimated
Qual = Qualifier
N/A = Not available
SWMU = Solid Waste Management Unit
RSLs = Tap Water Regional Screening Levels for Chemical Contaminants at Superfund Sites (USEPA 2008)
WQCC = Water Quality Control Commission. New Mexico Administrative Code (NMAC). Title 20 Environmental Protection, Chapter 6 Water Quality, Part 2 Ground and Surface Water Protection, Section 20.6.2.3103 Subsections A, B, & C

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TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MA01MW001				MA01MW002			
DATE COLLECTED			January 29, 2009				January 28, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)										
All target analytes were nondetect										
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)										
All target analytes were nondetect										
PESTICIDES (ORGANOCHLORINE) (µg/L)										
All target analytes were nondetect										
EXPLOSIVES (µg/L)										
All target analytes were nondetect										
DISSOLVED METALS by 6010B (µg/L)										
Calcium	6.12E+04	4 / 4	5.35E+04	2.72E+01	1.00E+02	J	4.40E+04	2.72E+01	1.00E+02	
Magnesium	6.33E+04	4 / 4	5.31E+04	1.29E+01	5.00E+01	J	4.49E+04	1.29E+01	5.00E+01	
Potassium	7.79E+03	4 / 4	7.23E+03	9.95E+01	1.00E+03		7.53E+03	9.95E+01	1.00E+03	
Sodium	7.32E+05	4 / 4	7.32E+05	2.78E+03	2.50E+04		6.45E+05	2.78E+03	2.50E+04	
DISSOLVED METALS by 6020A (µg/L)										
Antimony	1.60E-01 J	1 / 4	1.60E-01	1.00E-02	2.00E-01	J	<	1.00E-02	2.20E-01	U
Arsenic	2.60E+00	4 / 4	9.60E-01	9.00E-02	2.00E-01		1.60E+00	9.00E-02	2.00E-01	J
Barium	2.32E+01	4 / 4	1.69E+01	4.00E-02	5.00E-01		1.90E+01	4.00E-02	5.00E-01	
Beryllium	1.40E-01 J	2 / 4	1.40E-01	4.00E-02	2.00E-01	J	1.10E-01	4.00E-02	2.00E-01	J
Cadmium	3.20E+00	4 / 4	9.20E-01	2.00E-02	2.00E-01		3.20E+00	2.00E-02	2.00E-01	
Chromium	3.50E+00 J	4 / 4	2.20E+00	4.00E-02	5.00E-01		3.50E+00	4.00E-02	5.00E-01	J
Chromium III	3.50E+00	4 / 4	2.20E+00	4.00E-02	5.00E-01		3.50E+00	4.00E-02	5.00E-01	
Cobalt	4.80E-01 J	4 / 4	4.80E-01	3.00E-02	5.00E-01	J	1.80E-01	3.00E-02	5.00E-01	J
Copper	2.70E+00	4 / 4	2.70E+00	1.30E-01	5.00E-01		2.30E+00	1.30E-01	5.00E-01	
Lead	3.20E-01	4 / 4	3.20E-01	1.10E-01	2.00E-01		1.10E-01	1.10E-01	2.00E-01	
Manganese	5.10E+00	4 / 4	5.10E+00	6.00E-02	5.00E-01		8.40E-01	6.00E-02	5.00E-01	
Mercury	1.60E-01 J	2 / 4	<	6.00E-02	2.00E-01	U	9.80E-02	6.00E-02	2.00E-01	J
Molybdenum	1.14E+01	4 / 4	5.70E+00	7.00E-02	5.00E-01		1.14E+01	7.00E-02	5.00E-01	
Selenium	1.39E+01	4 / 4	6.30E+00	1.00E-01	1.00E+00		9.30E+00	1.00E-01	1.00E+00	J
Vanadium	1.91E+01	4 / 4	8.70E+00	7.00E-02	5.00E-01		1.34E+01	7.00E-02	5.00E-01	
Zinc	8.26E+02	4 / 4	4.15E+02	2.30E+00	5.00E+01		8.26E+02	2.30E+00	5.00E+01	

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MA01MW001				MA01MW002			
DATE COLLECTED			January 29, 2009				January 28, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)										
Ammonia	4.54E+02 J	1 / 4	<	1.22E+02	5.00E+02	U	4.54E+02	1.22E+02	5.00E+02	J
Bromide	2.67E+03	4 / 4	2.67E+03	1.00E+02	1.00E+03		2.25E+03	1.00E+02	1.00E+03	
Chloride	5.71E+05	4 / 4	5.71E+05	2.00E+03	2.50E+04		4.49E+05	2.00E+03	2.50E+04	
Fluoride	2.49E+03	4 / 4	2.24E+03	1.60E+02	2.00E+03		2.49E+03	1.60E+02	2.00E+03	
Perchlorate	4.20E+00	4 / 4	3.00E-01	2.00E-01	6.00E-01	J	2.00E+00	2.00E-01	6.00E-01	J
Sulfate	6.63E+05	4 / 4	6.63E+05	2.25E+03	2.50E+04		5.34E+05	2.25E+03	2.50E+04	
Total Organic Carbon	7.00E+02 J	3 / 4	<	7.00E+01	5.00E+02	U	7.00E+02	7.00E+01	5.00E+02	

Notes:
< = Less than Reporting Limit
µg/L = microgram per Liter
ID = Identification
J = Estimated
MDL = Method Detection Limit
MW = Monitoring Well
Qual = Qualifier
RL = Reporting Limit
U = Nondetect

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MA01MW003				MA01MW004			
DATE COLLECTED			January 29, 2009				January 27, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)										
All target analytes were nondetect										
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)										
All target analytes were nondetect										
PESTICIDES (ORGANOCHLORINE) (µg/L)										
All target analytes were nondetect										
EXPLOSIVES (µg/L)										
All target analytes were nondetect										
DISSOLVED METALS by 6010B (µg/L)										
Calcium	6.12E+04	4 / 4	6.12E+04	2.72E+01	1.00E+02		4.44E+04	2.72E+01	1.00E+02	
Magnesium	6.33E+04	4 / 4	6.33E+04	1.29E+01	5.00E+01		4.28E+04	1.29E+01	5.00E+01	
Potassium	7.79E+03	4 / 4	7.79E+03	9.95E+01	1.00E+03		6.41E+03	9.95E+01	1.00E+03	
Sodium	7.32E+05	4 / 4	6.55E+05	2.78E+03	2.50E+04		4.01E+05	2.78E+03	2.00E+04	
DISSOLVED METALS by 6020A (µg/L)										
Antimony	1.60E-01 J	1 / 4	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U
Arsenic	2.60E+00	4 / 4	2.50E+00	9.00E-02	2.00E-01		2.60E+00	9.00E-02	2.00E-01	
Barium	2.32E+01	4 / 4	1.63E+01	4.00E-02	5.00E-01		2.32E+01	4.00E-02	5.00E-01	
Beryllium	1.40E-01 J	2 / 4	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U
Cadmium	3.20E+00	4 / 4	1.60E-01	2.00E-02	2.00E-01	J	1.40E+00	2.00E-02	2.00E-01	J
Chromium	3.50E+00 J	4 / 4	1.90E+00	4.00E-02	5.00E-01		2.20E+00	4.00E-02	5.00E-01	
Chromium III	3.50E+00	4 / 4	1.90E+00	4.00E-02	5.00E-01		2.20E+00	4.00E-02	5.00E-01	
Cobalt	4.80E-01 J	4 / 4	7.70E-02	3.00E-02	5.00E-01	J	1.20E-01	3.00E-02	5.00E-01	J
Copper	2.70E+00	4 / 4	2.20E+00	1.30E-01	5.00E-01		1.90E+00	1.30E-01	5.00E-01	
Lead	3.20E-01	4 / 4	1.50E-01	1.10E-01	2.00E-01	J	1.30E-01	1.10E-01	2.00E-01	J
Manganese	5.10E+00	4 / 4	6.70E-01	6.00E-02	5.00E-01		1.20E+00	6.00E-02	5.00E-01	
Mercury	1.60E-01 J	2 / 4	<	6.00E-02	2.00E-01	U	1.60E-01	6.00E-02	2.00E-01	J
Molybdenum	1.14E+01	4 / 4	4.00E+00	7.00E-02	5.00E-01		6.00E+00	7.00E-02	5.00E-01	J
Selenium	1.39E+01	4 / 4	1.30E+01	1.00E-01	1.00E+00		1.39E+01	1.00E-01	1.00E+00	
Vanadium	1.91E+01	4 / 4	1.15E+01	7.00E-02	5.00E-01		1.91E+01	7.00E-02	5.00E-01	
Zinc	8.26E+02	4 / 4	4.47E+02	2.30E+00	5.00E+01		2.57E+02	2.30E+00	5.00E+01	J

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MA01MW003				MA01MW004			
DATE COLLECTED			January 29, 2009				January 27, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)										
Ammonia	4.54E+02 J	1 / 4	<	1.22E+02	5.00E+02	U	<	1.22E+02	5.00E+02	U
Bromide	2.67E+03	4 / 4	2.29E+03	1.00E+02	1.00E+03		1.63E+03	1.00E+02	5.00E+02	
Chloride	5.71E+05	4 / 4	4.80E+05	2.00E+03	2.50E+04		2.67E+05	2.00E+03	1.00E+04	
Fluoride	2.49E+03	4 / 4	2.18E+03	1.60E+02	2.00E+03		2.22E+03	1.60E+02	1.00E+03	
Perchlorate	4.20E+00	4 / 4	4.00E-01	2.00E-01	6.00E-01	J	4.20E+00	2.00E-01	6.00E-01	
Sulfate	6.63E+05	4 / 4	5.52E+05	2.25E+03	2.50E+04		3.51E+05	2.25E+03	1.00E+04	
Total Organic Carbon	7.00E+02 J	3 / 4	7.00E+02	7.00E+01	5.00E+02		7.00E+02	7.00E+01	5.00E+02	J

Notes:
< = Less than Reporting Limit
µg/L = microgram per Liter
ID = Identification
J = Estimated
MDL = Method Detection Limit
MW = Monitoring Well
Qual = Qualifier
RL = Reporting Limit
U = Nondetect

TABLE 4-6
COMPARISON OF AOC 1 MAXIMUM GROUNDWATER CONCENTRATIONS TO GROUNDWATER SCREENING LEVELS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Chemical	Maximum Detected Concentration (µg/L)	Qual	Groundwater Screening Level (µg/L)	Groundwater Screening Level Source	Exceeds Groundwater Screening Level?
DISSOLVED METALS by 6010B (µg/L)					
Calcium	6.12E+04		N/A	N/A	N/A
Magnesium	6.33E+04		N/A	N/A	N/A
Potassium	7.79E+03		N/A	N/A	N/A
Sodium	7.32E+05		N/A	N/A	N/A
DISSOLVED METALS by 6020A (µg/L)					
Antimony	1.60E-01	J	1.50E+01	RSLs	NO
Arsenic	2.60E+00		1.00E+02	WQCC	NO
Barium	2.32E+01		1.00E+03	WQCC	NO
Beryllium	1.40E-01	J	7.30E+01	RSLs	NO
Cadmium	3.20E+00		1.00E+01	WQCC	NO
Chromium	3.50E+00	J	5.00E+01	WQCC	NO
Chromium III	3.50E+00		5.00E+01	WQCC	NO
Cobalt	4.80E-01	J	5.00E+01	WQCC	NO
Copper	2.70E+00		1.00E+03	WQCC	NO
Lead	3.20E-01		5.00E+01	WQCC	NO
Manganese	5.10E+00		2.00E+02	WQCC	NO
Mercury	1.60E-01	J	2.00E+00	WQCC	NO
Molybdenum	1.14E+01		1.00E+03	WQCC	NO
Selenium	1.39E+01		5.00E+01	WQCC	NO
Vanadium	1.91E+01		1.80E+02	RSLs	NO
Zinc	8.26E+02		1.00E+04	WQCC	NO
WET CHEMISTRY PARAMETERS (µg/L)					
Ammonia	4.54E+02	J	N/A	N/A	N/A
Bromide	2.67E+03		N/A	N/A	N/A
Chloride	5.71E+05		2.50E+02	WQCC	YES
Fluoride	2.49E+03		1.60E+00	WQCC	YES
Perchlorate	4.20E+00		2.60E+01	RSLs	N/A
Sulfate	6.63E+05		6.00E+02	WQCC	YES
Total Organic Carbon	7.00E+02	J	N/A	N/A	N/A

Notes:
µg/L = microgram per Liter
AOC = Area of Concern
J = Estimated
N/A = Not available
Qual = Qualifier
RSLs = Tap Water Regional Screening Levels for Chemical Contaminants at Superfund Sites (USEPA 2008)
WQCC = Water Quality Control Commission. New Mexico Administrative Code (NMAC). Title 20 Environmental Protection, Chapter 6 Water Quality, Part 2 Ground and Surface Water Protection, Section 20.6.2.3103 Subsections A, B, & C

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TABLE 4-7
SUMMARY OF DETECTED COMPOUNDS AT AOC 2
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MA02MW001D			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)						
Benzene	2.00E-01 J	1 / 1	2.00E-01	1.60E-01	1.00E+00	J
Chloroethane	4.00E-01 J	1 / 1	4.00E-01	2.10E-01	1.00E+00	J
Toluene	3.00E-01 J	1 / 1	3.00E-01	1.70E-01	1.00E+00	J
Vinyl Chloride	1.10E+00	1 / 1	1.10E+00	2.30E-01	1.00E+00	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)						
All target analytes were nondetect						
PESTICIDES (ORGANOCHLORINE) (µg/L)						
All target analytes were nondetect						
EXPLOSIVES (µg/L)						
All target analytes were nondetect						
DISSOLVED METALS by 6010B (µg/L)						
Calcium	1.23E+05	1 / 1	1.23E+05	1.09E+03	4.00E+03	
Magnesium	5.77E+04	1 / 1	5.77E+04	1.29E+01	5.00E+01	
Potassium	1.25E+04	1 / 1	1.25E+04	9.95E+01	1.00E+03	
Sodium	1.88E+06	1 / 1	1.88E+06	4.44E+03	4.00E+04	
DISSOLVED METALS by 6020A (µg/L)						
Antimony	8.90E-01	1 / 1	8.90E-01	1.00E-02	2.00E-01	
Arsenic	1.02E+01	1 / 1	1.02E+01	9.00E-02	2.00E-01	
Barium	1.03E+01	1 / 1	1.03E+01	4.00E-02	5.00E-01	
Chromium	1.20E+00	1 / 1	1.20E+00	4.00E-02	5.00E-01	
Chromium III	1.20E+00	1 / 1	1.20E+00	4.00E-02	5.00E-01	
Cobalt	4.60E-01 J	1 / 1	4.60E-01	3.00E-02	5.00E-01	J
Copper	3.38E+01	1 / 1	3.38E+01	1.30E-01	5.00E-01	
Lead	1.30E-01 J	1 / 1	1.30E-01	1.10E-01	2.00E-01	J
Manganese	1.58E+02	1 / 1	1.58E+02	6.00E-02	5.00E-01	
Mercury	6.00E-02	1 / 1	6.00E-02	6.00E-02	2.00E-01	
Molybdenum	2.36E+01	1 / 1	2.36E+01	7.00E-02	5.00E-01	
Selenium	5.24E+01	1 / 1	5.24E+01	1.00E-01	1.00E+00	
Vanadium	5.60E+00	1 / 1	5.60E+00	7.00E-02	5.00E-01	
Zinc	3.75E+02	1 / 1	3.75E+02	2.30E+00	5.00E+01	
WET CHEMISTRY PARAMETERS (µg/L)						
Bromide	1.21E+04	1 / 1	1.21E+04	5.00E+02	5.00E+03	
Chloride	2.12E+06	1 / 1	2.12E+06	4.00E+03	5.00E+04	
Fluoride	1.12E+03 J	1 / 1	1.12E+03	8.00E+02	1.00E+04	J
Perchlorate	1.90E+01	1 / 1	1.90E+01	2.00E+00	6.00E+00	
Sulfate	2.02E+06	1 / 1	2.02E+06	4.50E+03	5.00E+04	
Total Organic Carbon	6.60E+00	1 / 1	6.60E+02	7.00E+01	5.00E+02	

Notes:
µg/L = microgram per Liter
AOC = Area of Concern
ID = Identification
J = Estimated
MDL = Method Detection Limit
MW = Monitoring Well
Qual = Qualifier
RL = Reporting Limit

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TABLE 4-8
COMPARISON OF AOC 2 MAXIMUM GROUNDWATER CONCENTRATIONS TO GROUNDWATER SCREENING LEVELS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Chemical	Maximum Detected Concentration (µg/L)	Qual	Groundwater Screening Level (µg/L)	Groundwater Screening Level Source	Exceeds Groundwater Screening Level?
VOLATILE ORGANIC COMPOUNDS (µg/L)					
Benzene	2.00E-01	J	1.00E+01	WQCC	NO
Chloroethane	4.00E-01	J	2.10E+04	RSLs	NO
Toluene	3.00E-01	J	7.50E+02	WQCC	NO
Vinyl Chloride	1.10E+00		1.00E+00	WQCC	YES
DISSOLVED METALS by 6010B (µg/L)					
Calcium	1.23E+05		N/A	N/A	N/A
Magnesium	5.77E+04		N/A	N/A	N/A
Potassium	1.25E+04		N/A	N/A	N/A
Sodium	1.88E+06		N/A	N/A	N/A
DISSOLVED METALS by 6020A (µg/L)					
Antimony	8.90E-01		1.50E+01	RSLs	NO
Arsenic	1.02E+01		1.00E+02	WQCC	NO
Barium	1.03E+01		1.00E+03	WQCC	NO
Chromium	1.20E+00		5.00E+01	WQCC	NO
Chromium III	1.20E+00		5.00E+01	WQCC	NO
Cobalt	4.60E-01	J	5.00E+01	WQCC	NO
Copper	3.38E+01		1.00E+03	WQCC	NO
Lead	1.30E-01	J	5.00E+01	WQCC	NO
Manganese	1.58E+02		2.00E+02	WQCC	NO
Mercury	6.00E-02		2.00E+00	WQCC	NO
Molybdenum	2.36E+01		1.00E+03	WQCC	NO
Selenium	5.24E+01		5.00E+01	WQCC	YES
Vanadium	5.60E+00		1.80E+02	RSLs	NO
Zinc	3.75E+02		1.00E+04	WQCC	NO
WET CHEMISTRY PARAMETERS (µg/L)					
Bromide	1.21E+04		N/A	N/A	N/A
Chloride	2.12E+06		2.50E+02	WQCC	YES
Fluoride	1.12E+03	J	1.60E+00	WQCC	YES
Perchlorate	1.90E+01		2.60E+01	RSLs	NO
Sulfate	2.02E+06		6.00E+02	WQCC	YES
Total Organic Carbon	6.60E+00		N/A	N/A	N/A

Notes:
µg/L = microgram per Liter
AOC = Area of Concern
J = Estimated
N/A = Not Available
Qual = Qualifier
RSLs = Tap Water Regional Screening Levels for Chemical Contaminants at Superfund Sites (USEPA 2008)
WQCC = Water Quality Control Commission. New Mexico Administrative Code (NMAC). Title 20 Environmental Protection, Chapter 6 Water Quality, Part 2 Ground and Surface Water Protection, Section 20.6.2.3103 Subsections A, B, & C

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TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWL-4 *				MWL-5				MWL-6			
DATE COLLECTED			January 30, 2009				February 2, 2009				February 2, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)														
Calcium	6.28E+05	18 / 18	5.55E+03	2.72E+01	1.00E+02		6.75E+04	2.72E+01	1.00E+02		2.05E+04	2.72E+01	1.00E+02	
Magnesium	3.62E+05	18 / 18	4.57E+03	1.29E+01	5.00E+01		2.57E+04	1.29E+01	5.00E+01		1.40E+04	1.29E+01	5.00E+01	
Potassium	3.84E+04	18 / 18	3.84E+04	9.95E+01	1.00E+03		6.74E+03	9.95E+01	1.00E+03		4.75E+03	9.95E+01	1.00E+03	
Sodium	3.36E+06	18 / 18	5.07E+04	2.22E+02	2.00E+03		1.35E+05	5.56E+02	5.00E+03		6.22E+04	2.22E+02	2.00E+03	
DISSOLVED METALS by 6020A (µg/L)														
Antimony	2.00E+00 J	7 / 18	<	1.00E-02	2.30E-01	U	2.60E-02	1.00E-02	2.00E-01	J	5.30E-02	1.00E-02	2.00E-01	J
Arsenic	1.15E+01	18 / 18	8.80E-01	9.00E-02	2.00E-01		1.00E+00	9.00E-02	2.00E-01		1.80E+00	9.00E-02	2.00E-01	
Barium	1.53E+02	18 / 18	1.74E+01	4.00E-02	5.00E-01		1.53E+02	4.00E-02	5.00E-01		1.12E+01	4.00E-02	5.00E-01	
Beryllium	5.10E-02 J	4 / 18	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U	<	4.00E-02	4.00E-01	U
Cadmium	4.80E+00	18 / 18	5.20E-01	2.00E-02	2.00E-01		1.70E+00	2.00E-02	2.00E-01		2.10E-01	2.00E-02	2.00E-01	
Chromium	3.36E+01	17 / 18	6.50E-01	4.00E-02	5.00E-01		9.20E-01	4.00E-02	5.00E-01		3.10E-01	4.00E-02	5.00E-01	J
Chromium III	2.60E+00	18 / 18	6.50E-01	4.00E-02	5.00E-01		9.20E-01	4.00E-02	5.00E-01		3.10E-01	4.00E-02	5.00E-01	J
Cobalt	2.40E+00	18 / 18	7.10E-01	3.00E-02	5.00E-01		6.70E-01	3.00E-02	5.00E-01		9.70E-02	3.00E-02	5.00E-01	J
Copper	6.40E+00	18 / 18	2.40E+00	1.30E-01	5.00E-01		3.40E+00	1.30E-01	5.00E-01		1.80E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	16 / 18	4.70E-01	1.10E-01	2.00E-01		3.70E-01	1.10E-01	2.00E-01		2.10E-01	1.10E-01	2.00E-01	
Manganese	8.86E+02	18 / 18	1.15E+02	6.00E-02	5.00E-01		2.59E+02	6.00E-02	5.00E-01		5.12E+01	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 18	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U
Molybdenum	5.79E+01	18 / 18	1.50E+00	7.00E-02	5.00E-01		8.50E-01	7.00E-02	5.00E-01		1.30E+00	7.00E-02	5.00E-01	
Selenium	4.57E+01	18 / 18	2.20E+00	1.00E-01	1.00E+00		3.00E+00	1.00E-01	1.00E+00		3.10E+00	1.00E-01	1.00E+00	
Silver	7.80E-02 J	2 / 18	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	7.80E-02	3.00E-02	2.00E-01	J
Vanadium	6.85E+01	15 / 18	9.30E-02	7.00E-02	5.00E-01	J	3.20E+00	7.00E-02	5.00E-01		3.40E+00	7.00E-02	5.00E-01	
Zinc	2.39E+03	17 / 18	2.39E+03	1.20E+01	2.50E+02		1.68E+01	2.30E+00	5.00E+01	J	1.79E+01	2.30E+00	5.00E+01	J

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWL-4 *				MWL-5				MWL-6			
DATE COLLECTED			January 30, 2009				February 2, 2009				February 2, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)														
Alkalinity	7.85E+05	18 / 18	3.87E+05	8.52E+02	2.00E+03		6.25E+05	8.52E+02	2.00E+03		9.30E+04	8.52E+02	2.00E+03	
Ammonia	8.91E+04	16 / 18	3.12E+04	2.44E+02	1.00E+03		5.58E+03	2.44E+02	5.00E+02		3.17E+02	2.44E+02	5.00E+02	J
Hexavalent Chromium	8.20E-01	1 / 18	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ
Nitrate-Nitrite	9.65E+03	16 / 18	5.86E+01	2.80E+01	5.00E+02	J	3.42E+01	2.80E+01	5.00E+02	J	6.08E+01	2.80E+01	5.00E+02	J
Phosphorus, Total Orthophosphate	1.91E+03	1 / 17	NR				1.91E+03	2.15E+02	1.00E+03		<	2.15E+02	1.00E+03	U
Total Dissolved Solids	1.21E+07	18 / 18	2.60E+05	4.40E+03	1.00E+04	J	6.18E+05	4.40E+03	1.00E+04	J	3.24E+05	4.40E+03	1.00E+04	J
Total Organic Carbon	9.84E+04	16 / 18	8.10E+03	7.00E+01	5.00E+02		5.70E+03	7.00E+01	5.00E+02		1.10E+03	7.00E+01	5.00E+02	

Notes:

* There is no result for Phosphorus (Total Orthophosphate) due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in the original sample.

< = Less than Reporting Limit

µg/L = microgram per Liter

ID = Identification

J = Estimated

MDL = Method Detection Limit

MWL = Melrose Air Force Range Water Level Well

MWQ = Melrose Air Force Range Water Quality Well

NR = No result

Qual = Qualifier

RL = Reporting Limit

U = Nondetect

UJ = Estimated Nondetect

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWL-7				MWL-9				MWQ-2			
DATE COLLECTED			February 2, 2009				January 22, 2009				January 21, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)														
Calcium	6.28E+05	18 / 18	5.92E+03	2.72E+01	1.00E+02		6.08E+04	2.72E+01	1.00E+02		2.01E+05	2.72E+03	1.00E+04	
Magnesium	3.62E+05	18 / 18	3.78E+03	1.29E+01	5.00E+01		1.00E+04	1.29E+01	5.00E+01		1.36E+05	1.29E+03	5.00E+03	
Potassium	3.84E+04	18 / 18	3.27E+04	9.95E+01	1.00E+03		2.50E+03	9.95E+01	1.00E+03		9.39E+03	9.95E+01	1.00E+03	
Sodium	3.36E+06	18 / 18	5.46E+04	2.22E+02	2.00E+03		6.86E+04	5.56E+02	5.00E+03		2.44E+06	1.11E+04	1.00E+05	
DISSOLVED METALS by 6020A (µg/L)														
Antimony	2.00E+00 J	7 / 18	2.00E-01	1.00E-02	2.00E-01		<	1.00E-02	2.20E-01	U	2.00E+00	1.00E-02	2.00E-01	J
Arsenic	1.15E+01	18 / 18	1.40E+00	9.00E-02	2.00E-01		2.90E+00	9.00E-02	2.00E-01		8.70E-01	9.00E-02	2.00E-01	J
Barium	1.53E+02	18 / 18	6.90E+00	4.00E-02	5.00E-01		6.64E+01	4.00E-02	5.00E-01		3.13E+01	4.00E-02	5.00E-01	J
Beryllium	5.10E-02 J	4 / 18	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U	4.40E-02	4.00E-02	2.00E-01	J
Cadmium	4.80E+00	18 / 18	4.80E+00	2.00E-02	2.00E-01		4.50E-01	2.00E-02	2.00E-01		1.30E-01	2.00E-02	2.00E-01	J
Chromium	3.36E+01	17 / 18	3.90E-01	4.00E-02	5.00E-01	J	<	4.00E-02	6.50E-01	U	2.60E+00	4.00E-02	5.00E-01	
Chromium III	2.60E+00	18 / 18	3.90E-01	4.00E-02	5.00E-01	J	6.50E-01	4.00E-02	5.00E-01		2.60E+00	4.00E-02	5.00E-01	
Cobalt	2.40E+00	18 / 18	7.10E-01	3.00E-02	5.00E-01		1.50E-01	3.00E-02	5.00E-01	J	1.00E+00	3.00E-02	5.00E-01	
Copper	6.40E+00	18 / 18	3.70E+00	1.30E-01	5.00E-01		3.30E+00	1.30E-01	5.00E-01		3.50E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	16 / 18	3.40E-01	1.10E-01	2.00E-01		3.20E-01	1.10E-01	2.00E-01		1.10E-01	1.10E-01	2.00E-01	
Manganese	8.86E+02	18 / 18	1.26E+01	6.00E-02	5.00E-01		6.40E+00	6.00E-02	5.00E-01		4.58E+02	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 18	1.50E-01	6.00E-02	2.00E-01	J	<	6.00E-02	2.00E-01	U	1.30E-01	6.00E-02	2.00E-01	J
Molybdenum	5.79E+01	18 / 18	6.80E+00	7.00E-02	5.00E-01		2.80E+00	7.00E-02	5.00E-01		2.28E+01	7.00E-02	5.00E-01	
Selenium	4.57E+01	18 / 18	1.50E+00	1.00E-01	1.00E+00		3.80E+00	1.00E-01	1.00E+00		2.20E+00	1.00E-01	1.00E+00	J
Silver	7.80E-02 J	2 / 18	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U
Vanadium	6.85E+01	15 / 18	9.30E-02	7.00E-02	5.00E-01	J	1.94E+01	7.00E-02	5.00E-01		<	7.00E-02	5.00E-01	U
Zinc	2.39E+03	17 / 18	5.25E+01	2.30E+00	5.00E+01		2.11E+03	1.20E+01	2.50E+02		8.46E+02	2.30E+00	5.00E+01	

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWL-7				MWL-9				MWQ-2			
DATE COLLECTED			February 2, 2009				January 22, 2009				January 21, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)														
Alkalinity	7.85E+05	18 / 18	7.85E+05	8.52E+02	2.00E+03		1.92E+05	8.52E+02	2.00E+03		9.37E+04	8.52E+02	2.00E+03	
Ammonia	8.91E+04	16 / 18	8.91E+04	2.44E+02	5.00E+03		2.01E+02	2.44E+02	5.00E+02	J	5.31E+02	2.44E+02	5.00E+02	
Hexavalent Chromium	8.20E-01	1 / 18	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	U
Nitrate-Nitrite	9.65E+03	16 / 18	<	2.80E+01	5.00E+02	U	6.94E+03	2.80E+01	5.00E+02		<	2.80E+01	5.00E+02	U
Phosphorus, Total Orthophosphate	1.91E+03	1 / 17	<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U	<	5.38E+03	2.50E+04	U
Total Dissolved Solids	1.21E+07	18 / 18	2.34E+05	4.40E+03	1.00E+04	J	4.27E+05	4.40E+03	1.00E+04		7.36E+06	4.40E+04	1.00E+05	
Total Organic Carbon	9.84E+04	16 / 18	5.70E+03	7.00E+01	5.00E+02		2.40E+03	7.00E+01	5.00E+02		5.00E+02	7.00E+01	5.00E+02	

Notes:

* There is no result for Phosphorus (Total Orthophosphate) due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in the original sample.

< = Less than Reporting Limit

µg/L = microgram per Liter

ID = Identification

J = Estimated

MDL = Method Detection Limit

MWL = Melrose Air Force Range Water Level Well

MWQ = Melrose Air Force Range Water Quality Well

NR = No result

Qual = Qualifier

RL = Reporting Limit

U = Nondetect

UJ = Estimated Nondetect

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-3				MWQ-4				MWQ-5			
DATE COLLECTED			January 21, 2009				February 2, 2009				January 23, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)														
Calcium	6.28E+05	18 / 18	3.07E+04	2.72E+01	1.00E+02		3.98E+04	2.72E+01	1.00E+02		4.38E+04	2.72E+01	1.00E+02	
Magnesium	3.62E+05	18 / 18	3.36E+04	1.29E+01	5.00E+01		1.86E+04	1.29E+01	5.00E+01		2.40E+04	1.29E+01	5.00E+01	
Potassium	3.84E+04	18 / 18	5.78E+03	9.95E+01	1.00E+03		2.68E+03	9.95E+01	1.00E+03		2.95E+03	9.95E+01	1.00E+03	
Sodium	3.36E+06	18 / 18	1.03E+05	5.56E+02	5.00E+03		5.15E+04	2.22E+02	2.00E+03		8.36E+04	5.56E+02	5.00E+03	
DISSOLVED METALS by 6020A (µg/L)														
Antimony	2.00E+00 J	7 / 18	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U
Arsenic	1.15E+01	18 / 18	1.15E+01	9.00E-02	2.00E-01		7.90E+00	9.00E-02	2.00E-01		9.20E+00	9.00E-02	2.00E-01	
Barium	1.53E+02	18 / 18	2.75E+01	4.00E-02	5.00E-01		4.47E+01	4.00E-02	5.00E-01		3.42E+01	4.00E-02	5.00E-01	
Beryllium	5.10E-02 J	4 / 18	5.10E-02	4.00E-02	2.00E-01	J	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U
Cadmium	4.80E+00	18 / 18	1.30E-01	2.00E-02	2.00E-01	J	3.50E-01	2.00E-02	2.00E-01		1.20E+00	2.00E-02	2.00E-01	
Chromium	3.36E+01	17 / 18	1.00E+00	4.00E-02	5.00E-01		6.10E-01	4.00E-02	5.00E-01		9.50E-01	4.00E-02	5.00E-01	
Chromium III	2.60E+00	18 / 18	1.00E+00	4.00E-02	5.00E-01		6.10E-01	4.00E-02	5.00E-01		1.30E-01	4.00E-02	5.00E-01	J
Cobalt	2.40E+00	18 / 18	4.30E-02	3.00E-02	5.00E-01	J	7.00E-02	3.00E-02	5.00E-01	J	5.20E-02	3.00E-02	5.00E-01	J
Copper	6.40E+00	18 / 18	2.50E+00	1.30E-01	5.00E-01	J	6.40E+00	1.30E-01	5.00E-01		4.50E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	16 / 18	1.90E-01	1.10E-01	2.00E-01	J	2.10E-01	1.10E-01	2.00E-01		3.40E-01	1.10E-01	2.00E-01	
Manganese	8.86E+02	18 / 18	2.00E-01	6.00E-02	5.00E-01	J	5.80E-01	6.00E-02	5.00E-01		1.70E+00	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 18	1.00E-01	6.00E-02	2.00E-01	J	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U
Molybdenum	5.79E+01	18 / 18	5.70E+00	7.00E-02	5.00E-01		3.50E+00	7.00E-02	5.00E-01		4.20E+00	7.00E-02	5.00E-01	
Selenium	4.57E+01	18 / 18	7.20E+00	1.00E-01	1.00E+00		3.50E+00	1.00E-01	1.00E+00		8.80E+00	1.00E-01	1.00E+00	
Silver	7.80E-02 J	2 / 18	<	3.00E-02	2.00E-01	U	3.30E-02	3.00E-02	2.00E-01	J	<	3.00E-02	2.00E-01	U
Vanadium	6.85E+01	15 / 18	6.85E+01	7.00E-02	5.00E-01		5.37E+01	7.00E-02	5.00E-01		6.02E+01	7.00E-02	5.00E-01	
Zinc	2.39E+03	17 / 18	<	2.30E+00	5.00E+01	U	1.16E+01	2.30E+00	5.00E+01	J	3.62E+01	2.30E+00	5.00E+01	J

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-3				MWQ-4				MWQ-5			
DATE COLLECTED			January 21, 2009				February 2, 2009				January 23, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)														
Alkalinity	7.85E+05	18 / 18	1.87E+05	8.52E+02	2.00E+03		2.85E+05	8.52E+02	2.00E+03		2.14E+05	8.52E+02	2.00E+03	
Ammonia	8.91E+04	16 / 18	2.41E+02	2.44E+02	5.00E+02	J	<	2.44E+02	5.00E+02	U	4.73E+02	2.44E+02	5.00E+02	J
Hexavalent Chromium	8.20E-01	1 / 18	<	6.00E+00	2.00E+01	U	<	6.00E+00	2.00E+01	U	8.20E-01	9.00E-02	5.00E-01	
Nitrate-Nitrite	9.65E+03	16 / 18	9.97E+02	2.80E+01	5.00E+02		4.82E+03	2.80E+01	5.00E+02		6.06E+03	2.80E+01	5.00E+02	
Phosphorus, Total Orthophosphate	1.91E+03	1 / 17	<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U
Total Dissolved Solids	1.21E+07	18 / 18	4.71E+05	4.40E+03	1.00E+04		3.68E+05	4.40E+03	1.00E+04	J	4.28E+05	4.40E+03	1.00E+04	
Total Organic Carbon	9.84E+04	16 / 18	<	7.00E+01	5.00E+02	U	6.00E+02	7.00E+01	5.00E+02		8.00E+02	7.00E+01	5.00E+02	

Notes:

* There is no result for Phosphorus (Total Orthophosphate) due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in the original sample.

< = Less than Reporting Limit

µg/L = microgram per Liter

ID = Identification

J = Estimated

MDL = Method Detection Limit

MWL = Melrose Air Force Range Water Level Well

MWQ = Melrose Air Force Range Water Quality Well

NR = No result

Qual = Qualifier

RL = Reporting Limit

U = Nondetect

UJ = Estimated Nondetect

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-6				MWQ-7				MWQ-10			
DATE COLLECTED			January 20, 2009				January 20, 2009				January 20, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)														
Calcium	6.28E+05	18 / 18	4.29E+04	2.72E+01	1.00E+02		6.05E+04	2.72E+01	1.00E+02		6.53E+04	2.72E+01	1.00E+02	
Magnesium	3.62E+05	18 / 18	2.05E+04	1.29E+01	5.00E+01		2.62E+04	1.29E+01	5.00E+01		3.74E+04	1.29E+01	5.00E+01	
Potassium	3.84E+04	18 / 18	2.36E+03	9.95E+01	1.00E+03		2.39E+03	9.95E+01	1.00E+03		5.25E+03	9.95E+01	1.00E+03	
Sodium	3.36E+06	18 / 18	7.28E+04	5.56E+02	5.00E+03		9.23E+04	5.56E+02	5.00E+03		1.91E+04	1.11E+02	1.00E+03	
DISSOLVED METALS by 6020A (µg/L)														
Antimony	2.00E+00 J	7 / 18	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U
Arsenic	1.15E+01	18 / 18	8.00E+00	9.00E-02	2.00E-01	J	6.80E+00	9.00E-02	2.00E-01		5.40E+00	9.00E-02	2.00E-01	
Barium	1.53E+02	18 / 18	3.53E+01	4.00E-02	5.00E-01	J	3.10E+01	4.00E-02	5.00E-01		1.33E+02	4.00E-02	5.00E-01	
Beryllium	5.10E-02 J	4 / 18	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U
Cadmium	4.80E+00	18 / 18	7.00E-02	2.00E-02	2.00E-01	J	3.20E+00	2.00E-02	2.00E-01	J	4.10E-01	2.00E-02	2.00E-01	
Chromium	3.36E+01	17 / 18	9.30E-01	4.00E-02	5.00E-01		8.50E-01	4.00E-02	5.00E-01		3.50E-01	4.00E-02	5.00E-01	J
Chromium III	2.60E+00	18 / 18	9.30E-01	4.00E-02	5.00E-01		8.50E-01	4.00E-02	5.00E-01		3.50E-01	4.00E-02	5.00E-01	J
Cobalt	2.40E+00	18 / 18	4.70E-02	3.00E-02	5.00E-01	J	7.20E-02	3.00E-02	5.00E-01	J	9.10E-02	3.00E-02	5.00E-01	J
Copper	6.40E+00	18 / 18	2.60E+00	1.30E-01	5.00E-01	J	4.20E+00	1.30E-01	5.00E-01	J	4.70E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	16 / 18	3.80E-01	1.10E-01	2.00E-01		3.10E+00	1.10E-01	2.00E-01	J	1.00E+00	1.10E-01	2.00E-01	J
Manganese	8.86E+02	18 / 18	6.30E-01	6.00E-02	5.00E-01		1.40E+00	6.00E-02	5.00E-01	J	6.90E-01	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 18	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U
Molybdenum	5.79E+01	18 / 18	2.70E+00	7.00E-02	5.00E-01		5.10E+00	7.00E-02	5.00E-01		5.00E+00	7.00E-02	5.00E-01	
Selenium	4.57E+01	18 / 18	2.60E+00	1.00E-01	1.00E+00		6.50E+00	1.00E-01	1.00E+00		3.00E+00	1.00E-01	1.00E+00	
Silver	7.80E-02 J	2 / 18	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U
Vanadium	6.85E+01	15 / 18	5.12E+01	7.00E-02	5.00E-01		4.54E+01	7.00E-02	5.00E-01		3.29E+01	7.00E-02	5.00E-01	
Zinc	2.39E+03	17 / 18	3.30E+01	2.30E+00	5.00E+01	J	8.80E+00	2.30E+00	5.00E+01	J	2.28E+01	2.30E+00	5.00E+01	J

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-6				MWQ-7				MWQ-10			
DATE COLLECTED			January 20, 2009				January 20, 2009				January 20, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)														
Alkalinity	7.85E+05	18 / 18	2.51E+05	8.52E+02	2.00E+03	J	1.66E+05	8.52E+02	2.00E+03		2.36E+05	8.52E+02	2.00E+03	
Ammonia	8.91E+04	16 / 18	2.07E+02	2.44E+02	5.00E+02	J	6.32E+02	2.44E+02	5.00E+02		6.13E+02	2.44E+02	5.00E+02	
Hexavalent Chromium	8.20E-01	1 / 18	<	6.00E+00	2.00E+01	U	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ
Nitrate-Nitrite	9.65E+03	16 / 18	4.54E+03	2.80E+01	5.00E+02		1.67E+03	2.80E+01	5.00E+02		9.65E+03	2.80E+01	5.00E+02	
Phosphorus, Total Orthophosphate	1.91E+03	1 / 17	<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U
Total Dissolved Solids	1.21E+07	18 / 18	3.76E+05	4.40E+03	1.00E+04		5.04E+05	4.40E+03	1.00E+04		4.12E+05	4.40E+03	1.00E+04	
Total Organic Carbon	9.84E+04	16 / 18	2.14E+03	1.29E+02	5.00E+02	J	4.35E+03	1.29E+02	5.00E+02	J	4.13E+03	7.00E+01	5.00E+02	J

Notes:

* There is no result for Phosphorus (Total Orthophosphate) due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in the original sample.

< = Less than Reporting Limit

µg/L = microgram per Liter

ID = Identification

J = Estimated

MDL = Method Detection Limit

MWL = Melrose Air Force Range Water Level Well

MWQ = Melrose Air Force Range Water Quality Well

NR = No result

Qual = Qualifier

RL = Reporting Limit

U = Nondetect

UJ = Estimated Nondetect

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-14				MWQ-18				MWQ-19			
DATE COLLECTED			January 29, 2009				January 22, 2009				January 22, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)														
Calcium	6.28E+05	18 / 18	6.99E+04	2.72E+01	1.00E+02		3.88E+04	2.72E+01	1.00E+02		3.34E+05	2.72E+03	1.00E+04	
Magnesium	3.62E+05	18 / 18	6.83E+04	1.29E+01	5.00E+01		1.82E+04	1.29E+01	5.00E+01		2.24E+05	1.29E+03	5.00E+03	
Potassium	3.84E+04	18 / 18	1.15E+04	9.95E+01	1.00E+03		2.43E+03	9.95E+01	1.00E+03		1.01E+04	9.95E+01	1.00E+03	
Sodium	3.36E+06	18 / 18	8.06E+05	2.78E+03	2.50E+04		6.39E+04	5.56E+02	5.00E+03		1.33E+06	1.11E+04	1.00E+05	
DISSOLVED METALS by 6020A (µg/L)														
Antimony	2.00E+00 J	7 / 18	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U	<	1.00E-02	3.70E-01	U
Arsenic	1.15E+01	18 / 18	5.20E+00	9.00E-02	2.00E-01		8.50E+00	9.00E-02	2.00E-01		5.30E+00	9.00E-02	2.00E-01	
Barium	1.53E+02	18 / 18	1.26E+01	4.00E-02	5.00E-01		3.43E+01	4.00E-02	5.00E-01		2.89E+01	4.00E-02	5.00E-01	
Beryllium	5.10E-02 J	4 / 18	4.10E-02	4.00E-02	2.00E-01	J	<	4.00E-02	2.00E-01	U	4.80E-02	4.00E-02	2.00E-01	J
Cadmium	4.80E+00	18 / 18	1.30E-01	2.00E-02	2.00E-01	J	1.30E+00	2.00E-02	2.00E-01		1.40E+00	2.00E-02	2.00E-01	
Chromium	3.36E+01	17 / 18	2.00E+00	4.00E-02	5.00E-01	B	8.80E-01	4.00E-02	5.00E-01		3.36E+01	4.00E-02	5.00E-01	
Chromium III	2.60E+00	18 / 18	2.00E+00	4.00E-02	5.00E-01	B	8.80E-01	4.00E-02	5.00E-01		8.80E-01	4.00E-02	5.00E-01	
Cobalt	2.40E+00	18 / 18	1.30E-01	3.00E-02	5.00E-01	J	7.10E-02	3.00E-02	5.00E-01	J	6.50E-01	3.00E-02	5.00E-01	
Copper	6.40E+00	18 / 18	3.10E+00	1.30E-01	5.00E-01		2.20E+00	1.30E-01	5.00E-01		4.80E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	16 / 18	<	1.10E-01	2.00E-01	U	1.40E+00	1.10E-01	2.00E-01		3.10E-01	1.10E-01	2.00E-01	
Manganese	8.86E+02	18 / 18	7.30E-01	6.00E-02	5.00E-01		5.10E-01	6.00E-02	5.00E-01		4.72E+02	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 18	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U
Molybdenum	5.79E+01	18 / 18	2.98E+01	7.00E-02	5.00E-01		4.50E+00	7.00E-02	5.00E-01		4.20E-01	7.00E-02	5.00E-01	J
Selenium	4.57E+01	18 / 18	4.57E+01	1.00E-01	1.00E+00		3.80E+00	1.00E-01	1.00E+00		1.28E+01	1.00E-01	1.00E+00	
Silver	7.80E-02 J	2 / 18	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U
Vanadium	6.85E+01	15 / 18	4.80E+00	7.00E-02	5.00E-01		5.29E+01	7.00E-02	5.00E-01		<	7.00E-02	5.00E-01	U
Zinc	2.39E+03	17 / 18	2.66E+02	2.30E+00	5.00E+01		1.71E+02	2.30E+00	5.00E+01		9.56E+02	2.30E+00	5.00E+01	

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-14				MWQ-18				MWQ-19			
DATE COLLECTED			January 29, 2009				January 22, 2009				January 22, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)														
Alkalinity	7.85E+05	18 / 18	2.12E+05	8.52E+02	2.00E+03		1.97E+05	8.52E+02	2.00E+03		4.55E+05	8.52E+02	2.00E+03	
Ammonia	8.91E+04	16 / 18	<	2.44E+02	5.00E+02	U	4.21E+02	2.44E+02	5.00E+02	J	5.70E+02	2.44E+02	5.00E+02	
Hexavalent Chromium	8.20E-01	1 / 18	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	U	<	6.00E+00	2.00E+01	U
Nitrate-Nitrite	9.65E+03	16 / 18	2.63E+03	2.80E+01	5.00E+02		5.34E+02	2.80E+01	5.00E+02		6.27E+01	2.80E+01	5.00E+02	J
Phosphorus, Total Orthophosphate	1.91E+03	1 / 17	<	4.30E+02	2.00E+03	U	<	2.15E+02	1.00E+03	U	<	1.08E+03	5.00E+03	U
Total Dissolved Solids	1.21E+07	18 / 18	2.60E+06	1.76E+04	4.00E+04		4.45E+05	4.40E+03	1.00E+04		4.70E+06	4.40E+04	1.00E+05	
Total Organic Carbon	9.84E+04	16 / 18	6.00E+02	7.00E+01	5.00E+02		7.00E+02	7.00E+01	5.00E+02		9.84E+04	7.00E+02	5.00E+03	

Notes:

* There is no result for Phosphorus (Total Orthophosphate) due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in the original sample.

< = Less than Reporting Limit

µg/L = microgram per Liter

ID = Identification

J = Estimated

MDL = Method Detection Limit

MWL = Melrose Air Force Range Water Level Well

MWQ = Melrose Air Force Range Water Quality Well

NR = No result

Qual = Qualifier

RL = Reporting Limit

U = Nondetect

UJ = Estimated Nondetect

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-20				MWQ-21				MWQ-22			
DATE COLLECTED			January 22, 2009				January 23, 2009				January 23, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)														
Calcium	6.28E+05	18 / 18	6.28E+05	2.72E+03	1.00E+04		1.82E+05	2.72E+02	1.00E+03		5.66E+04	2.72E+01	1.00E+02	
Magnesium	3.62E+05	18 / 18	3.62E+05	1.29E+01	5.00E+03		7.51E+04	1.29E+01	5.00E+01		2.24E+04	1.29E+01	5.00E+01	
Potassium	3.84E+04	18 / 18	1.33E+04	9.95E+01	1.00E+03	J	1.06E+04	9.95E+01	1.00E+03		3.52E+03	9.95E+01	1.00E+03	
Sodium	3.36E+06	18 / 18	3.36E+06	1.11E+04	1.00E+05		2.51E+05	1.11E+03	1.00E+04		5.90E+05	2.22E+03	2.00E+04	
DISSOLVED METALS by 6020A (µg/L)														
Antimony	2.00E+00 J	7 / 18	6.30E-01	1.00E-02	2.00E-01		8.80E-01	1.00E-02	2.00E-01		1.00E+00	1.00E-02	2.00E-01	
Arsenic	1.15E+01	18 / 18	5.10E+00	9.00E-02	2.00E-01		6.60E+00	9.00E-02	2.00E-01		1.10E+00	9.00E-02	2.00E-01	
Barium	1.53E+02	18 / 18	2.51E+01	4.00E-02	5.00E-01		4.22E+01	4.00E-02	5.00E-01		6.51E+01	4.00E-02	5.00E-01	
Beryllium	5.10E-02 J	4 / 18	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U
Cadmium	4.80E+00	18 / 18	6.10E-01	2.00E-02	2.00E-01		2.00E+00	2.00E-02	2.00E-01		2.20E+00	2.00E-02	2.00E-01	
Chromium	3.36E+01	17 / 18	2.50E+00	4.00E-02	5.00E-01		1.60E+00	4.00E-02	5.00E-01		1.20E+00	4.00E-02	5.00E-01	
Chromium III	2.60E+00	18 / 18	2.50E+00	4.00E-02	5.00E-01		1.60E+00	4.00E-02	5.00E-01		1.20E+00	4.00E-02	5.00E-01	
Cobalt	2.40E+00	18 / 18	2.40E+00	3.00E-02	5.00E-01		2.20E-01	3.00E-02	5.00E-01	J	4.30E-01	3.00E-02	5.00E-01	J
Copper	6.40E+00	18 / 18	4.00E+00	1.30E-01	5.00E-01		4.30E+00	1.30E-01	5.00E-01		2.30E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	16 / 18	1.60E-01	1.10E-01	2.00E-01	J	2.30E-01	1.10E-01	2.00E-01		<	1.10E-01	2.00E-01	U
Manganese	8.86E+02	18 / 18	8.86E+02	6.00E-02	5.00E-01		3.80E+00	6.00E-02	5.00E-01		2.01E+02	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 18	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U
Molybdenum	5.79E+01	18 / 18	1.41E+01	7.00E-02	5.00E-01		8.80E+00	7.00E-02	5.00E-01		5.79E+01	7.00E-02	5.00E-01	
Selenium	4.57E+01	18 / 18	3.04E+01	1.00E-01	1.00E+00		1.48E+01	1.00E-01	1.00E+00		2.30E+00	1.00E-01	1.00E+00	
Silver	7.80E-02 J	2 / 18	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U
Vanadium	6.85E+01	15 / 18	<	7.00E-02	5.00E-01	U	4.46E+01	7.00E-02	5.00E-01		4.20E-01	7.00E-02	5.00E-01	J
Zinc	2.39E+03	17 / 18	3.84E+02	2.30E+00	5.00E+01		1.13E+03	1.20E+01	2.50E+02		1.71E+03	1.20E+01	2.50E+02	

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-20				MWQ-21				MWQ-22			
DATE COLLECTED			January 22, 2009				January 23, 2009				January 23, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
WET CHEMISTRY PARAMETERS (µg/L)														
Alkalinity	7.85E+05	18 / 18	6.48E+04	8.52E+02	2.00E+03		3.06E+05	8.52E+02	2.00E+03		9.98E+04	8.52E+02	2.00E+03	
Ammonia	8.91E+04	16 / 18	5.83E+02	2.44E+02	5.00E+02		3.84E+02	2.44E+02	5.00E+02	J	3.54E+02	2.44E+02	5.00E+02	J
Hexavalent Chromium	8.20E-01	1 / 18	<	6.00E+00	2.00E+01	U	<	9.00E-02	5.00E-01	UJ	<	9.00E-02	5.00E-01	UJ
Nitrate-Nitrite	9.65E+03	16 / 18	1.10E+02	2.80E+01	5.00E+02	J	1.86E+03	2.80E+01	5.00E+02		8.73E+01	2.80E+01	5.00E+02	J
Phosphorus, Total Orthophosphate	1.91E+03	1 / 17	<	2.15E+03	1.00E+04	U	<	2.15E+02	1.00E+03	U	<	4.30E+02	2.00E+03	U
Total Dissolved Solids	1.21E+07	18 / 18	1.21E+07	8.80E+04	2.00E+05		1.51E+06	8.80E+03	2.00E+04		1.85E+06	8.80E+03	2.00E+04	
Total Organic Carbon	9.84E+04	16 / 18	<	7.00E+01	5.00E+02	UJ	2.20E+03	7.00E+01	5.00E+02		2.60E+03	7.00E+01	5.00E+02	

Notes:

* There is no result for Phosphorus (Total Orthophosphate) due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in the original sample.

< = Less than Reporting Limit

µg/L = microgram per Liter

ID = Identification

J = Estimated

MDL = Method Detection Limit

MWL = Melrose Air Force Range Water Level Well

MWQ = Melrose Air Force Range Water Quality Well

NR = No result

Qual = Qualifier

RL = Reporting Limit

U = Nondetect

UJ = Estimated Nondetect

TABLE 4-10
COMPARISON OF GROUNDWATER QUALITY WELL NETWORK MONITORING WELL MAXIMUM GROUNDWATER CONCENTRATIONS TO GROUNDWATER SCREENING LEVELS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Chemical	Maximum Detected Concentration (µg/L)	Qual	Groundwater Screening Level (µg/L)	Groundwater Screening Level Source	Exceeds Groundwater Screening Level?
DISSOLVED METALS by 6010B (µg/L)					
Calcium	6.28E+05		N/A	N/A	N/A
Magnesium	3.62E+05		N/A	N/A	N/A
Potassium	3.84E+04		N/A	N/A	N/A
Sodium	3.36E+06		N/A	N/A	N/A
DISSOLVED METALS by 6020A (µg/L)					
Antimony	2.00E+00	J	1.50E+01	RSLs	NO
Arsenic	1.23E+01		1.00E+02	WQCC	NO
Barium	1.53E+02		1.00E+03	WQCC	NO
Beryllium	5.10E-02	J	7.30E+01	WQCC	NO
Cadmium	4.80E+00		1.00E+01	WQCC	NO
Chromium	3.36E+01		5.00E+01	WQCC	NO
Chromium III	2.60E+00		5.00E+01	WQCC	NO
Cobalt	2.40E+00		5.00E+01	WQCC	NO
Copper	6.40E+00		1.00E+03	WQCC	NO
Lead	3.10E+00	J	5.00E+01	WQCC	NO
Manganese	8.86E+02		2.00E+02	WQCC	YES
Mercury	1.50E-01	J	2.00E+00	WQCC	NO
Molybdenum	5.79E+01		1.00E+03	WQCC	NO
Selenium	4.57E+01		5.00E+01	WQCC	NO
Silver	7.80E-02	J	5.00E+01	WQCC	NO
Vanadium	7.49E+01		1.80E+02	RSLs	NO
Zinc	2.39E+03		1.00E+04	WQCC	NO
WET CHEMISTRY PARAMETERS (µg/L)					
Alkalinity	7.85E+05		N/A	N/A	N/A
Ammonia	8.91E+04		N/A	N/A	N/A
Hexavalent Chromium	8.20E-01		N/A	N/A	N/A
Nitrate-Nitrite	9.65E+03		1.00E+01	WQCC	YES
Phosphorus, Total Orthophosphate	1.91E+03		N/A	N/A	N/A
Total Dissolved Solids	1.21E+07		1.00E+03	WQCC	YES
Total Organic Carbon	9.84E+04		N/A	N/A	N/A

Notes:
µg/L = microgram per Liter
J = Estimated
N/A = Not available
Qual = Qualifier
RSLs = Tap Water Regional Screening Levels for Chemical Contaminants at Superfund Sites (USEPA 2008)
WQCC = Water Quality Control Commission. New Mexico Administrative Code (NMAC). Title 20 Environmental Protection, Chapter 6 Water Quality, Part 2 Ground and Surface Water Protection, Section 20.6.2.3103 Subsections A, B, & C

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TABLE 4-11
FIELD WATER QUALITY PARAMETERS
SWMU/AOC MONITORING WELL LOCATIONS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Well Number	Sample Date	pH	Temperature (°C)	Specific Conductance (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
M114MW001	1/26/2009	7.80	16.19	13.910	0.37	24.3	5.20
M114MW002	1/26/2009	7.80	15.29	13.350	0.40	27.1	33.00
M114MW003	1/27/2009	7.92	16.44	14.130	2.57	165.3	13.00
M114MW003*	1/28/2009	7.92	15.14	14.200	2.48	165.9	16.00
M114MW004	1/26/2009	7.70	12.15	13.830	0.43	17.9	5.00
M117MW002	1/30/2009	7.70	16.60	5.574	4.57	164.8	3.10
MAO1MW001	1/29/2009	7.81	17.03	3.561	4.56	229.0	14.00
MAO1MW002	1/28/2009	7.99	17.60	3.082	2.46	117.8	3.10
MAO1MW003	1/29/2009	7.81	17.67	3.124	4.06	205.1	8.80
MAO1MW004	1/27/2009	7.87	17.06	1.966	6.49	141.6	6.00
MAO1MW004*	1/28/2009	7.88	17.51	1.963	6.01	105.0	4.40
MAO2MW001D	1/30/2009	7.72	16.52	10.510	0.35	154.1	6.10
MAO2MW001D*	2/3/2009	7.81	13.83	10.540	0.41	-27.4	7.90

Notes:

Field water quality parameters for all wells were measured using a YSI 556 MPS equipped with a flow-through cell with the exception of turbidity.

Turbidity was measured using a LaMotte turbidity meter (20/20).

*Field water quality parameters for wells were measured additionally during resampling.

°C = degrees Celsius

AOC = Area of Concern

DO = Dissolved Oxygen

mg/L = milligrams per liter

mS/cm = millisiemens per centimeter

mV = millivolts

MW = Monitoring Well

NTU = Nephelometric Turbidity Units

ORP = Oxidation/Reduction Potential

SWMU = Solid Waste Management Unit

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TABLE 4-12
FIELD WATER QUALITY PARAMETERS
GROUNDWATER QUALITY WELL NETWORK MONITORING WELL LOCATIONS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Well Number	Sample Date	pH	Temperature (°C)	Specific Conductance (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
MWQ-2	1/21/2009	7.65	20.30	11.670	0.31	-68.1	9.10
MWQ-3	1/21/2009	7.86	20.10	0.807	5.18	109.9	0.25
MWQ-4	2/2/2009	7.62	15.95	0.580	7.05	-39.6	5.90
MWQ-5	1/23/2009	7.64	17.96	0.665	6.29	127.4	1.80
MWQ-6	1/20/2009	7.72	18.18	0.576	5.23	71.9	0.18
MWQ-7	1/20/2009	7.67	18.96	0.764	6.18	43.6	0.15
MWQ-10	1/20/2009	7.31	19.69	0.631	5.69	61.1	0.25
MWQ-14	1/29/2009	7.73	14.69	3.890	2.81	215.4	4.40
MWQ-18	1/22/2009	7.67	18.85	0.618	4.84	151.7	7.50
MWQ-19	1/22/2009	7.14	19.01	7.459	0.26	-77.9	3.20
MWQ-20	1/22/2009	7.63	18.60	18.000	0.34	-58.1	2.60
MWQ-21	1/23/2009	7.14	17.80	1.991	3.41	138.0	27.00
MWQ-22	1/23/2009	7.85	19.28	3.431	0.53	-83.4	28.00
MWL-4	1/30/2009	7.32	16.13	0.753	0.13	-187.1	17.00
MWL-4*	2/2/2009	7.49	17.61	0.741	0.15	-190.1	30.00
MWL-5	2/2/2009	7.37	16.80	1.097	0.19	-296.3	14.00
MWL-6	2/2/2009	8.96	14.42	0.566	1.16	-19.1	8.50
MWL-7	2/2/2009	7.91	15.69	1.204	0.15	-195.8	5.5
MWL-9	1/22/2009	7.52	16.71	0.636	2.89	87.0	3.9

Notes:

Field water quality parameters for all wells were measured using a YSI 556 MPS equipped with a flow-through cell with the exception of turbidity.

Turbidity was measured using a LaMotte turbidity meter (20/20).

*Field water quality parameters for wells were measured additionally during resampling.

°C = degrees Celsius

DO = Dissolved Oxygen

mg/L = milligrams per liter

mS/cm = millisiemens per centimeter

mV = millivolts

MWL = Melrose Air Force Range Water Level Well

MWQ = Melrose Air Force Range Water Quality Well

NTU = Nephelometric Turbidity Units

ORP = Oxidation/Reduction Potential

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TABLE 4-13
FIELD WATER QUALITY PARAMETER RANGES FOR SWMU/AOC GROUNDWATER SAMPLES
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Water Quality Parameters (Units)	Measurement Range
ORP (mV)	-27.4 to 229.0
Dissolved Oxygen (mg/L)	0.35 to 6.49
pH	7.70 to 7.99
Specific Conductance (mS/cm)	1.963 to 14.200
Temperature (°C)	12.15 to 17.67
Turbidity (NTU)	3.10 to 33.00

Notes:
°C = degrees Celsius
mg/L = milligrams per liter
mS/cm = millisiemens per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Units
ORP = Oxidation/Reduction Potential

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TABLE 4-14
FIELD WATER QUALITY PARAMETER RANGES FOR GROUNDWATER QUALITY WELL NETWORK GROUNDWATER SAMPLES JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Water Quality Parameters (Units)	Measurement Range
ORP (mV)	-296.3 to 215.4
Dissolved Oxygen (mg/L)	0.13 to 7.05
pH	7.14 to 8.96
Specific Conductance (mS/cm)	0.566 to 18.000
Temperature (°C)	14.42 to 20.30
Turbidity (NTU)	0.15 to 30

Notes:
°C = degrees Celsius
mg/L = milligrams per liter
mS/cm = millisiemens per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Units
ORP = Oxidation/Reduction Potential

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5.1 SUMMARY OF FINDINGS FOR INITIAL BASELINE GROUNDWATER MONITORING

This section provides a summary of findings based on a review of available historical data, January 2009 site reconnaissance, and the results of the January/February 2009 Initial Baseline Groundwater Monitoring event. All available historical data is presented in **Appendix D**, a complete summary of the monitoring well inspection results is presented in **Appendix B**, and all January/February 2009 sampling data is presented in **Section 4** and **Appendix D**.

5.1.1 SWMU 114 Findings

The following observations were made for SWMU 114 at Melrose AFR:

- Data collected from four monitoring wells during the 1995 RFI and the 2000 supplemental investigation indicated that aluminum, iron, manganese, chloride, and sulfate concentrations exceeded WQCC groundwater screening levels.

- Site reconnaissance completed in January 2009 confirmed that four monitoring wells exist at SWMU 114. All four monitoring wells produced adequate groundwater for sampling purposes. Multiple burial pit locations were identified upgradient of the four monitoring wells at SWMU 114 and one, unfilled burial trench was observed east of the monitoring wells. It was unconfirmed if the burial trench contained any remnants of historical dumping; however, multiple discarded metal fragments were observed in the trench and additionally identified on the ground surface throughout SWMU 114.

- Data collected during the January/February 2009 sampling event indicated that selenium, chloride, fluoride, and sulfate concentrations were the only parameters that exceeded WQCC groundwater screening levels. Of the four monitoring wells located at SWMU 114, three wells exceeded screening criteria for selenium (M114MW001 MW114MW002, MW114MW003), all four wells exceeded screening criteria for chloride and sulfate, and one well exceeded screening criteria for fluoride (M114MW002).

5.1.2 SWMU 115 Findings

The following observations were made for SWMU 115 at Melrose AFR:

- Data collected during the 1995 RFI indicated that aluminum, barium, cadmium, chromium, cobalt, iron, manganese, and nickel concentrations exceeded WQCC groundwater screening levels. Groundwater samples were collected from four boreholes and monitoring wells were not installed at SWMU 115 during the RFI.

- Site reconnaissance completed in January 2009 confirmed that monitoring wells do not exist at SWMU 115. However, Groundwater Quality Well Network monitoring well MWQ-14 is located approximately 0.75 miles downgradient of SWMU 115. The general

area at SWMU 115 consisted of native grasses with no identification of significant discarded refuse or dumping.

5.1.3 SWMU 117 Findings

The following observations were made for SWMU 117 at Melrose AFR:

- Monitoring wells were installed at SWMU 117; however, groundwater was not encountered in these wells during the 1995 RFI or the 2000 supplemental investigation. Historical sampling results were not available.

- Site reconnaissance completed in January 2009 confirmed that four monitoring wells exist at SWMU 117. Three wells contained trace amounts of water at an approximate elevation of 4313 feet msl and only one of the four wells (M117MW002) had adequate groundwater for sampling purposes. A groundwater sample was collected from monitoring well M117MW002 located at SWMU 117; however, it was later determined from historical water measurements and the groundwater elevation in the area adjacent to SWMU 117 (AOC 2 well MAO2MW001D) that the actual water table in this area was approximately 4250 feet msl. Therefore, none of the water identified in SWMU 117 wells were representative of the aquifer. The general area at SWMU 117 consisted of native grasses with no identification of significant discarded refuse or dumping.

- Data collected during the January/February 2009 sampling event indicated that selenium, chloride, fluoride, and sulfate concentrations were the only parameters that exceeded WQCC groundwater screening levels.

5.1.4 AOC 1 Findings

The following observations were made for AOC 1 at Melrose AFR:

- Data collected from four monitoring wells during the 1995 RFI and the 2000 supplemental investigation indicated that aluminum, chromium, iron, chloride, sulfate, and manganese concentrations exceeded WQCC groundwater screening levels.

- Site reconnaissance completed in January 2009 confirmed that four monitoring wells exist at AOC 1. All four wells produced adequate groundwater for sampling purposes. Metal fragments and refuse were observed on the ground surface throughout AOC 1.

- Data collected during the January/February 2009 sampling event indicated that chloride, fluoride, and sulfate concentrations were the only parameters that exceeded the WQCC groundwater screening levels. Of the four wells located at AOC 1, all four wells exceeded screening criteria for chloride and fluoride, and one well exceeded screening criteria for sulfate (MA01MW001).

5.1.5 AOC 2 Findings

The following observations were made for AOC 2 at Melrose AFR:

- Data collected from one monitoring well during the 1995 RFI and the 2000 supplemental investigation indicated that aluminum, iron, selenium, manganese, chloride, and sulfate concentrations exceeded WQCC groundwater standards.

- Site reconnaissance completed in January 2009 confirmed that two monitoring wells exist at AOC 2. Only one of two monitoring wells produced adequate groundwater for sampling purposes. A groundwater sample was collected from monitoring well MA02MW001D located at AOC 2. The general area at AOC 2 consisted of native grasses with no identification of burial pits or burning sites.

- Data collected during the January/February 2009 sampling event indicated that vinyl chloride, selenium, chloride, fluoride, and sulfate concentrations were the only parameters that exceeded WQCC groundwater screening levels.

5.1.6 AOC 3 Findings

The following observations were made for AOC 3 at Melrose AFR:

- One monitoring well was installed at AOC 3; however, groundwater was not encountered during the 1995 RFI or the 2000 supplemental investigation. Historical sampling results were not available.

- Site reconnaissance completed in January 2009 confirmed that one monitoring well exists at AOC 3. This well did not produce adequate groundwater for sampling purposes. The general area at AOC 3 consisted of native grasses with no identification of burial pits or burning sites.

5.1.7 AOC 4 Findings

The following observations were made for AOC 4 at Melrose AFR:

- Data collected during the 1995 RFI indicated that aluminum, barium, cadmium, chromium, iron, manganese, nickel, chloride, and sulfate concentrations exceeded WQCC groundwater standards. Groundwater samples were collected from three boreholes, but monitoring wells were not installed at AOC 4 during the RFI.

- Site reconnaissance completed in January 2009 confirmed that monitoring wells do not exist at AOC 4. The general area at AOC 4 consisted of native grasses with no identification of burial or landfill pits but metal fragments were observed on the ground surface.

5.1.8 Groundwater Quality Well Network Findings

The following observations were made for the Groundwater Quality Well Network at Melrose AFR:

- Three SWMU/AOC monitoring wells were included in the USGS Groundwater Quality Well Network. These monitoring wells were located at SWMU 114, AOC 1, and AOC 2. Monitoring well MWQ-15 was used as a duplicate well identifier for MA02MW001D, as MWQ-16 was for M114MW004, and MWQ-17 was for MA01MW003.

- The Groundwater Hydrology and Water Quality of the Southern High Plains Aquifer Report presented a summary of data collected from the Groundwater Quality Well Network in 2002 and 2003 (LGF 2004). This report presented groundwater monitoring data as a median concentration for each well; therefore, this data could not be fully evaluated and compared to WQCC screening levels. However, this report did conclude that no significant concentrations of pesticides, explosives, VOCs, SVOCs, total organic halogens, or perchlorate were detected across Melrose AFR. It should be noted that the three SWMU/AOC monitoring wells with duplicate well identifications (MWQ-15, MWQ-16, and MWQ-17) were sampled as a part of the Groundwater Quality Well Network in 2002 and 2003.

- Groundwater Quality Well Network monitoring data collected in 2005 and 2007 indicated that manganese, total dissolved solids, and nitrate plus nitrite concentrations were the only parameters that exceeded WQCC groundwater screening levels. Most of these exceedances were from monitoring wells screened in the confined Chinle aquifer. It should be noted that two of the three SWMU/AOC monitoring wells with duplicate well identifications (MWQ-15 and MWQ-16) were sampled as a part of the Groundwater Quality Well Network in 2005 and in 2007.

- Site reconnaissance completed in January 2009 confirmed that the Groundwater Quality Well Network consists of 24 wells. Eighteen of 24 wells were accessible and produced adequate groundwater for sampling purposes. The Groundwater Quality Well Network includes wells without dedicated pumps, wells with electrical dedicated pumps, a well with a solar powered dedicated pump, and inactive windmill wells.

- Data collected during the January/February 2009 sampling event indicated that manganese and total dissolved solids concentrations were the only parameters that exceeded WQCC groundwater screening levels. Of the 18 wells within the Groundwater Quality Well Network that were sampled, five wells exceeded screening criteria for manganese and six wells exceeded screening criteria for total dissolved solids. Sampling results were consistent with previous sampling events.

5.2 SWMU/AOC CONCLUSIONS

Foster-Wheeler concluded that the elevated concentrations of metals, chloride, and sulfate in groundwater at the SWMUs and AOCs were likely a result of highly turbid groundwater samples (FW 2003). High turbidity in groundwater samples can impact metals results; however, turbidity is unlikely to have caused elevated concentrations of chloride and sulfate. Groundwater in the Southern High Plains aquifer typically contains high concentrations of calcium, magnesium, bicarbonate, and potentially objectionable concentrations of chloride and fluoride for domestic

use (Hart and McAda 1985). The elevated concentrations of chloride, fluoride, and sulfate detected at the SWMUs and AOCs during previous sampling events and during the January/February 2009 sampling event are likely attributed to high background levels in this region.

Elevated selenium concentrations were previously detected in the southern portion of the Melrose AFR and in most of the wells located at the SWMUs and AOCs (LGF 2004). During the 2007 sampling event, selenium concentrations exceeded WQCC screening levels at AOC 2. During the January/February 2009 sampling event selenium concentrations were found to exceed WQCC screening levels at SWMU 114, 117, and AOC 2. Monitoring well MWQ-14, a Groundwater Quality Well Network monitoring well located downgradient of SWMU 115, had a selenium concentration of 4.57E+01 µg/L which was close to the WQCC screening level of 5.00E+01 µg/L. Selenium is a naturally occurring element in New Mexico's subsurface; therefore, it is likely that the elevated selenium concentrations in this area are naturally occurring in the groundwater. However, additional groundwater monitoring data is required to fully evaluate these sites.

One vinyl chloride detection at AOC 2 of 1.10E+00 µg/L was slightly above WQCC screening criteria of 1.00E+00 µg/L; however, it did not exceed the maximum contaminant level (MCL) of 2.00E+00 µg/L. Additional groundwater monitoring data are required to evaluate this site.

Several SWMU/AOC wells were in need of padlocks, soil erosion protection near the well, and maintenance (re-development, cap replacements, bollard replacement etc). Several monitoring wells were installed during previous investigations and never sampled due to inadequate groundwater at the screen elevation. Recommendations for SWMU/AOC wells are presented in **Section 6**.

5.3 GROUNDWATER QUALITY WELL NETWORK CONCLUSIONS

The elevated concentrations of manganese, total dissolved solids, and nitrate plus nitrite detected during previous sampling events and during the January/February 2009 sampling event are likely attributable to high background levels in this region. High concentrations of manganese and total dissolved solids were common in the confined Chinle aquifer.

Several Groundwater Quality Well Network monitoring wells were in need of proper identification, padlocks, cap replacements, soil erosion protection near the well, and maintenance (re-development, bollard replacement, protective casing, etc.). Additionally, several wells were not sampled because pump parts obstructed access to the wells or dry well conditions. Recommendations for Groundwater Quality Well Network monitoring wells are presented in **Section 6**.

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6.1 GROUNDWATER MONITORING PROGRAM RECOMMENDATIONS

The following recommendations were based on future land use of Melrose AFR (i.e., active range), historical groundwater sampling results, January 2009 site reconnaissance, and the January/February 2009 groundwater sampling results.

6.2 SWMU/AOC GROUNDWATER MONITORING PROGRAM

SWMU/AOC monitoring wells are scheduled to be sampled on an annual basis. Low-flow sampling procedures should be used to keep sample turbidity at a minimum. Passive diffusion sampling devices may also be a feasible option at Melrose AFR, pending the outcome of the Demonstration/Validation of the Snap Sampler Passive Groundwater Sampling Device conducted by USACE Engineer Research and Development Center.

Based on historical data it is recommended to sample the following SWMU/AOC monitoring wells for major ions (calcium magnesium potassium, sodium by Method 6010B, alkalinity by Method 310.1, chloride and sulfate by Method 9056), TDS by Method 160.1, RCRA metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag) by EPA Method 6010B/7470A, explosives by Method 8330, and VOCs by Method 8260B.

Recommended SWMU/AOC Monitoring Wells for Annual Sampling:

- M114MW001
- M114MW002
- M114MW003
- M114MW004
- MAO1MW001
- MAO1MW002
- MAO1MW003
- MAO1MW004
- MAO2MW001D

6.2.1 SWMU/AOC Monitoring Well Maintenance Recommendations

The following recommendations are for wells that are expected to remain in the annual sampling program and were developed to help obtain quality groundwater samples and ensure aquifer protection in accordance with 19.27.4.29 New Mexico Administrative Code (NMAC) (NMAC 2009). The following recommendations were based on the site reconnaissance conducted in January 2009. Photo log and well inspection summary tables are presented in **Appendix B.**

- Redevelopment of all wells for future sampling at SWMU 114, AOC 1, and AOC 2. Monitoring wells showed signs of significant silt build up at bottoms of wells making DTB measurements difficult.

- Repair three bollards at MAO1MW004 and repair severe erosion underneath well pad and surrounding bollards.

- Repair minor erosion surrounding well pads and bollards at MA01MW001, MA01MW002, and MA01MW003.

- Replace (or re-vent, if possible) well casing caps (slip or J-plug) for all wells except for MAO2MW001D.

Maintenance for the following monitoring wells was completed during the January/February 2009 event:

- MAO2MW001S did not have a locking lid for the protective casing during well inspection on January 14, 2009. A replacement lid was added to MAO2MW001S on February 3, 2009.

- New locks were installed at all SWMU/AOC wells, except MAO3MW001 (flush mount) on February 3, 2009. No additional locks will be needed for SWMU/AOC monitoring wells.

6.2.2 SWMU/AOC Monitoring Well Abandonment and Well Installation Recommendations

During the 1995 RFI, monitoring wells were not installed at SWMU 115 and AOC 4 because of the potential for damage to the wells due to range activities. If Melrose AFR determines that a high probability exists for current monitoring wells to be damaged due to range activities it is recommended that these wells be abandoned.

Additionally, it is recommended to abandon wells that have never been sampled due to either being dry or not producing groundwater that is representative of the aquifer (i.e., screen intervals were installed above the water table). The following wells are recommended to be removed from the groundwater sampling program and abandoned in accordance with the State of New Mexico Regulations.

Recommended for Abandonment:

- M117MW001
- M117MW003
- MAO2MW001S
- M117MW002
- M117MW004
- MAO3MW001

It is recommended to install a background monitoring well upgradient of the SWMUs and AOCs. This background monitoring well should be screened at the same elevation as wells located at the SWMUs/AOCs. Additionally, monitoring well installations should be considered in areas downgradient of any new target areas as determined by Melrose AFR.

6.3 GROUNDWATER QUALITY WELL NETWORK GROUNDWATER MONITORING PROGRAM

Groundwater Quality Well Network monitoring wells are scheduled to be sampled on an annual basis. Low-flow sampling procedures should be used to keep sample turbidity at a minimum. Passive diffusion sampling devices may also be a feasible option at Melrose AFR.

Based on historical data, and the latest USGS sampling strategy (2007) at Melrose AFR, it is recommended to sample the following network monitoring wells for major ions (calcium magnesium potassium, sodium by Method 6010B, alkalinity by Method 310.1, chloride and sulfate by Method 9056), TDS by Method 160.1, RCRA metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag) by EPA Method 6010B/7470A, explosives by Method 8330, and VOCs by Method 8260B.

Recommended Groundwater Quality Well Network Monitoring Wells for Annual Sampling:

- MWL-6
- MWQ-2
- MWQ-3
- MWQ-4
- MWQ-5
- MWQ-6
- MWQ-7
- MWQ-8
- MWQ-10
- MWQ-14
- MWQ-18
- MWQ-20
- MWQ-21
- MWQ-22

The installation of a groundwater telemetry system is also recommended for the 14 Groundwater Quality Well Network monitoring wells. This real-time groundwater monitoring system would provide water table elevations, conductivity, and temperature data. Real-time data collection will provide information on seasonal groundwater fluctuations and recharge rates. This information will be useful for aquifer sustainability studies.

6.3.1 Groundwater Quality Well Network Monitoring Well Maintenance Recommendations

The following recommendations are for wells that are expected to remain in the annual sampling program and were developed to help obtain quality groundwater samples and ensure aquifer protection in accordance with 19.27.4.29 NMAC. Recommendations listed below were based on the site reconnaissance conducted in January 2009. Photo log and well inspection summary tables are presented in **Appendix B.**

- Redevelopment of all Groundwater Quality Well Network monitoring wells for future sampling. Monitoring wells showed signs of significant silt build up at bottoms of wells making DTB measurements difficult.

- Add bollards in ground at MWQ-3, MWQ-4, MWQ-5, MWQ-6, MWQ-7, MWQ-8, MWQ-10, MWQ-21/22, and MWL-6. Repair bollard placement in ground at MWQ-18/19 and MWQ-20 and repair minor erosion surrounding bollards.

- Add well pads at MWQ-3, MWQ-4, MWQ-5, MWQ-6, MWQ-7, and MWQ-10. Repair and/or replace well pad at MWQ-8.

- Repair minor erosion underneath well pads at MWQ-18/19, MWQ-20, and MWQ-21/22 and repair severe erosion underneath well pads at MWQ-8 and MWL-6.

- Add vented well casing cap at MWQ-8 and MWL-6.

The following recommendations are made for existing wells that are not expected to remain in sampling program but would need to be completed to ensure aquifer protection in accordance with 19.27.4.29 NMAC.

- Add well pads, protective bollard posts, and vented well casing caps at MWL-4, MWL-5, and MWL-9. Repair well pad and add protective bollards at MWL-7. Add well pad and additional protective bollards at MWQ-1.

Maintenance for the following monitoring wells was completed during the January/February 2009 event:

- At MWQ-18/19, MWQ-20, and MWQ-21/22 the locking lids for the protective casings were broken during well inspection on January 14, 2009. Replacement lids were added to MWQ-18/19, MWQ-20, and MWQ-21/22 on February 3, 2009.

- New locks were installed at MWQ-1, MWQ-2, MWQ-14, MWQ-18/19, MWQ-20, and MWQ-21/22 wells on February 3, 2009. All remaining Groundwater Quality Well Network monitoring wells did not have locking lids. No additional locks will be needed for quality well network monitoring wells.

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APPENDIX A

Well Inspection Forms, Sample Collection Field Sheets, and Daily Quality Control Reports – January-February 2009

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APPENDIX A.1
WELL INSPECTION FORMS

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WELL INSPECTION FORM

DATE 1-14-09 TIME 1323

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID M114MW001 COMPLETED BY: Shoop

Well properly labeled? ID tag present? yes/yes

Type of well completion: Screened, stick up, 4.0" ID PVC

Number of bollards and condition: 3/good

Type of protective casing and condition: Steel ~~PVC~~ DC /good

Painted? If so condition of paint: Orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: ~~yes~~ Yes

Well cap type and condition (J-plug, slip cap): Slip cap

Is well cap vented? no

Additional comments:

DTW: 150.07 ft

DTB: 181.95 ft

WELL INSPECTION FORM

DATE 1-14-09 TIME 1333

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MW14MW002 COMPLETED BY: Shoop

Well properly labeled? ID tag present? Yes/Yes

Type of well completion: Screened, Stick up, 4.0" ID PVC

Number of bollards and condition: 3/good

Type of protective casing and condition: Steel DC ~~PVC~~ /good

Painted? If so condition of paint: orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: ~~No~~ Yes

Well cap type and condition (J-plug, slip cap): Slip cap

Is well cap vented? No

Additional comments:

DTW: 150.56 ft

DTB: 184.25 ft

WELL INSPECTION FORM

DATE 1-14-09 TIME 1343

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID M114MW003 COMPLETED BY: Sheap

Well properly labeled? ID tag present? Yes/yes

Type of well completion: Screened, Stick up, 4.0" ID PVC

Number of bollards and condition: 3 / good

Type of protective casing and condition: Steel ~~PVC~~ / good

Painted? If so condition of paint: Orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: ~~no~~ Yes

Well cap type and condition (J-plug, slip cap): Slip Cap

Is well cap vented? no

Additional comments:

DTW: 151.70 ft

DTB: 184.55 ft

WELL INSPECTION FORM

DATE 1-14-09 TIME 1311

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID M114MW004 COMPLETED BY: Shoop

Well properly labeled? ID tag present? Yes/yes

Type of well completion: Screened, Stick up, 4.0"ID PVC

Number of bollards and condition: 3/good

Type of protective casing and condition: Steel ~~PVC~~ /good

Painted? If so condition of paint: Orange

Condition of well pad: Good

Pad locked and secure? If so condition of lock: ~~no~~ yes

Well cap type and condition (J-plug, slip cap): Slip Cap

Is well cap vented? No

Additional comments:

55-gallon Poly drum purge water @ Well

Photo of Tag

DTW: 149.15 ft

DTB: 183.80 ft

WELL INSPECTION FORM

DATE 1-14-09 TIME 1438

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID M117MW001 COMPLETED BY: Shoop

Well properly labeled? ID tag present? Yes/yes

Type of well completion: Screen, stick up, 4.0" ID PVC

Number of bollards and condition: 3/good

Type of protective casing and condition: Steel ~~PVC~~ PC - good

Painted? If so condition of paint: Orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: Yes - broken

Well cap type and condition (J-plug, slip cap): Slip cap

Is well cap vented? no

Additional comments:

42.71 ft - water

43.12 ft - bottom

Insufficient water to sample

WELL INSPECTION FORM

DATE 1-14-09 TIME 1445

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID M117MW002 COMPLETED BY: Shoop

Well properly labeled? ID tag present? Yes/yes

Type of well completion: Screened, stick up, 4.0" ID PVC

Number of bollards and condition: 3/good

Type of protective casing and condition: steel ~~pvc~~ or/good

Painted? If so condition of paint: orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: Yes - broken

Well cap type and condition (J-plug, slip cap): Slip cap

Is well cap vented? no

Additional comments:

40.68 FT to water
43.05 FT to bottom

WELL INSPECTION FORM

DATE 1-14-09 TIME 1455

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID M117MW003 COMPLETED BY: Shoop

Well properly labeled? ID tag present? yes/yes

Type of well completion: Screened, stick up, 4.0" ID PVC

Number of bollards and condition: 3

Type of protective casing and condition: steel ~~pvc~~ /good

Painted? If so condition of paint: Orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: yes - broken

Well cap type and condition (J-plug, slip cap): Slip

Is well cap vented? no

Additional comments:

42.47 depth to water

42.86 depth to bottom

Insufficient water to sample

WELL INSPECTION FORM

DATE 1-14-09 TIME 1455

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID M117MW004 COMPLETED BY: Shoop

Well properly labeled? ID tag present? yes/yes

Type of well completion: Screened, Stick up, 4.0" ID PVC

Number of bollards and condition: 3/good

Type of protective casing and condition: Steel or ~~PVC~~/good

Painted? If so condition of paint: Orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: yes - broken

Well cap type and condition (J-plug, slip cap): Slip

Is well cap vented? NO

Additional comments:

43.3 depth to bottom

Dry - insufficient water to sample

WELL INSPECTION FORM

DATE 1-15-09 TIME 1033

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MA01MW001 COMPLETED BY: Sharp

Well properly labeled? ID tag present? yes/yes

Type of well completion: Screened, Stick up, 4.0" ID PVC

Number of bollards and condition: 3/good erosion around footings

Type of protective casing and condition: Steel ~~PVC~~ PC / good

Painted? If so condition of paint: orange

Condition of well pad: good erosion beneath pad

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): slip

Is well cap vented? no

Additional comments:

depth to water: 143.49 ft

depth to bottom: 162.65 ft

WELL INSPECTION FORM

DATE 1-15-09 TIME 1027

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MA01MW002 COMPLETED BY: Shoop

Well properly labeled? ID tag present? yes/yes

Type of well completion: screened, stick up, 4.0" ID PVC

Number of bollards and condition: 3 - good / erosion around footings

Type of protective casing and condition: skel ~~Dve~~ / good

Painted? If so condition of paint: DC orange

Condition of well pad: good - erosion beneath pad

Pad locked and secure? If so condition of lock: yes - broken

Well cap type and condition (J-plug, slip cap): slip cap

Is well cap vented? no

Additional comments:

Depth to water: 142.65 ft

Depth to bottom: 157.40 ft

WELL INSPECTION FORM

DATE 1-15-09 TIME 1040

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MA01MW003 COMPLETED BY: Sharp

Well properly labeled? ID tag present? Yes/yes

Type of well completion: Screened, Stick up, 4.0" ID PVC

Number of bollards and condition: 3/good

Type of protective casing and condition: Steel ~~PVC~~/good

Painted? If so condition of paint: Orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: Yes - broken

Well cap type and condition (J-plug, slip cap): Slip cap

Is well cap vented? No

Additional comments:

DTW : 144.20 ft

DTB : 161.90 ft

WELL INSPECTION FORM

DATE 1-15-09 TIME 1015

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MA01MW004 COMPLETED BY: Shoop

Well properly labeled? ID tag present? Yes / yes

Type of well completion: Screened, Stick up, 4.0" ID PVC

Number of bollards and condition: 3 / poor condition due to erosion

Type of protective casing and condition: Steel ~~pvc~~ DC / good

Painted? If so condition of paint: Orange

Condition of well pad: Earth has eroded from beneath pad

Pad locked and secure? If so condition of lock: No

Well cap type and condition (J-plug, slip cap): Slip cap

Is well cap vented? NO

Additional comments:

depth to water - 142.92 FT

depth to bottom - 162.25 FT

WELL INSPECTION FORM

DATE 1-14-09 TIME 1238

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MA02MW001D COMPLETED BY: Shoop

Well properly labeled? ID tag present? Labeled & Tagged

Type of well completion: Screened, Stick up, 4.0" ID PVC

Number of bollards and condition: 4 in good condition

Type of protective casing and condition: steel ~~PVC~~ DC in good condition

Painted? If so condition of paint: ~~no~~ Yes orange

Condition of well pad: Good

Pad locked and secure? If so condition of lock: ~~no lock~~ DC Yes

Well cap type and condition (J-plug, slip cap): Slip Cap - good

Is well cap vented? Yes

Additional comments:

Tag!
Elevation @ Top of Casing 4352.98 FT
Depth from ~~Bottom~~ Top of Casing 184.5 FT
Installed Dec 1, 1995
USACE
~~1 full barrel of water~~ DC @ well
55-gallon Poly barrel of documented purge water
DTW: 105.53 ft
DTB: 184.50 ft

WELL INSPECTION FORM

DATE 1-14-09 TIME 1244

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MA02MW001S COMPLETED BY: BHoop

Well properly labeled? ID tag present? yes/yes

Type of well completion: Screened, stick up, 4.0" ID PVC

Number of bollards and condition: 4 in good condition

Type of protective casing and condition: Steel ~~PVC~~ / good

Painted? If so condition of paint: yes orange

Condition of well pad: good

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): slip cap

Is well cap vented? no

Additional comments:

Tag:
Elevation @ Top of Casing 4353.01 FT
Depth from Top of Casing 49.9 FT
Installed Dec 1 1995

USACE

10" diameter Cap is missing
Full barrel of water @ well
DTW: Dry
DTB: 49.55 ft

WELL INSPECTION FORM

DATE 1-14-09 TIME 1420

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID ~~MOA3MW001~~ ms MA03MW001 COMPLETED BY: Shoop

Well properly labeled? ID tag present? Yes

Type of well completion: Screened, Flush mount, 4.0" PVC

Number of bollards and condition: Ø

Type of protective casing and condition: ~~Good~~ none ~~PVC~~ DC / good

Painted? If so condition of paint: white

Condition of well pad: good

Pad locked and secure? If so condition of lock: ~~no~~ Yes

Well cap type and condition (J-plug, slip cap): J-plug

Is well cap vented? No

Additional comments:

Flush mount well

1" water insufficient to sample

DTW: 42.00 ft

DTB: 42.15 ft

WELL INSPECTION FORM

DATE 1-16-09 TIME 1255

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ2 S (MWQ1) COMPLETED BY: Shoop

Well properly labeled? ID tag present? yes/no

Type of well completion: DC ~~steel riser~~ stick up, 2.0" ID PVC

Number of bollards and condition: 2 good (Sharing MWQ2 bollards)

Type of protective casing and condition: steel DC ~~PVC~~/good

Painted? If so condition of paint: Yellow

Condition of well pad: no pad

Pad locked and secure? If so condition of lock: yes - broken

Well cap type and condition (J-plug, slip cap): J-plug

Is well cap vented? no

Additional comments:

DTW: dry

DTB: 136.50 FT

Possibly identified as MWQ1.

WELL INSPECTION FORM

DATE 1-16-09 TIME 1255

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ2D COMPLETED BY: Shoop

Well properly labeled? ID tag present? yes/no

Type of well completion: DC ~~Steel riser~~ stick up, 2.8" ID PVC

Number of bollards and condition: 4 good

Type of protective casing and condition: steel ~~PVC~~/good

Painted? If so condition of paint: yellow

Condition of well pad: good

Pad locked and secure? If so condition of lock: yes - broken

Well cap type and condition (J-plug, slip cap): J-plug

Is well cap vented? no

Additional comments:

DTW: 122.05 FT

DTB: 238.52 FT

Also identified as MWQ2.

WELL INSPECTION FORM

DATE 1-14-09 TIME 1115

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ3 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no / no

Type of well completion: stick up w/ underground vault

Number of bollards and condition: 0

Type of protective casing and condition: Steel

Painted? If so condition of paint: no

Condition of well pad: good

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): Steel

Is well cap vented? unknown

Additional comments:

- dedicated submersible pump
- steel riser stick up not accessible.

WELL INSPECTION FORM

DATE 1-16-09 TIME 1137

SITE LOCATION Melrose, AFR PROJECT NUMBER 16170398

WELL ID MWQ4 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no / no

Type of well completion: DC ~~windmill~~ Solar powered pump, PVC stick up ~ 6.0" ID

Number of bollards and condition: 0

Type of protective casing and condition: DC ~~PVC - good~~ none

Painted? If so condition of paint: no

Condition of well pad: no pad

Pad locked and secure? If so condition of lock: no lock

Well cap type and condition (J-plug, slip cap): plug

Is well cap vented? no

Additional comments:

Solar powered pump - dedicated submersible

DTW: Not obtainable due to pump (parts?).

DTB: "

+/- 26.00 ft to top of pump

Vault next to ~~pump~~ well - empty

WELL INSPECTION FORM

DATE 1-16-09 TIME 0920

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ5 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no / no

Type of well completion: Stick up w/ underground vault

Number of bollards and condition: 0

Type of protective casing and condition: Steel

Painted? If so condition of paint: no

Condition of well pad: good

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): Steel

Is well cap vented? unknown

Additional comments:

- dedicated submersible pump
- steel riser stick up not accessible

WELL INSPECTION FORM

DATE 1-15-09 TIME 1303

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID ~~MWQ8~~ MWQ6 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: Steel riser, stick up w/ underground vault.

Number of bollards and condition: 0

Type of protective casing and condition: Unknown

Painted? If so condition of paint: no

Condition of well pad: good

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): unknown

Is well cap vented? no

Additional comments:

- dedicated submersible pump
- steel riser stick up not accessible.

WELL INSPECTION FORM

DATE 1-15-09 TIME 1245

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ7 COMPLETED BY: Sharp

Well properly labeled? ID tag present? no/no

Type of well completion: Steel riser, stick up w/ underground vault

Number of bollards and condition: none

Type of protective casing and condition: unknown

Painted? If so condition of paint: no

Condition of well pad: good

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): unknown

Is well cap vented? no

Additional comments:

- dedicated submersible pump
- steel riser stick up not accessible.

WELL INSPECTION FORM

DATE 1-15-09 TIME 1130

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ8 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no / no

Type of well completion: C Steel Stick up, ~ 6.0" ID

Number of bollards and condition: Ø

Type of protective casing and condition: Concrete w/ poor, deteriorating metal surrounding it.

Painted? If so condition of paint: No

Condition of well pad: poor, erosion beneath Pad

Pad locked and secure? If so condition of lock: No

Well cap type and condition (J-plug, slip cap): None

Is well cap vented? —

Additional comments:

Deteriorating riser and rusted inner casing.

* dtb/dtw ~111.20 / dry

* attempted again on 1-20-09

WELL INSPECTION FORM

DATE 1-15-09 TIME 1218

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ10 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: Steel ~~casing~~ riser, Stick up, Underground vault

Number of bollards and condition: none

Type of protective casing and condition: unknown

Painted? If so condition of paint: no

Condition of well pad: Good

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): unknown

Is well cap vented? no

Additional comments:

~~Pump next to~~ OL

- dedicated submersible pump
- steel riser stickup. Not accessible

WELL INSPECTION FORM

DATE 1-15-09 TIME 0915

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ14 COMPLETED BY: Sharp

Well properly labeled? ID tag present? No/no

Type of well completion: Screened, stick up, 4.0" ID PVC

Number of bollards and condition: 3 / good

Type of protective casing and condition: Steel double cased - wobbles (not secure)

Painted? If so condition of paint: yes - Faded

Condition of well pad: good

Pad locked and secure? If so condition of lock: yes - broken

Well cap type and condition (J-plug, slip cap): slip cap

Is well cap vented? No

Additional comments:

double cased PVC

depth to water - 65.81 ft

depth to bottom - 121.35 ft

* Inner PVC well casing moves. May be broken bgs.

WELL INSPECTION FORM

DATE 1-15-09 TIME 1500

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ 18 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no / no

Type of well completion: stick up, 2.0" ID PVC

Number of bollards and condition: 4, not in ground

Type of protective casing and condition: steel, good (same prot. casing for MWQ19)

Painted? If so condition of paint: Yellow, good

Condition of well pad: Good. Slight erosion.

Pad locked and secure? If so condition of lock: Yes, broken

Well cap type and condition (J-plug, slip cap): slip cap

Is well cap vented? no

Additional comments:

Casing lid broken. MWQ18 & MWQ19 (both 2.0" PVC) share one riser

dtw: 101.33' btoc

dtb: ~115.83 btoc

WELL INSPECTION FORM

DATE 1-15-09 TIME 1500

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ19 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no / no

Type of well completion: stickup, 2.0" ID PVC

Number of bollards and condition: 4, not in ground

Type of protective casing and condition: steel, good (same riser as MWQ18)

Painted? If so condition of paint: Yellow, good

Condition of well pad: Good. Slight erosion

Pad locked and secure? If so condition of lock: Yes, broken

Well cap type and condition (J-plug, slip cap): Slip cap

Is well cap vented? no

Additional comments:

Casing lid broken. MWQ18 & MWQ19 (both 2.0" PVC) share one riser.
dtw: 101.05' btoc
dtb: ~203.0' btoc

WELL INSPECTION FORM

DATE 1-15-09 TIME 1515

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ 20 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: Dc ~~steel~~ riser Stick up, 2.0" ID PVC

Number of bollards and condition: 4 not serviceable

Type of protective casing and condition: steel ~~pvc~~/good

Painted? If so condition of paint: Yellow

Condition of well pad: good

Pad locked and secure? If so condition of lock: ~~no~~ yes - broken

Well cap type and condition (J-plug, slip cap): J-plug

Is well cap vented? no

Additional comments:

DTW : 83.33 FT btoc

DTB : ~200.00' btoc

WELL INSPECTION FORM

DATE 1-14-09 TIME 1007

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ21 ms COMPLETED BY: Shoop

Well properly labeled? ID tag present? yes / no Tag

Type of well completion: DC ~~steel riser~~ stick up, 2.0" ID PVC

Number of bollards and condition: 0

Type of protective casing and condition: steel DC ~~PVC~~ / good (Same riser as MWQ22)

Painted? If so condition of paint: yellow - faded

Condition of well pad: good

Pad locked and secure? If so condition of lock: yes - broken

Well cap type and condition (J-plug, slip cap): J-plug

Is well cap vented? no

Additional comments:

broken riser cap / 8 3/4" riser

DTW: 44.75 FT

DTB: 61.60 FT

* MWQ21 & MWQ22 (2.0" ID PVC) both share one steel riser.

WELL INSPECTION FORM

DATE 1-16-09 TIME 1017

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWQ 22 COMPLETED BY: Shoop

Well properly labeled? ID tag present? yes/no

Type of well completion: DC ~~steel riser~~ Stick up, 2.0" ID PVC

Number of bollards and condition: 0

Type of protective casing and condition: Steel DC ~~PVC~~/good (Same riser as MWQ21)

Painted? If so condition of paint: ye/(ow) - Faded

Condition of well pad: good

Pad locked and secure? If so condition of lock: yes - broken

Well cap type and condition (J-plug, slip cap): J plug

Is well cap vented? no

Additional comments:

Broken riser cap

DTW: 41.90 FT

DTB: 153.00 FT

- MWQ21 & MWQ 22 (2.0" ID PVC) both share one steel riser.

WELL INSPECTION FORM

DATE 1-16-09 TIME 1323

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWC1 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: Windmill well, steel stick up, ~ 2.0" ID

Number of bollards and condition: 0

Type of protective casing and condition: Steel

Painted? If so condition of paint: no

Condition of well pad: poor - broken up

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): none

Is well cap vented? yes

Additional comments:

GPS taken from top of casing

DTW: 114.00 FT

DTB: ~121.00 FT to top of pump or TD

Old windmill well w/ misc. parts (sucker rod) inside well casing.

WELL INSPECTION FORM

DATE 1-16-09 TIME 1230

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MW-2 COMPLETED BY: Shoup

Well properly labeled? ID tag present? no/no

Type of well completion: windmill metal stickup ~2.0" ID

Number of bollards and condition: 0

Type of protective casing and condition: steel - good

Painted? If so condition of paint: no.

Condition of well pad: good - erosion beneath pad

Pad locked and secure? If so condition of lock: no lock

Well cap type and condition (J-plug, slip cap): no cap

Is well cap vented? or ~~yes~~ —

Additional comments:

DTW: unknown

~~DTB~~: 29.25 FT distance TO pump

Sucker rod still in well

Gps taken from top of sucker rod casing.

Old windmill well w/ misc. parts (sucker rod) inside well casing.

WELL INSPECTION FORM

DATE 1-16-09 TIME 1047

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWL 3 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: ~~Steel riser~~ stick up, pvc ~4.0" ID

Number of bollards and condition: 0

Type of protective casing and condition: ~~pvc/good~~ steel / good

Painted? If so condition of paint: no

Condition of well pad: good

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): no cap

Is well cap vented? ~~yes~~

Additional comments:

Old windmill well w/ misc. parts (sucker rod) inside casing.

DTW: 59.90 FT

DTB: ≈ 92.00 FT

Water level taken from PVC well casing

GPS taken from top of riser cap

WELL INSPECTION FORM

DATE 1-16-09 TIME 0955

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWL 4 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: Steel stick up ~ 4.0" ID

Number of bollards and condition: 0

Type of protective casing and condition: 0c ~~steel/good~~ none

Painted? If so condition of paint: no

Condition of well pad: no pad

Pad locked and secure? If so condition of lock: no lock

Well cap type and condition (J-plug, slip cap): no cap

Is well cap vented? vented

Additional comments:

DTW: 50.00 ft

DTB: 59.79 ft

WELL INSPECTION FORM

DATE 1-16-09 TIME 1120

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MW<5 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: PVC ~5.0" ID Stick up

Number of bollards and condition: 0

Type of protective casing and condition: DC ~~pvc - good~~ none

Painted? If so condition of paint: no

Condition of well pad: no pad

Pad locked and secure? If so condition of lock: no lock

Well cap type and condition (J-plug, slip cap): no cap

Is well cap vented? DC ~~vented~~

Additional comments:

5" inner diameter

DTW: 12.21 ft

DTB: 35.00 FT

WELL INSPECTION FORM

DATE 1-16-09 TIME 0840

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWL6 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: DC ~~steel~~ stick up, ~6.0" ID steel

Number of bollards and condition: 0. Concrete posts from windmill still present (4).

Type of protective casing and condition: DC ~~Steel~~ none

Painted? If so condition of paint: no

Condition of well pad: good - erosion beneath pad

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): no cap

Is well cap vented? yes

Additional comments:

no cap present - old wind mill. no parts in well.

DTW: 118.42 FT

DTB: 135.00 FT

WELL INSPECTION FORM

DATE 1-16-09 TIME 0857

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWL7 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: DC ~~Steel Riser~~ stick up, ~6.0" ID steel

Number of bollards and condition: 0

Type of protective casing and condition: DC ~~Steel - good~~ none

Painted? If so condition of paint: no.

Condition of well pad: poor - eroded

Pad locked and secure? If so condition of lock: no

Well cap type and condition (J-plug, slip cap): Slip cap (man made)

Is well cap vented? yes

Additional comments:

DTW: 74.75 ft

DTB: 108.90 ft

WELL INSPECTION FORM

DATE 1-15-09 TIME 1318

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MWL8 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no / no

Type of well completion: steel ~ 6.0" ID stick up.

Number of bollards and condition: none

Type of protective casing and condition: steel

Painted? If so condition of paint: no

Condition of well pad: no pad

Pad locked and secure? If so condition of lock: none

Well cap type and condition (J-plug, slip cap): none

Is well cap vented? –

Additional comments:

dtw: 73.88' btoc
dtb: ~113.' btoc

Old windmill well with misc. parts (sucker rod) inside well casing

WELL INSPECTION FORM

DATE 1-15-09 TIME 1417

SITE LOCATION Melrose AFR PROJECT NUMBER 16170398

WELL ID MW-9 COMPLETED BY: Shoop

Well properly labeled? ID tag present? no/no

Type of well completion: DC ~~Steel~~ ~~none~~ steel, stick up, ~ 5.5" ID

Number of bollards and condition: none

Type of protective casing and condition: ~~Steel / Fair~~ none

Painted? If so condition of paint: no

Condition of well pad: ~~none~~ poor - major erosion beneath pad

Pad locked and secure? If so condition of lock: none

Well cap type and condition (J-plug, slip cap): none

Is well cap vented? DC ~~yes~~

Additional comments:

DTW: 44.70 FT

DTB: 49.93 FT

- rusted

APPENDIX A.2
SAMPLE COLLECTION FIELD SHEETS

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WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: ~~M114W~~ M114MW001 — WELL NO.: M114MW001

DATE/TIME COLLECTED: 1-26-09 / 1225 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 ~~250 mL~~ HDPE 500 mL	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~ DC
~~1 - 500 mL HDPE~~	~~4°C~~	~~TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)~~

WELL PURGING DATA

Date	1-26-09	Well Depth (ft BTOC)	181.95
Time Started	1150	Depth to Water (ft BTOC)	150.10
Time Completed	1225	Water Column Length	31.85
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	78.67
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	7

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1150	0	7.66	13.45	13.31	2.64	72.4	21.0	150.43	.200
1155	1	7.80	15.21	13.67	0.75	64.5	16.0	150.70	↓
1200	2	7.80	15.50	13.80	0.58	56.4	15.0	150.91	↓
1205	3	7.80	15.96	13.87	0.48	48.7	14.0	150.99	↓
1210	4	7.79	16.12	13.90	0.44	48.7	11.0	151.06	↓
1215	5	7.81	16.25	13.91	0.40	33.8	8.4	151.18	↓
1220	6	7.80	16.24	13.91	0.38	26.9	6.6	151.42	↓
1225	7	7.80	16.19	13.91	0.37	24.3	5.2	151.95	✓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	Twice Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	Twice Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	Twice Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 181'

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = unk

* bladder pump controller w/ 4.0 HP gas compress. Refill/Discharge time = 10/35 sec @ 140 psi (max)

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: ~~M14001W~~ DC M114MW002 — WELL NO.: M114MW002

DATE/TIME COLLECTED: 1-26-09 1455 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)
~~2 - 500 mL HDPE~~	~~4°C~~	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	~~TDS (160.1),~~ Hexavalent Chromium (7196A)*, Alkalinity (310.2)
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite (353.2)~~

DC

WELL PURGING DATA

Date	1-26-09	Well Depth (ft BTOC)	~~DS~~ 184.25
Time Started	1420	Depth to Water (ft BTOC)	150.37
Time Completed	1455	Water Column Length	33.88
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	83.68
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	8.75

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1420	0	7.91	14.46	13.49	0.69	69.0	380	151.1	.250
1425	1.25	7.82	15.01	13.52	0.48	64.8	141	151.7	↓
1430	2.5	7.81	15.11	13.62	0.39	56.4	81	152.43	↓
1435	3.75	7.80	15.30	13.56	0.38	44.4	61	152.71	↓
1440	5	7.87	15.46	13.49	0.36	35.9	42	152.84	↓
1445	6.25	7.82	15.44	13.39	0.39	29.1	38	153.10	↓
1450	7.5	7.81	15.44	13.36	0.40	28.0	35	153.26	↓
1455	8.75	7.80	15.29	13.35	0.40	27.1	33	153.50	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	Twice Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	Twice Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	Twice Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' from bottom ~ 183' btoc

Pump Rate = 250 L/min

Well Diameter = 4"

Screen Interval = unk

* bladder pump controller w/ 4.0 HP Gas Comp. Refill/Discharge rate = 8 / 20 sec @ 140 PSI (max)

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: M114MW003 — WELL NO.: M114MW003

DATE/TIME COLLECTED: 1-27-09 1010 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO (NO circled) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO (NO circled) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)~~

WELL PURGING DATA

Date	1-27-09	Well Depth (ft BTOC)	184.55
Time Started	0935	Depth to Water (ft BTOC)	151.71
Time Completed	1010	Water Column Length	32.84
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	81.11
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	8.75

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0935	0	7.36	12.85	12.95	3.83	219.7	40	151.93	.250
0940	1.25	7.73	14.34	13.61	3.04	202.0	29	152.31	
0945	2.5	7.83	14.62	13.85	2.86	191.7	23	152.70	
0950	3.75	7.87	14.94	14.00	2.72	181.8	22	153.07	
0955	5	7.88	15.11	14.05	2.71	178.1	21	153.20	
1000	6.25	7.91	15.39	14.10	2.63	172.0	17	153.41	
1005	7.5	7.92	16.19	14.11	2.59	168.0	15	153.96	
1010	8.75	7.92	16.44	14.13	2.57	165.3	13	154.13	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 183.

Pump Rate = .250 L/min

Well Diameter = 4"

Screen Interval = unk

* bladder pump controller w/ 4.0HP gas compress., Refill/Discharge rate = 10/20 sec @ 120 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: M114MW003 — WELL NO.: M114MW003

DATE/TIME COLLECTED: 1-28-09* 1000 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES / NO — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES / NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES / NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

	Sample Container	Preservative	Analysis Requested
DC	~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
DC	~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
DC	~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
	1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
DC	~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
DC	~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
DC	~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC	~~2 - 500 mL HDPE~~	~~4°C~~	Metals (6010B, 6020A)*
	1 - 500 mL HDPE	~~4°C~~	~~TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)~~
	~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite (353.2)~~

WELL PURGING DATA

Date	1-28-09	Well Depth (ft BTOC)	184.55
Time Started	0935	Depth to Water (ft BTOC)	153.83
Time Completed	1000	Water Column Length	30.72
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	75.88
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	5

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0935	0	7.39	14.98	13.57	5.32	216.8	19	154.23	.200
0940	1	7.78	15.14	14.06	2.74	187.6	17	154.55	↓
0945	2	7.88	15.26	14.09	2.63	173.1	17	154.68	↓
0950	3	7.89	15.18	14.14	2.59	168.4	18	154.72	↓
0955	4	7.91	15.16	14.19	2.51	166.7	18	154.83	↓
1000	5	7.92	15.14	14.20	2.48	165.9	16	155.00	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 183' btoc

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = unk

* Bladder pump controller w/ 4.0 HP compressor. Refill / Discharge = 10/20 @ 90 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

* Resample for Hex. Chromium, Perch, Brom, Chloride, Fluoride, Sulfate (9056)

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: M114MW004 — WELL NO.: M114MW004

DATE/TIME COLLECTED: 1-26-09 0945 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

~~2 - 500 mL HDPE~~	4°C	Metals (6010B, 6020A)*
~~1 - 500 mL HDPE~~	4°C	TDS (160.1), ~~Hexavalent Chromium (7196A)~~*, Alkalinity (310.2)
~~1 - 250 mL HDPE~~	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite~~ (353.2).

DC

WELL PURGING DATA

Date	1-26-09	Well Depth (ft BTOC)	183.8
Time Started	0900	Depth to Water (ft BTOC)	149.05 ft
Time Completed	0945	Water Column Length	34.75
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	85.83
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	6.75

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0900	0	7.42	11.40	12.85	3.13	69.9	14	149.05	.150
0905	.75	7.48	11.52	13.17	2.31	58.4	11.0	149.05	↓
0910	1.5	7.52	11.63	13.41	1.25	50.6	11.0	149.05	↓
0915	2.25	7.61	12.00	13.61	.62	34.7	9.4	149.05	↓
0920	3	7.63	12.13	13.66	.52	31.0	7.1	149.05	↓
0925	3.75	7.66	12.33	13.75	.51	26.2	7.6	149.05	↓
0930	4.5	7.66	12.33	13.74	.47	24.4	7.4	149.05	↓
0935	5.25	7.69	12.39	13.80	.45	20.1	6.0	149.05	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' from bottom ~ 182' btoc

Pump Rate = .500

Well Diameter = 4"

Screen Interval = Unk

* bladder pump controller w/ 4.0 HP gas compress. Refill/Discharge @ 10/40 sec @ 125 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

2/2

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: **Melrose AFR LTM** PROJECT NO. **16170398**

SAMPLE NO. M114MW004 WELL NO. M114MW004

DATE/TIME COLLECTED 1-26-09 0945 PERSONNEL D. Converse

SAMPLE METHOD bladder pump w/ tubing M. Shoop

SAMPLE MEDIA: **Groundwater**

SAMPLE QA SPLIT: YES NO SPLIT SAMPLE NO. —

SAMPLE QC DUPLICATE: YES NO DUPLICATE SAMPLE NO. —

MS/MSD REQUESTED YES NO MS/MSD SAMPLE NO.

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)~~

WELL PURGING DATA

Date	1-26-09	Well Depth (ft BTOC)	Page 1
Time Started	0900	Depth to Water (ft BTOC)	
Time Completed	0945	Water Column Length	
PID Measurements		Well Casing Volume (per ft)	
Background	Page 1	Volume of Water in Well (L)	
Breathing Zone		Casing Volumes to Purge	
Well Head		Minimum to Purge (L)	
Purge Water		Actual Purge (L)	6.75

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0940	6	7.70	12.26	13.84	.44	18.9	5.2	149.05	.150
0945	6.75	7.70	12.15	13.83	.43	17.9	5.0	149.05	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # Page 1

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth =

Pump Rate =

Well Diameter =

Screen Interval =

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: M117MW002 — WELL NO.: M117MW002

DATE/TIME COLLECTED: 1-30-09 1105 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

DC

~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
1 - 500 mL HDPE	4°C	~~TDS (160.1), Hexavalent Chromium~~ (7196A)*, Alkalinity (310.2)
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite (353.2)~~

WELL PURGING DATA

Date	1-30-09	Well Depth (ft BTOC)	43.55
Time Started	1025	Depth to Water (ft BTOC)	40.95
Time Completed	1105	Water Column Length	2.60
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	6.42
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	4.0

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1025	0	7.69	14.99	5.735	5.13	181.3	8.1	40.95	.100
1035	1	7.72	15.41	5.701	4.81	176.4	7.4	41.05	↓
1040	1.5	7.74	15.92	5.663	4.46	170.6	7.1	41.11	↓
1045	2	7.71	15.58	5.601	4.41	168.8	6.5	41.18	↓
1050	2.5	7.70	15.70	5.585	4.45	167.7	6.1	41.21	↓
1055	3	7.70	16.62	5.579	4.68	167.0	4.5	41.25	↓
1100	3.5	7.70	16.48	5.574	4.61	165.1	3.4	41.30	↓
1105	4	7.70	16.60	5.574	4.57	164.8	3.1	41.40	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	Twice Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	Twice Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	Twice Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = Bottom ~43.55' btoc

Pump Rate = .100 L/min

Well Diameter = 4"

Screen Interval = unk

*bladder pump controller w/ 4.0HP gas Compr. Refill/Discharge = 15/15 sec @ 30 psi.

- Well went dry with 2.5 L of SVOCs/Org. Pest remain to be sampled. Tried to bail, unsuccessful. Remain Samples complete.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MA01MW001 — WELL NO.: MA01MW001

DATE/TIME COLLECTED: 1-29-09 1050 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES NO (NO circled) — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES NO (NO circled) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)~~

DC

WELL PURGING DATA

Date	1-29-09	Well Depth (ft BTOC)	162.65
Time Started	1020	Depth to Water (ft BTOC)	143.34
Time Completed	1050	Water Column Length	19.31
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	47.70
Breathing Zone	0.0 ppm	Casing Volumes to Purge	–
Well Head	0.0 ppm	Minimum to Purge (L)	–
Purge Water	0.0 ppm	Actual Purge (L)	6

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1020	0	7.79	15.01	3.511	7.49	247.4	50	143.47	.200
1025	1	7.82	16.16	3.548	4.71	242.5	47	143.61	
1030	2	7.77	16.53	3.557	4.65	240.8	44	143.80	
1035	3	7.78	16.63	3.557	4.61	238.4	29	143.98	
1040	4	7.79	16.70	3.556	4.56	237.0	22	144.10	
1045	5	7.80	16.89	3.559	4.56	231.4	16	144.24	
1050	6	7.81	17.03	3.561	4.56	229.0	14	144.46	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' from bottom ~ 161'

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = Unk

* bladder pump controller w/ 4.0 HP gas compress. refill / discharge = 10/20 @ ~~90 psi~~ 95 to 100 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MA01MW002 — WELL NO.: MA01MW002

DATE/TIME COLLECTED: 1-28-09 1255 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES (NO) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES (NO) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: (YES) NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
1 - 500 mL HDPE	4°C	~~TDS (160.1), Hexavalent~~ Chromium (7196A)*, Alkalinity (310.2)
~~1 - 250 mL HDPE~~	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), ~~Ammonia (350.1)~~, Nitrate/Nitrite (353.2)

DC

WELL PURGING DATA

Date	1-28-09	Well Depth (ft BTOC)	157.40
Time Started	1220	Depth to Water (ft BTOC)	142.33
Time Completed	1255	Water Column Length	15.07
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	37.22
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	7

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1220	0	8.25	16.43	2.877	9.29	149.1	9.1	142.51	.200
1225	1	8.15	16.68	2.910	4.04	147.0	7.4	142.73	↓
1230	2	8.02	17.37	3.030	3.03	140.3	5.9	142.98	↓
1235	3	7.99	17.52	3.064	2.69	134.7	5.0	143.57	↓
1240	4	7.99	17.56	3.081	2.55	128.2	4.3	143.89	↓
1245	5	7.99	17.64	3.083	2.46	123.6	3.8	144.05	↓
1250	6	7.98	17.59	3.085	2.50	119.1	3.4	144.31	↓
1255	7	7.99	17.60	3.082	2.46	117.8	3.1	144.69	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 156' btoc

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = unk

* bladder pump controller w/ 4.0 HP gas compress. Refill / discharge = 10/20 sec @ 90 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

2

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MA01MW003 — WELL NO.: MA01MW003

DATE/TIME COLLECTED: 1-29-09 1250 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES (circled) NO — SPLIT SAMPLE NO.: MA01MW003 Split

SAMPLE QC DUPLICATE: YES NO (circled) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO (circled) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)
~~2 - 500 mL HDPE~~	4°C	~~Metals (6010B, 6020A)*~~
1 - 500 mL HDPE	4°C	~~TDS (160.1)~~, Hexavalent Chromium (7196A)*, Alkalinity (310.2)
~~1 - 250 mL HDPE~~	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite (353.2)~~

DC

WELL PURGING DATA

Date	1-29-09	Well Depth (ft BTOC)	161.90
Time Started	1215	Depth to Water (ft BTOC)	144.0
Time Completed	1250	Water Column Length	17.90
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	44.21
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	7

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1215	0	7.91	17.07	3.196	4.41	230.2	45	144.30	.200
1220	1	7.87	17.26	3.217	3.48	220.7	29	144.53	
1225	2	7.84	17.33	3.197	3.55	214.2	17	144.76	
1230	3	7.80 ~~7.67~~	17.57	3.167	4.00	213.9	13	144.77	
1235	4	7.83	17.56	3.163	3.98	209.8	10	144.79	
1240	5	7.82	17.74	3.138	4.08	207.0	9.4	144.79	
1245	6	7.81	17.69	3.129	4.04	206.5	9.1	144.82	
1250	7	7.81	17.67	3.124	4.06	205.1	8.8	144.85	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	Twice Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	Twice Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	Twice Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 161' btoc

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = unk

* bladder pump controller w/ 4.0 HP Gas compressor Refill / Discharge = 10 / 20 sec @ 100 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MA01 MW004 — WELL NO.: MA01 MW004

DATE/TIME COLLECTED: 1-27-09 1355 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES (NO) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: (YES) NO — DUPLICATE SAMPLE NO.: MA01MW054 @ 1600

MS/MSD REQUESTED: YES (NO) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

DC

~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)~~

WELL PURGING DATA

Date	1-27-09	Well Depth (ft BTOC)	162.25
Time Started	1325	Depth to Water (ft BTOC)	142.65
Time Completed	1355	Water Column Length	19.6
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	48.41
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	6

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1325	0	8.02	15.79	2.204	6.71	147.3	14	143.10	.200
1330	1	7.92	16.67	2.026	6.37	143.3	12	143.26	
1335	2	7.89	16.85	1.973	6.13	142.4	12	143.41	
1340	3	7.88	16.85	1.968	6.41	141.9	11	143.67	
1345	4	7.88	16.93	1.966	6.43	141.7	8.4	143.89	
1350	5	7.87	16.99	1.965	6.48	141.7	8.0	144.05	
1355	6	7.87	17.06	1.966	6.49	141.6	6.0	144.20	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 161' btoc

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = UNK

* bladder pump controller w/ 4.0 He gas compres. refill/discharge rate = 10/20 sec @ 100 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: ~~MAOC1MW004~~ DC MA01MW004 — WELL NO.: ~~MAOC1MW004~~ DC MA01MW004

DATE/TIME COLLECTED: 1-28-09* 1140 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: **Groundwater**

SAMPLE QA SPLIT: YES (NO) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: (YES) NO — DUPLICATE SAMPLE NO.: ~~MAOC1MW054~~ DC @ 0800

MS/MSD REQUESTED: YES (NO) — MS/MSD SAMPLE NO.: MA01MW054

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
DC ~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
DC ~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
DC ~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
DC ~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
DC ~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
DC ~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC ~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
1 - 500 mL HDPE	4°C	~~TDS (160.1), Hexavalent Chromium (7196A)*~~, Alkalinity (310.2)
~~1 - 250 mL HDPE~~	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite (353.2)~~

WELL PURGING DATA

Date	1-28-09	Well Depth (ft BTOC)	162.25
Time Started	1115	Depth to Water (ft BTOC)	144.40
Time Completed	1140	Water Column Length	17.85
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	44.09
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	5

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1115	0	8.05	16.76	2.061	6.32	90.6	11	144.70	.200
1120	1	7.98	17.17	1.989	6.11	93.6	9.6	144.79	↓
1125	2	7.88	17.33	1.968	5.94	98.7	9.0	144.83	↓
1130	3	7.87	17.39	1.964	5.97	101.5	7.3	144.91	↓
1135	4	7.88	17.45	1.962	6.00	103.9	5.1	145.26	↓
1140	5	7.88	17.51	1.963	6.01	105.0	4.4	145.80	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~161' btoc

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = unk

* bladder pump w/ 4.0 HP compressor
Refill / discharge = 10/20 @ 90 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

* Sampled for Hex. Chromium, Perch, Brom, Chlo., Fluo., Sulfate only

1/2

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME Melrose AFR LTM — PROJECT NO. 16170398

SAMPLE NO. MA02MW001D — WELL NO. MA02MW001D

DATE/TIME COLLECTED 1-30-09 0855 — PERSONNEL D. Converse, M. Shoop

SAMPLE METHOD bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO. —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO. —

MS/MSD REQUESTED YES NO — MS/MSD SAMPLE NO.

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

~~2 - 500 mL HDPE~~	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	~~TDS (160.1), Hexavalent Chromium (7196A)*~~, Alkalinity (310.2)
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/~~Nitrite (353.2)~~

DC

WELL PURGING DATA

		Well Depth (ft BTOC)	184.50
Date	1-30-09	Depth to Water (ft BTOC)	105.58
Time Started	0815	Water Column Length	78.92
Time Completed	0855	Well Casing Volume (per ft)	2.47
PID Measurements		Volume of Water in Well (L)	194.93
Background	0.0 ppm	Casing Volumes to Purge	
Breathing Zone	0.0 ppm	Minimum to Purge (L)	—
Well Head	0.0 ppm	Actual Purge (L)	8
Purge Water	0.0 ppm		

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0815	0	7.31	15.16	10.28	4.63	216.4	13.	105.59	.200
0820	1	7.35	15.27	10.31	2.49	205.0	7.7	105.60	
0825	2	7.63	15.80	10.84	0.76	177.4	8.1	105.84	
0830	3	7.66	16.12	10.82	0.56	170.9	7.9	106.07	
0835	4	7.67	16.25	10.79	0.54	168.7	7.4	106.22	
0840	5	7.72	16.43	10.67	0.44	162.9	7.9	106.55	
0845	6	7.70	16.49	10.54	0.39	157.0	6.9	106.59	
0850	7	7.71	16.50	10.52	0.37	152.1	6.3	107.10	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' from bottom ~ 183' btoc

Pump Rate = .200 mL/min

Well Diameter = 4"

Screen Interval = Unk

* bladder pump controller w/ 4.0HP gas compress. Refill/Discharge = 10/28 @ 110 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS 2/2

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MA02MW001D — WELL NO.: MA02MW001D

DATE/TIME COLLECTED: 1-30-09 0855 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO (NO circled) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO (NO circled) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
3 - 40 mL VOAs	4°C + HCL	VOCs (8260B)
3 - 1 L Amber	4°C	SVOCs (8270C), Organochlorine Pest. (8081A)
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A, 7470A)*
1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4°C + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4°C	Explosives (8330)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)

~~3 - 500 mL HDPE~~	~~4°C~~	Metals (6010B, 6020A)*
~~1 - 500 mL HDPE~~	~~4°C~~	~~TDS (160.1), Hexavalent Chromium (7196A)*~~, Alkalinity (310.2)
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite~~ (353.2)

DC

WELL PURGING DATA

Date	1-30-09	Well Depth (ft BTOC)	Page 1
Time Started	0815	Depth to Water (ft BTOC)	
Time Completed	0855	Water Column Length	
PID Measurements		Well Casing Volume (per ft)	
Background	Page 1	Volume of Water in Well (L)	
Breathing Zone		Casing Volumes to Purge	
Well Head		Minimum to Purge (L)	
Purge Water		Actual Purge (L)	8

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0855	8	7.72	16.52	10.51	0.35	154.1	6.1	107.31	.200

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # Page 1

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth =

Pump Rate =

Well Diameter =

Screen Interval =

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MA02MW001D — WELL NO.: MA02MW001D

DATE/TIME COLLECTED: 2-3-09 0920* — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: **Groundwater**

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

	Sample Container	Preservative	Analysis Requested
DC	~~4 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
DC	~~3 - 1-L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
DC	~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
	1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
DC	~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
DC	~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
DC	~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC	~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
	1 - 500 mL HDPE	4°C	TDS (160.1), ~~Hexavalent Chromium~~ (7196A)*, Alkalinity (310.2)
	~~1 - 250 mL HDPE~~	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite~~ (353.2) DC

WELL PURGING DATA

		Well Depth (ft BTOC)	184.50
Date	2-3-09	Depth to Water (ft BTOC)	105.90
Time Started	0830	Water Column Length	78.6
Time Completed	0920	Well Casing Volume (per ft)	2.47
PID Measurements		Volume of Water in Well (L)	194.14
Background	0.0 ppm	Casing Volumes to Purge	–
Breathing Zone	0.0 ppm	Minimum to Purge (L)	–
Well Head	0.0 ppm	Actual Purge (L)	10
Purge Water	0.0 ppm		

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0830	0	7.60	~~8.14.22~~	~~8.158~~ 10.41 DC	6.12	103.3	7.9	105.90	.200
0835	1	7.75	14.24	10.68	1.65	56.7	9.6	105.97	
0840	2	7.81	14.10	10.83	1.09	26.4	10	106.04	
0845	3	7.84	13.72	10.97	0.74	8.2	12	106.21	
0850	4	7.76	13.68	10.89	0.62	-4.0	11	106.36	
0855	5	7.77	13.68	10.82	0.64	-6.3	14	106.45	
0900	6	7.82	13.78	10.73	0.51	-16.2	12	106.49	
0905	7	7.82	13.74	10.68	0.47	-21.8	10	106.51	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 182' btoc

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = unk

* bladder controller w/ 4.0HP gas controller. Refill / discharge = 10/25 sec @ 95 psi

* Resample for Hex. Chrom, etc... 1 x 500 mL HDPE ONLY

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

2/2

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MA02MW001D — WELL NO.: MA02MW001D

DATE/TIME COLLECTED: 2-3-09 0920 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: **Groundwater**

SAMPLE QA SPLIT: YES (NO) — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES (NO) — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES (NO) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

	Sample Container	Preservative	Analysis Requested
DC	~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
DC	~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
DC	~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
	1 - 500 mL HDPE	4°C	Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
DC	~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
DC	~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
DC	~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

	2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
DC	1 - 500 mL HDPE	4°C	TDS (160.1), ~~Hexavalent Chromium (7196A)*~~, Alkalinity (310.2)
	~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	TOC (9060), Phosphate (365.2), Ammonia (350.1), ~~Nitrate/Nitrite (353.2)~~

WELL PURGING DATA

Date	2-3-09	Well Depth (ft BTOC)	Page 1
Time Started	0830	Depth to Water (ft BTOC)	
Time Completed	0920	Water Column Length	
PID Measurements		Well Casing Volume (per ft)	
Background	Page 1	Volume of Water in Well (L)	
Breathing Zone		Casing Volumes to Purge	
Well Head		Minimum to Purge (L)	
Purge Water		Actual Purge (L)	10

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0910 DC ~~0830~~	8	7.80	13.85	10.59	0.43	-23.7	9.3	106.59	.200
0915	9	7.81	13.83	10.56	0.42	-25.3	8.4	106.62	↓
0920	10	7.81	13.83	10.54	0.41	-27.4	7.9	106.71	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	Twice Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	Twice Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	Twice Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # Page 1

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth =

Pump Rate =

Well Diameter =

Screen Interval =

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

1/2

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-2 — WELL NO.: MWQ-2

DATE/TIME COLLECTED: 1-21-09 1220 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES (NO) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES (NO) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: (YES) NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

DC

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250 mL~~ HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DC 500

WELL PURGING DATA

Date	1-21-09	Well Depth (ft BTOC)	238.52
Time Started	1135	Depth to Water (ft BTOC)	121.93
Time Completed	1220	Water Column Length	116.59
PID Measurements		Well Casing Volume (per ft)	.65
Background	0.0 ppm	Volume of Water in Well (L)	75.78
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	9.0

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1135	0	7.17	19.38	10.98	3.20	75.5	8.5	121.98	.200
1140	1	7.86	19.44	11.21	1.66	31.4	9.9	122.41	↓
1145	2	7.46	19.64	11.51	0.61	7.3	11	122.44	↓
1150	3	7.52	19.85	11.55	0.45	-14.3	13	122.87	↓
1155	4	7.56	19.93	11.64	0.39	-31.1	15	123.17	↓
1200	5	7.57	20.10	11.66	0.35	-39.7	14	123.18	↓
1205	6	7.59	20.11	11.67	0.33	-48.4	13	123.62	↓
1210	7	7.61	20.24	11.67	0.31	-58.2	10	123.96	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = ~1' above bottom (237')

Pump Rate = .200 L/min

Well Diameter = 2"

Screen Interval = unk

* bladder pump controller w/ 4.0HP gas compr. - refill/discharge setting 5/35 sec. @ ~180 psi (full throttle)

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM
PROJECT NO.: 16170398

SAMPLE NO.: MWQ-2
WELL NO.: MWQ-2

DATE/TIME COLLECTED: 1-21-09 1220
PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater
SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: —
SAMPLE QC DUPLICATE: YES NO (NO circled) — DUPLICATE SAMPLE NO.: —
MS/MSD REQUESTED: YES (YES circled) NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

DC

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250~~ 500 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DC

WELL PURGING DATA

Page 1

Date	1-21-09	Well Depth (ft BTOC)	
Time Started	1135	Depth to Water (ft BTOC)	
Time Completed	1220	Water Column Length	
PID Measurements		Well Casing Volume (per ft)	
Background		Volume of Water in Well (L)	
Breathing Zone		Casing Volumes to Purge	
Well Head		Minimum to Purge (L)	
Purge Water		Actual Purge (L)	

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1215	8	7.63	20.37	11.66	.31	-63.2	9.6	124.01	.200
1220	9	7.65	20.30	11.67	.31	-68.1	9.1	125.33	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Page 1

Multi-Parameter Probe Unit #
Field Parameters Measured in Flow-Through Cell
Pump Placement Depth =
Pump Rate =
Well Diameter =
Screen Interval =

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-3 — WELL NO.: MWQ-3 (Ded. Sub. pump in underground vault)

DATE/TIME COLLECTED: 1-21-09 1435 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: Outflow spout & hose

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES (NO) — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: (YES) ~~NO~~ — DUPLICATE SAMPLE NO.: MWQ-53 @ 0800

MS/MSD REQUESTED: ~~YES~~ (NO) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

DC

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250~~ 500 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

Date	1-21-09	Well Depth (ft BTOC)	UNK
Time Started	1410	Depth to Water (ft BTOC)	↓
Time Completed	1435	Water Column Length	↓
PID Measurements		Well Casing Volume (per ft)	↓
Background	0.0 ppm	Volume of Water in Well (L)	↓
Breathing Zone	0.0 ppm	Casing Volumes to Purge	↓
~~Well Head~~	–	Minimum to Purge (L)	↓
Purge Water	0.0 ppm	Actual Purge (L)	12.5

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1410	0	7.75	19.10	.813	6.02	137.9	.66	UNK	~~UNK~~ .500
1415	2.5	7.85	19.39	.811	5.42	126.8	.60	↓	↓
1420	5	7.86	19.69	.809	5.54	118.5	.37	↓	↓
1425	7.5	7.86	19.79	.809	5.35	114.7	.44	↓	↓
1430	10	7.86	20.06	.807	5.22	112.5	.31	↓	↓
1435	12.5	7.86	20.10	.807	5.18	109.9	.25	↓	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = UNK

Pump Rate = .500 L/min

Well Diameter = UNK

Screen Interval = UNK

* Dedicated Submersible pump in underground vault. Sampled via outflow spout w/ hose.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-4 — WELL NO.: MWQ4

DATE/TIME COLLECTED: 2-2-09 1435 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: ~~bladder pump~~ DC Outflow spout w/ hose

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

Date	2-2-09	Well Depth (ft BTOC)	Unk
Time Started	1410	Depth to Water (ft BTOC)	
Time Completed	1435	Water Column Length	
PID Measurements		Well Casing Volume (per ft)	
Background	0.0 ppm	Volume of Water in Well (L)	
Breathing Zone	0.0 ppm	Casing Volumes to Purge	
Well Head	0.0 ppm	Minimum to Purge (L)	
Purge Water	0.0 ppm	Actual Purge (L)	12.5

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1410	0	7.73	16.34	0.583	9.18	-61.6	4.5	unk	.500
1415	2.5	7.63	16.09	0.580	7.36	-56.3	4.4		
1420	5	7.64	15.98	0.580	7.75	-52.2	4.9		
1425	7.5	7.64	16.01	0.578	7.06	-45.5	4.3		
1430	10	7.63	16.00	0.579	7.06	-42.9	5.2		
1435	12.5	7.62	15.95	0.580	7.05	-39.6	5.9		

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = Unk

Pump Rate = .500 L/min

Well Diameter = Unk

Screen Interval = Unk

* Dedicated Submersible pump via Solar powered pump. Sampled via outflow spout w/ hose

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-5 — WELL NO.: MWQ-5 (Ded. Sub pump in underground vault)

DATE/TIME COLLECTED: 1-23-09 1355 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: outflow spout & hose

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES / (NO) — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES / (NO) — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES / (NO) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DL

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250~~ mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

500 DL

WELL PURGING DATA

Date	1-23-09	Well Depth (ft BTOC)	Unk
Time Started	1335	Depth to Water (ft BTOC)	↓
Time Completed	1355	Water Column Length	↓
PID Measurements		Well Casing Volume (per ft)	↓
Background	0.0 ppm	Volume of Water in Well (L)	↓
Breathing Zone	0.0 ppm	Casing Volumes to Purge	↓
Well Head	0.0 ppm	Minimum to Purge (L)	↓
Purge Water	0.0 ppm	Actual Purge (L)	10

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1335	0	7.56	17.94	.666	7.03	146.9	3.6	unk	.500
1340	2.5	7.65	17.88	.666	6.63	132.6	3.1	↓	↓
1345	5	7.65	17.94	.665	6.52	134.1	2.4	↓	↓
1350	7.5	7.65	17.95	.666	6.34	130.9	2.1	↓	↓
1355	10	7.64	17.96	.665	6.29	127.4	1.8	↓	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = unk

Pump Rate = .500 L/min

Well Diameter = outflow spout / unk

Screen Interval = unk

* Dedicated submersible pump in underground vault. Sampled via outflow spout & hose.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-6 — WELL NO.: MWQ-6 (ded. Subm. pump in underground vault)

DATE/TIME COLLECTED: 1-20-09 1400 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: Outflow spout & hose

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES (NO) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES (NO) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: (YES) NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~ DC
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250 mL~~ HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DC 500 mL

WELL PURGING DATA

Date	1-20-09	Well Depth (ft BTOC)	UNK
Time Started	1340	Depth to Water (ft BTOC)	
Time Completed	1400	Water Column Length	
PID Measurements		Well Casing Volume (per ft)	
Background	0.0 ppm	Volume of Water in Well (L)	
Breathing Zone	0.0 ppm	Casing Volumes to Purge	
~~Well Head~~		Minimum to Purge (L)	
Purge Water	0.0 ppm	Actual Purge (L)	10

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1340	0	7.62	17.52	.576	5.89	90.5	0.15	UNK	.500
1345	2.5	7.69	17.62	.576	5.68	80.1	0.17		
1350	5	7.72	18.15	.577	5.65	74.5	0.14		
1355	7.5	7.72	18.04	.579	5.28	72.8	0.18		
1400	10	7.72	18.18	.576	5.23	71.9	0.18		

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = UKN

Pump Rate = .500 L/min

Well Diameter = outflow spout / UNK

Screen Interval = UNK

* Dedicated Submersible pump in underground vault. Sampled via outflow spout w/ hose.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-7 — WELL NO.: MWQ-7 (dedicated Sub. pump in underground vault)

DATE/TIME COLLECTED: 1-20-09 1130 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: Outflow Spout & hose

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: (YES) NO — SPLIT SAMPLE NO.: MWQ-7 Split

SAMPLE QC DUPLICATE: (YES) NO — DUPLICATE SAMPLE NO.: MWQ-57 @ 1800

MS/MSD REQUESTED: YES (NO) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250~~ mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DL 500

WELL PURGING DATA

Date	1-20-09	Well Depth (ft BTOC)	UNK
Time Started	1115	Depth to Water (ft BTOC)	↓
Time Completed	1130	Water Column Length	↓
PID Measurements		Well Casing Volume (per ft)	↓
Background	0.0 ppm	Volume of Water in Well (L)	↓
Breathing Zone	0.0 ppm	Casing Volumes to Purge	↓
~~Well Head~~	—	Minimum to Purge (L)	↓
Purge Water	0.0 ppm	Actual Purge (L)	7.5

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1115	0	7.61	19.06	.764	6.46	43.0	0.25	UNK	.500
1120	2.5	7.67	18.96	.764	6.37	40.2	0.17	↓	↓
1125	5	7.67	18.77	.766	6.21	41.7	0.15	↓	↓
1130	7.5	7.67	18.96	.764	6.18	43.6	0.15	↓	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = UNK

Pump Rate = .500 L/min

Well Diameter = Outflow spout / unk

Screen Interval = Unk

* Dedicated Submersible pump in underground vault. Sampled via Outflow Spout w/ hose.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM
PROJECT NO.: 16170398

SAMPLE NO.: MWQ-10
WELL NO.: MWQ-10 (dedicated subm. pump) in vault

DATE/TIME COLLECTED: 1-20-09 0900
PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: Outflow Spout & hose

SAMPLE MEDIA: Groundwater
SAMPLE QA SPLIT: (YES) NO — SPLIT SAMPLE NO.: MWQ-10 Split
SAMPLE QC DUPLICATE: (YES) NO — DUPLICATE SAMPLE NO.: MWQ-60 @ 0800
MS/MSD REQUESTED: YES (NO) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~ DC
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250~~ mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DC 500mL

WELL PURGING DATA

Date	1-20-09	Well Depth (ft BTOC)	UNK
Time Started	0840	Depth to Water (ft BTOC)	UNK
Time Completed	0900	Water Column Length	UNK
PID Measurements		Well Casing Volume (per ft)	UNK
Background	0.0 ppm	Volume of Water in Well (L)	UNK
Breathing Zone in vault	0.0 ppm	Casing Volumes to Purge	–
~~Well Head~~	–	Minimum to Purge (L)	–
Purge Water	0.0 ppm	Actual Purge (L)	10

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0840	0	7.15	19.03	.660	6.54	52.2	.29	UNK	.500
0845	2.5	7.36	19.14	.646	5.79	55.3	1.6	↓	↓
0850	5	7.44	19.48	.640	5.70	56.9	1.7		
0855	7.5	7.41	19.53	.637	5.73	59.6	.66		
0900	10	7.31	19.69	.631	5.69	61.1	.25		

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556
Field Parameters Measured in Flow-Through Cell
Pump Placement Depth = UNK
Pump Rate = ~~.5 mL~~ DC .500 L/min
Well Diameter = Outflow Spout / UNK
Screen Interval = Unk

* Dedicated Submersible pump located underground vault. Sampled via Outflow Spout w/ 5/8" hose.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-14 — WELL NO.: MWQ14

DATE/TIME COLLECTED: 1-29-09 0910 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES / NO (NO circled) — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES / NO — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES / NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

		Well Depth (ft BTOC)	121.35
Date	1-29-09	Depth to Water (ft BTOC)	65.45
Time Started	0840	Water Column Length	55.90
Time Completed	0910	Well Casing Volume (per ft)	2.47
PID Measurements		Volume of Water in Well (L)	138.07
Background	0.0 ppm	Casing Volumes to Purge	–
Breathing Zone	0.0 ppm	Minimum to Purge (L)	–
Well Head	0.0 ppm	Actual Purge (L)	6
Purge Water	0.0 ppm		

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0840	0	6.79	13.59	3.795	4.51	237.3	31	65.65	.200
0845	1	7.27	14.10	3.829	3.45	229.6	19	65.89	↓
0850	2	7.55	14.42	3.859	3.03	222.5	14	66.10	↓
0855	3	7.66	14.61	3.870	2.82	217.3	9.3	66.19	↓
0900	4	7.71	14.54	3.885	2.78	216.8	7.1	66.26	↓
0905	5	7.74	14.63	3.891	2.80	215.1	5.7	66.31	↓
0910	6	7.73	14.69	3.890	2.81	215.4	4.4	66.46	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 120' btoc

Pump Rate = .200 L/min

Well Diameter = 4"

Screen Interval = N/A

* bladder pump controller w/ 4.0 HP gas compress Refill / Discharge = 10/20 @ 60 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-18 — WELL NO.: MWQ-18

DATE/TIME COLLECTED: 1-22-08 1225 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO (NO circled) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO (NO circled) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250 mL~~ 500 HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DL

WELL PURGING DATA

		Well Depth (ft BTOC)	~ 115.83
Date	1-22-08	Depth to Water (ft BTOC)	101.31
Time Started	1150	Water Column Length	14.52
Time Completed	1225	Well Casing Volume (per ft)	.65
PID Measurements		Volume of Water in Well (L)	9.44
Background	0.0 ppm	Casing Volumes to Purge	—
Breathing Zone	0.0 ppm	Minimum to Purge (L)	—
Well Head	0.0 ppm	Actual Purge (L)	8.75
Purge Water	0.0 ppm		

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1150	0	7.63	18.53	.211	4.27	159.4	6.1	101.31	.250
1155	1.25	7.67	18.50	.238	4.07	157.3	4.9	101.31	
1200	2.5	7.67	18.38	.311	4.14	160.4	5.4	101.31	
1205	3.75	7.66	18.38	.416	4.27	156.5	7.1	101.31	
1210	5	7.66	18.49	.555	4.75	155.5	7.8	101.33	
1215	6.25	7.67	18.75	.586	4.78	153.6	7.4	101.33	
1220	7.5	7.67	18.80	.610	4.89	152.8	8.1	101.31	
1225	8.75	7.67	18.85	.618	4.84	151.7	7.5	101.31	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

bladder pump controller w/ 4.0 HP Gas compress. - refill/discharge = 10/15 sec @ 95 psi

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' from bottom ~114' btoc

Pump Rate = .250 L/min

Well Diameter = 2"

Screen Interval = Unk

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-19 — WELL NO.: MWQ-19

DATE/TIME COLLECTED: 1-22-09 1400 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO (NO circled) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO (NO circled) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

Date	1-22-09	Well Depth (ft BTOC)	~ 203.00
Time Started	1330	Depth to Water (ft BTOC)	~~100.95~~ 100.95
Time Completed	1400	Water Column Length	102.05
PID Measurements		Well Casing Volume (per ft)	.65
Background	0.0 ppm	Volume of Water in Well (L)	66.33
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	6.750

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1330	0	7.24	18.92	6.505	2.79	-42.8	16.1	98.5	0.225
1335	1.125	7.11	18.95	7.218	0.69	-63.1	9.4	101.0	
1340	2.250	7.11	19.37	7.350	0.46	-69.0	6.5	102.10	
1345	3.375	7.13	19.32	7.440	0.35	-75.2	6.7	103.25	
1350	4.500	7.13	18.92	7.452	0.30	-73.4	4.8	103.95	
1355	5.625	7.13	18.78	7.451	0.27	-75.0	4.1	104.49	
1400	6.750	7.14	19.01	7.459	0.26	-77.9	3.2	106.65	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 202' btoc

Pump Rate = .225 L/min

Well Diameter = 2"

Screen Interval = Unk

* bladder pump controller w/ 4.0 HP gas compress. refill/discharge: ~~25/15~~ 5/25 sec @ max throttle (140 psi) - water very effervescent

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-20 — WELL NO.: MWQ-20

DATE/TIME COLLECTED: 1-22-09 1535 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

~~Sample Container~~	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

		Well Depth (ft BTOC)	~200.0
Date	1-22-09	Depth to Water (ft BTOC)	~~85.5~~ 83.05
Time Started	1455	Water Column Length	116.95
Time Completed	1535	Well Casing Volume (per ft)	.65
PID Measurements		Volume of Water in Well (L)	76.02
Background	0.0 ppm	Casing Volumes to Purge	—
Breathing Zone	0.0 ppm	Minimum to Purge (L)	—
Well Head	0.0 ppm	Actual Purge (L)	8
Purge Water	0.0 ppm		

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1455	0	7.45	18.79	16.48	3.09	143.6	9.1	83.05	.200
1500	1	7.54	18.67	17.70	0.82	58.5	4.3	83.58	↓
1505	2	7.56	18.88	17.81	0.63	25.5	3.7	84.00	↓
1510	3	7.58	19.07	17.92	0.53	-15.2	3.4	84.37	↓
1515	4	7.59	18.90	17.98	0.47	-30.2	2.9	84.91	↓
1520	5	7.60	18.75	17.97	0.42	-45.8	2.7	85.43	↓
1525	6	7.61	18.65	17.98	0.38	-52.0	2.6	86.14	↓
1530	7	7.62	18.61	18.00	0.35	-55.6	2.4	86.62	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = ~199' btoc

Pump Rate = .200 L/min

Well Diameter = 2"

Screen Interval = Unk

* bladder pump controller w/ 4.0 HP compress. (gas)
- Refill / discharge rate = 5/25 sec @ max throttle (130 psi)
- water effervescent

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

2/2

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-20 — WELL NO.: MWQ-20

DATE/TIME COLLECTED: 1-22-09 1535 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	4^oC + HCL	VOCs (8260B)
3 - 1 L Amber	4^oC	SVOCs (8270C), Organochlorine Pest. (~~8081A~~)
2 - 500 mL HDPE	4^oC	Metals (6010B, 6020A, ~~7470A~~)*
1 - 500 mL HDPE	4^oC	~~Hexavalent~~ Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)
1 - 500 mL HDPE	4^oC + ZnOAc/NaOH	Sulfide (9034)
2 - 250 mL Amber	4^oC	Explosives (8330)
1 - ~~250 mL HDPE~~	4^oC + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1)
2 - 500 mL HDPE	4^oC	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4^oC	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250~~ 500 mL HDPE	4^oC + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DC

WELL PURGING DATA

		Well Depth (ft BTOC)	Page 1
Date	1-22-09	Depth to Water (ft BTOC)	
Time Started	1455	Water Column Length	
Time Completed	1535	Well Casing Volume (per ft)	
PID Measurements		Volume of Water in Well (L)	
Background	Page 1	Casing Volumes to Purge	
Breathing Zone		Minimum to Purge (L)	
Well Head		Actual Purge (L)	
Purge Water			

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1535	8	7.63	18.60	18.00	0.34	-58.1	2.6	87.14	.200

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # Page 1

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth =

Pump Rate =

Well Diameter =

Screen Interval =

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-21 — WELL NO.: MWQ-21

DATE/TIME COLLECTED: 1-23-09 0945 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

DC

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~
2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250 mL~~ HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DC 500

WELL PURGING DATA

Date	1-23-09	Well Depth (ft BTOC)	61.60
Time Started	0900	Depth to Water (ft BTOC)	44.81
Time Completed	0945	Water Column Length	16.79
PID Measurements		Well Casing Volume (per ft)	.65
Background	0.0 ppm	Volume of Water in Well (L)	10.91
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	8.75

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0900	0	7.22	16.81	1.975	5.73	175.7	1000+	44.81	.250 *
0915	1.25	7.16	17.50	1.990	3.49	153.1	350	44.81	↓
0920	2.50	7.14	17.62	2.003	3.54	148.1	100	44.81	↓
0925	3.75	7.14	17.69	2.004	3.47	144.5	45	44.81	↓
0930	5	7.14	17.75	2.000	3.33	142.3	36	44.81	↓
0935	6.25	7.14	17.38	1.993	3.36	139.6	33	44.81	↓
0940	7.5	7.14	17.71	1.998	3.41	138.5	30	44.81	↓
0945	8.75	7.14	17.80	1.991	3.41	138.0	27	44.81	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 3' off bottom ~58' btoc

Pump Rate = .250

* Well Diameter = 2"

Screen Interval = VAK

* bladder pump controller w/ 4.0 HP Gas Compress. Refill/Discharge = 10/20 sec @ 90 PSI

* water too turbid/clogged pump/lifted pump 2'/water stopped flow continued.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

→ MWQ21 = 2" well in same Riser as MWQ22 = 2"

WATER SAMPLE COLLECTION FIELD SHEET

URS 1/2

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-22 — WELL NO.: MWQ-22

DATE/TIME COLLECTED: 1-23-09 1220 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250 mL~~ 500 HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DL

WELL PURGING DATA

Date	1-23-09	Well Depth (ft BTOC)	153.00
Time Started	1030	Depth to Water (ft BTOC)	41.85
Time Completed	1220	Water Column Length	111.15
PID Measurements		Well Casing Volume (per ft)	.65
Background	0.0 ppm	Volume of Water in Well (L)	72.25
Breathing Zone	0.0 ppm	Casing Volumes to Purge	–
Well Head	0.0 ppm	Minimum to Purge (L)	–
Purge Water	0.0 ppm	Actual Purge (L)	21.5

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)	
1030	0	7.42	18.36	1.942	5.40	130.8	1000+	42.15	.300	*1
1040	1.5	7.92	17.84	3.712	0.67	26.0	250	43.10		
1045	3	8.02	17.77	3.892	0.63	-14.1	143	43.50		*1
1050	4.5	8.02	17.53	3.875	0.41	-46.8	80	43.71		
1055	5	8.01	17.82	3.834	0.26	-69.1	66	43.93		
→ * 1100	6.5	8.02	17.91	3.819	0.25	-71.3	39	44.26		
1135	8	7.86	19.34	3.694	1.71	51.0	170	43.15		
1140	9.5	7.93	19.17	3.654	0.92	23.8	300	43.15		

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 2' off bottom. ~151' btoc

Pump Rate = .300 L/min

Well Diameter = 2"

Screen Interval = unk

* bladder pump controller w/ 4.0 HP gas comp. Refill/Discharge = 10/60 sec @ 130 psi

*1 Water too turbid, caused out flow thru probe

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

→ * Pump started sending air, large amounts. Shut down, pulled pump (bladder may have been cracked). Repaired & resumed

WATER SAMPLE COLLECTION FIELD SHEET

URS 2/2

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWQ-22 — WELL NO.: MWQ-22

DATE/TIME COLLECTED: 1-23-09 1220 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: -

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: -

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250 mL~~ 500 HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

		Well Depth (ft BTOC)	Page 1
Date	1-23-09	Depth to Water (ft BTOC)	
Time Started	1030	Water Column Length	
Time Completed	1220	Well Casing Volume (per ft)	
PID Measurements		Volume of Water in Well (L)	
Background	See page 1	Casing Volumes to Purge	
Breathing Zone		Minimum to Purge (L)	
Well Head		Actual Purge (L)	21.5
Purge Water			

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1145	11	7.98	19.47	3.667	1.71	13.6	170	43.15	.300 *
1150	12.5	7.97	19.33	3.641	.98	-8.7	95	43.15	
1155	14	7.95	19.28	3.596	.73	-25.9	75	43.15	
1200	15.5	7.93	19.35	3.544	.66	-50.1	63	43.15	
1205	17	7.89	19.34	3.493	.55	-69.4	46	43.15	
1210	18.5	7.87	19.29	3.452	.57	-77.3	37	43.15	
1215	20	7.86	19.32	3.439	.54	-81.3	34	43.15	
1220	21.5	7.85	19.28	3.431	.53	-83.4	28	43.15	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # Page 1

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth =

Pump Rate =

Well Diameter =

Screen Interval =

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWL-4 — WELL NO.: MWL4

DATE/TIME COLLECTED: 1-30-09 1430 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

Date	1-30-09	Well Depth (ft BTOC)	59.79
Time Started	1355	Depth to Water (ft BTOC)	50.00
Time Completed	1430	Water Column Length	9.79
PID Measurements		Well Casing Volume (per ft)	.65
Background	0.0 ppm	Volume of Water in Well (L)	6.36
Breathing Zone	0.0 ppm	Casing Volumes to Purge	—
Well Head	0.0 ppm	Minimum to Purge (L)	—
Purge Water	0.0 ppm	Actual Purge (L)	7

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1355	0	7.27	18.16	0.919	0.95	-162.8	28	50.19	.200
1400	1	7.30	17.35	0.838	0.50	-176.3	19	50.66	
1405	2	7.33	17.49	.768	0.19	-196.9	16	51.14	
1410	3	7.35	17.44	.767	0.19	-189.6	14	51.60	
1415	4	7.34	16.42	.759	0.16	-188.7	16	51.95	
1420	5	7.32	16.33	.757	0.15	~~-180.1~~	16	52.18	
1425	6	7.32	16.25		0.14 DC	-186.6	16	52.36	
1430	7	7.32	16.13	.753	0.13	-187.1	17	52.50	

-187.4

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 59' btoc

Pump Rate = .200 L/min

Well Diameter = 2"

Screen Interval = Unk

* bladder pump controller w/ 4.0 HP gas compress. Refill / Discharge = 30/5 sec @ 60 psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWL-4 * — WELL NO.: MWL4

DATE/TIME COLLECTED: 2-2-09 1200 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO (NO circled) — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO (NO circled) — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO (NO circled) — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~
DC ~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A)*~~
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
DC ~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)~~

DC

WELL PURGING DATA

		Well Depth (ft BTOC)	59.79
Date	2-2-09	Depth to Water (ft BTOC)	50.05
Time Started	1140	Water Column Length	9.74
Time Completed	1200	Well Casing Volume (per ft)	.65
PID Measurements		Volume of Water in Well (L)	6.33
Background	0.0	Casing Volumes to Purge	—
Breathing Zone	0.0	Minimum to Purge (L)	—
Well Head	0.0	Actual Purge (L)	4
Purge Water	0.0		

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1140	0	7.61	16.68	0.753	0.55	-166.2	32	50.45	.200
1145	1	7.48	16.95	0.747	0.27	-179.9	32	50.80	↓
1150	2	7.49	17.17	0.744	0.19	-183.3	31	51.03	↓
1155	3	7.49	17.42	0.742	0.16	-187.4	31	51.48	↓
1200	4	7.49	17.61	0.741	0.15	-190.1	30	51.96	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' from bottom ~ 58' btoc

Pump Rate = .200 L/min

Well Diameter = 2"

Screen Interval = unk

* bladder controller w/ 4.0 HP gas compress. Refill / Discharge: 30/5 sec @ 60 psi

* Resample for: TDS, Hex. Chromium*, Alkalinity ONLY

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWL-5 — WELL NO.: MWL5

DATE/TIME COLLECTED: 2-2-09 1320 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DC

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

		Well Depth (ft BTOC)	35.00
Date	2-2-09	Depth to Water (ft BTOC)	12.21
Time Started	1245	Water Column Length	22.79
Time Completed	1320	Well Casing Volume (per ft)	5.62
PID Measurements		Volume of Water in Well (L)	128.08
Background	0.0 ppm	Casing Volumes to Purge	–
Breathing Zone	0.0 ppm	Minimum to Purge (L)	–
Well Head	0.0 ppm	Actual Purge (L)	5.25
Purge Water	0.0 ppm		

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1245	0	7.41	16.56	1.117	0.62	-246.5	29	12.35	.150
1250	.75	7.41	16.45	1.115	0.35	-262.1	26	12.40	↓
1255	1.5	7.37	16.55	1.116	0.37	-268.7	22	12.41	↓
1300	2.25	7.39	16.61	1.109	0.36	-271.6	20	12.43	↓
1305	3	7.38	16.50	1.104	0.30	-280.6	18	12.45	↓
1310	3.75	7.37	16.70	1.100	0.22	-289.1	17	12.45	↓
1315	4.5	7.38	16.74	1.098	0.20	-291.4	15	12.46	↓
1320	5.25	7.37	16.80	1.097	0.19	-296.3	14	12.45	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 34' btoc

Pump Rate = .150 L/min

Well Diameter = 6"

Screen Interval = unk

* bladder controller w/ 4.0 HP gas compressor Refill/Discharge = 25/5 sec @ 40 psi

- Water has slight sulfur odor.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWL-6 — WELL NO.: MWL6

DATE/TIME COLLECTED: 2-2-09 0910 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: —

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: —

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

ID C

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

		Well Depth (ft BTOC)	135.00
Date	2-2-09	Depth to Water (ft BTOC)	118.45
Time Started	0840	Water Column Length	16.55
Time Completed	0910	Well Casing Volume (per ft)	5.62
PID Measurements		Volume of Water in Well (L)	93.01
Background	0.0 ppm	Casing Volumes to Purge	—
Breathing Zone	0.0 ppm	Minimum to Purge (L)	—
Well Head	0.0 ppm	Actual Purge (L)	6
Purge Water	0.0 ppm		

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0840	0	8.87	13.05	0.572	5.51	10.6	11	118.50	.200
0845	1	8.91	13.97	0.555	1.91	-1.4	11	118.50	↓
0850	2	8.92	14.12	0.560	1.40	-7.5	11	118.50	↓
0855	3	8.94	14.29	0.558	1.28	-19.9	11	118.50	↓
0900	4	8.96	14.34	0.562	1.13	-22.6	10	118.50	↓
0905	5	8.96	14.39	0.564	1.15	-20.4	9.1	118.50	↓
0910	6	8.96	14.42	0.566	1.16	-19.1	8.5	118.50	↓

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' from bottom ~ 134' btoc

Pump Rate = .200 L/min

Well Diameter = 6"

Screen Interval = Unk

* bladder pump controller w/ 4.0 HP gas compres. Refill/discharge = 10/20 sec @

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWL-7 — WELL NO.: MWL7

DATE/TIME COLLECTED: 2-2-09 1040 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~ DC
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - 250 mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

WELL PURGING DATA

Date	2-2-09	Well Depth (ft BTOC)	108.90
Time Started	1015	Depth to Water (ft BTOC)	74.80
Time Completed	1040	Water Column Length	34.1
PID Measurements		Well Casing Volume (per ft)	5.62
Background	0.0 ppm	Volume of Water in Well (L)	191.64
Breathing Zone	0.0 ppm	Casing Volumes to Purge	–
Well Head	0.0 ppm	Minimum to Purge (L)	–
Purge Water	0.0 ppm	Actual Purge (L)	5

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
1015	0	7.83	14.87	1.183	0.76	-147.6	9.7	74.88	.200
1020	1	7.86	15.27	1.199	0.35	-171.0	8.1	75.05	
1025	2	7.92	15.54	1.201	0.23	-182.2	6.8	75.19	
1030	3	7.90	15.61	1.203	0.19	-190.2	6.3	75.35	
1035	4	7.91	15.64	1.204	0.17	-192.3	6.1	75.41	
1040	5	7.91	15.69	1.204	0.15	-195.8	5.5	75.47	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 1' off bottom ~ 108' btoc

Pump Rate = .200 L/min

Well Diameter = 6"

Screen Interval = unk

* bladder controller w/ 4.0 HP gas compressor. Refill/Discharge = 10/15 sec @ 70psi

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

WATER SAMPLE COLLECTION FIELD SHEET

URS

GENERAL INFORMATION

SITE NAME: Melrose AFR LTM — PROJECT NO.: 16170398

SAMPLE NO.: MWL-9 — WELL NO.: MWL-9

DATE/TIME COLLECTED: 1-22-09 0930 — PERSONNEL: D. Converse, M. Shoop

SAMPLE METHOD: bladder pump w/ tubing

SAMPLE MEDIA: Groundwater

SAMPLE QA SPLIT: YES NO — SPLIT SAMPLE NO.: –

SAMPLE QC DUPLICATE: YES NO — DUPLICATE SAMPLE NO.: –

MS/MSD REQUESTED: YES NO — MS/MSD SAMPLE NO.:

SAMPLE CONTAINERS, PRESERVATIVES, ANALYSIS

Sample Container	Preservative	Analysis Requested
~~3 - 40 mL VOAs~~	~~4°C + HCL~~	~~VOCs (8260B)~~
~~3 - 1 L Amber~~	~~4°C~~	~~SVOCs (8270C), Organochlorine Pest. (8081A)~~
~~2 - 500 mL HDPE~~	~~4°C~~	~~Metals (6010B, 6020A, 7470A)*~~
~~1 - 500 mL HDPE~~	~~4°C~~	~~Hexavalent Chromium (7196A)*, Perch. (6850), Bromide, Chloride, Fluoride, Sulfate (9056)~~
~~1 - 500 mL HDPE~~	~~4°C + ZnOAc/NaOH~~	~~Sulfide (9034)~~
~~2 - 250 mL Amber~~	~~4°C~~	~~Explosives (8330)~~
~~1 - 250 mL HDPE~~	~~4°C + H_2SO_4~~	~~TOC (9060), Phosphate (365.2), Ammonia (350.1)~~

DL

2 - 500 mL HDPE	4°C	Metals (6010B, 6020A)*
1 - 500 mL HDPE	4°C	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)
1 - ~~250~~ mL HDPE	4°C + H_2SO_4	TOC (9060), Phosphate (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)

DL 500

WELL PURGING DATA

Date	1-22-09	Well Depth (ft BTOC)	49.93
Time Started	0900	Depth to Water (ft BTOC)	44.70
Time Completed	0930	Water Column Length	5.23
PID Measurements		Well Casing Volume (per ft)	2.47
Background	0.0 ppm	Volume of Water in Well (L)	~~2.47~~ 12.92
Breathing Zone	0.0 ppm	Casing Volumes to Purge	–
Well Head	0.0 ppm	Minimum to Purge (L)	–
Purge Water	0.0 ppm	Actual Purge (L)	9

FIELD MEASUREMENTS

Time	Amount Purged (L)	pH	Temperature (Celsius)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Redox (mV)	Turbidity (NTU)	Depth to Water (ft BTOC)	Purge Rate (L/min)
0900	0	7.38	16.43	.650	3.06	159.2	8.3	44.70	.300
0905	1.5	7.43	16.47	.644	2.71	144.0	5.9	44.70	
0910	3	7.48	16.53	.640	2.61	122.0	5.1	44.70	
0915	4.5	7.51	16.58	.637	2.69	107.3	4.8	44.70	
0920	6	7.53	16.63	.636	2.76	96.1	4.1	44.70	
0925	7.5	7.53	16.73	.636	2.80	89.9	3.8	44.70	
0930	9	7.52	16.71	.636	2.89	87.0	3.9	44.70	

FIELD EQUIPMENT AND CALIBRATION

Equipment	Model	Calibration
PID	MiniRAE 2000 PID	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Turbidity Meter	LaMotte 2020	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Quality Meter	YSI 556 Multi-Parameter Probe	~~Twice~~ Daily Calibration Verification also Calibrated Weekly
Water Level Probe	Heron 300'	Checked Against Calibrated Length

GENERAL COMMENTS

Multi-Parameter Probe Unit # YSI 556

Field Parameters Measured in Flow-Through Cell

Pump Placement Depth = 49' ~ 1' from bottom

Pump Rate = .300 L/min

Well Diameter = 4" metal

Screen Interval = unk

* bladder pump controler w/ 4.0 HP gas compr.
– refill / discharge setting 5/10 sec @ ~ 50 PSI.

* Samples for Metals and Hexavalent Chromium will be filtered and preserved @ lab before analyzing.

APPENDIX A.3
DAILY QUALITY CONTROL REPORTS

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DAILY QUALITY CONTROL REPORT

Date	**01/13/09**

Day	S	M	T	W	TH	F	S
			X				

On Site Hours	9.5
Travel Time	1.0
Office Time	0.5

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	1	

Subcontractors on Site:

None.

Equipment on Site:

Melrose AFR Baseline LTM Kickoff Meeting Handouts.

Visitors on Site:

Hugh Hanson, Jerry Pelfrey (Cannon AFB Environmental), Gerry Foisie (Melrose AFR Operations), Rick Crow, Kerry Hubbel (Cannon/Melrose Natural Resources)

URS Personnel on Site:

Dean Converse, Mike Shoop, Jeff Voelker

Field Work Performed (including sampling):

-Kickoff Meeting.

-Site orientation and drive through tour of Melrose AFR.

Quality Control Activities (including field calibration):

None.

Health and Safety and Activities:

Discussed H&S needs during surveying, water level round, and sampling activities. Fire hazards due to driving activities and operating gas powered compressor in the field are present. Hazards present in impact area include UXO and metal debris discussed.

Observations/Problems Encountered/Corrective Action Taken:

At kickoff meeting, items discussed include: escorts needed for all areas of range, URS needs 4x4 for field work, IDW storage location onsite, procedures for entering/sampling in impact area (safety meeting at range ops checking bldg), UXO and field work safety necessities and requirements, sampling schedule, and meeting locations.

Office Work Performed:

DQCR

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	**01/14/09**

Day	S	M	T	W	TH	F	S
				X			

On Site Hours	9.5
Travel Time	1.0
Office Time	0.5

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	2	

Subcontractors on Site:

Karl King (Lydick)

Equipment on Site:

Surveying GPS equipment (Lydick), Heron 300' water level indicator, decon equip. (DI water, non-phosphate soap, buckets, towels), PPE, H&S equip., portable GPS unit, misc. hand tools.

Visitors on Site:

Hugh Hanson (Cannon AFB Environmental), Kerry Hubbel (Cannon/Melrose Natural Resources)

URS Personnel on Site:

Dean Converse, Mike Shoop, Jeff Voelker

Field Work Performed (including sampling):

Surveying, well inspection, and water level round.

Quality Control Activities (including field calibration):

Surveyor set base position on Mesa and collected benchmark coordinates before beginning surveying of wells.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-At multiple wells DTB readings difficult to obtain (wells deep with lots of soft sediment at bottom). Spend extra time carefully to obtain best approximate DTB.

-Several wells are locked with no keys available. Jerry Pelfrey (Cannon AFB) gave permission to cut locks off. Will need stronger lock cutter for some of the locks.

-At several wells within AOC 1, AOC2, and SWMU 114 area, 55-gallon drums containing purge water from past sampling rounds (~2004-2007) remain. Will contact J. Pelfrey concerning drums.

Office Work Performed:

DQCR

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date **01/15/09**

Day	S	M	T	W	TH	F	S
					X		

On Site Hours	9.5
Travel Time	1.0
Office Time	0.5

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32 X	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	3	

Subcontractors on Site:

Karl King (Lydick)

Equipment on Site:

Surveying GPS equipment (Lydick), Heron 300' water level indicator, decon equip. (DI water, non-phosphate soap, buckets, towels), PPE, H&S equip., portable GPS unit, misc. hand tools.

Visitors on Site:

Hugh Hanson (Cannon AFB Environmental), Kerry Hubbel (Cannon/Melrose Natural Resources)

URS Personnel on Site:

Dean Converse, Mike Shoop, Jeff Voelker

Field Work Performed (including sampling):

Surveying, well inspection, and water level round.

Quality Control Activities (including field calibration):

Surveyor set base position on Mesa before beginning surveying of wells.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-At multiple wells DTB readings difficult to obtain (wells deep with lots of soft sediment at bottom). Spend extra time carefully to obtain best approximate DTB.

-At MWQ-18 location, MWQ-19 was found within same riser. No records of sampling MWQ-19 but appears to be a ~200' DTB with W.L. @ ~101' BTOC. Will plan on adding MWQ-19 to sampling round.

-Wells located in AOC 1 (4) in area of possible UXO and lots of debris hazardous to vehicle access. Will develop strategy on accessing wells utilitzing UXO safety procedures and avoidance of vehicle hazards.

Office Work Performed:

DQCR

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/16/09

Day	S	M	T	W	TH	F	S
						X	

On Site Hours	8.5
Travel Time	1.0
Office Time	1.5

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32 X	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	4	

Subcontractors on Site:

Karl King (Lydick)

Equipment on Site:

Surveying GPS equipment (Lydick), Heron 300' water level indicator, decon equip. (DI water, non-phosphate soap, buckets, towels), PPE, H&S equip., portable GPS unit, misc. hand tools.

Visitors on Site:

Hugh Hanson (Cannon AFB Environmental), Rick Chandler (Cannon/Melrose Natural Resources)

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Surveying, well inspection, and water level round.

Quality Control Activities (including field calibration):

Surveyor set base position on Mesa before beginning surveying of wells.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-At multiple wells DTB readings difficult to obtain (wells deep with lots of soft sediment at bottom). Spend extra time carefully to obtain best approximate DTB.

-Multiple MWL wells (MWL-1, 2, 3, 8) are inactive windmill wells but have remaining parts (sucker rods) in well. MWL-2 parts are above W.L. so no W.L. or DTB could be obtained. Will not sample these 4 wells due to hazard to sampling equipment and unknown parts may alter sampling results.

-Received permission from J. Pelfrey to dump 55-gallon drums full of old purge water and URS may use the drums for storing purge water from LTM round. Three drums collected and moved to designated IDW storage area (near MWQ-2).

Office Work Performed:

DQCR

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	**01/19/09**

Day	S	M	T	W	TH	F	S
		X					

On Site Hours	6.5
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32	32-50 X	50-70 X	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	5	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

None.

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Set up for upcoming Initial Baseline LTM Monitoring Well monitoring and sampling round. Placed IDW 55-gallon drums (3) in designated IDW storage area and labeled according to requirements.

Quality Control Activities (including field calibration):

Calibrated turbidity meter, PID, water level indicator, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had the initial H&S meeting with all personnel on site. Field activities for sampling and the associated hazards were discussed. Route to hospital, PPE, and activity hazard analysis was also discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

None.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/20/09

Day	S	M	T	W	TH	F	S
			X				

On Site Hours	8.5
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32	32-50	50-70 X	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	6	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources)

URS Personnel on Site:

Dean Converse

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

MWQ-10	MWQ-10 Split	MWQ-60 (Dup)
MWQ-7	MWQ-7 Split	MWQ-57 (Dup)
MWQ-6	MWQ-6 MS/MSD	

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had additional initial H&S meeting with all new personnel on site. Field activities for sampling and the associated hazards were discussed. Route to hospital, PPE, and activity hazard analysis was also discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-MWQ-10, MWQ-7, and MWQ-6 have dedicated, submersible pumps accessible from underground vaults. Water level (W.L.) and depth to bottom (DTB) readings for wells are not achievable.

-MWQ-8 was visited again for attempts for W.L. and DTB readings. Well was verified dry with dtb ~111.0 btoc.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/21/09

Day	S	M	T	W	TH	F	S
				X			

On Site Hours	8.5
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32	32-50 X	50-70 X	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	7	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources)

URS Personnel on Site:

Dean Converse

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

MWQ-2	MWQ-2 MS/MSD
MWQ-3	MWQ-53 (Dup)

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-MWQ-3 has dedicated, submersible pump accessible from underground vault. W.L. and DTB reading is not achievable.

-At MWQ-2 problems pulling water with bladder pump. DTB ~240 BTOC. After pulling pump and tubing, inspecting connections, and performing troubleshooting proceedures for pump, it was discovered 1 of 2 ball bearings for check valves was missing. Repaired pump and resumed successfully monitoring and sampling.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/22/09

Day	S	M	T	W	TH	F	S
					X		

On Site Hours	9.0
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32	32-50 X	50-70 X	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	8	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources), Hugh Hanson (Cannon AFB Environmental)

URS Personnel on Site:

Dean Converse

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

MWL-9	MWQ-19
MWQ-18	MWQ-20

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-MWL-9 metal stick-up riser with no lid or riser. Old windmill well with parts removed.

-MWQ-18 and MWQ-19 (2" PVC wells) share one, metal stick-up riser.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/23/09

Day	S	M	T	W	TH	F	S
						X	

On Site Hours	9.5
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32	32-50 X	50-70 X	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	9	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources), Hugh Hanson (Cannon AFB Environmental)

URS Personnel on Site:

Dean Converse

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

MWQ-21 MWQ-5

MWQ-22

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

The following composite soil samples (TCLP-Lead) were collected at Cannon AFB after water sampling was completed for day.

Drum No. 1-Soil Drum No. 2-Soil

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-MWQ-5 has dedicated, submersible pump accessible from underground vault. W.L. and DTB reading is not achievable.

-MWQ-21 and MWQ-22 (2" PVC wells) share one, metal stick-up riser. During purge for MWQ-22, large amounts of air observed coming from water line. Stopped sampling, pulled pump, and replaced bladder (cracked). Resumed purging and successfully collected sample.

-Collected 2 TCLP-Lead composit soil samples for 2 drums containing soil borings @ Cannon AFB for different project.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/26/09

Day	S	M	T	W	TH	F	S
		X					

On Site Hours	9.0
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun	Clear	Overcast	Rain	Snow
			X		
Temp	To 32	32-50	50-70	70-85	85 up
	X				
Wind	Still	Moderate	High	**Report No.**	
			X	10	
Humidity	Dry	Moderate	Humid		
	X				

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, magnetic locater, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources)

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

M114MW004 M114MW002

M114MW001

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibrated turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-Sampling began within Impact Area where possible ordnance concerns exist. M. Shoop swept accessible paths with magnetic locator while flagging transportation path boundaries and anomalies to be avoided.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/27/09

Day	S	M	T	W	TH	F	S
			X				

On Site Hours	9.0
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun	Clear	Overcast	Rain	Snow
			X		
Temp	To 32	32-50	50-70	70-85	85 up
	X	X			
Wind	Still	Moderate	High	**Report No.**	
			X		
Humidity	Dry	Moderate	Humid	11	
	X				

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, magnetic locater, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources), Hugh Hanson (Cannon AFB Environmental)

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

M114MW003 MAO1MW054

MAO1MW004

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

-Days observations during extreme cold weather: Controller box internal mechanisms will freeze. Will store indoors overnight and inside vehicle during cold weather. Banded tubing will break/tear/split easily during cold weather. Will store inside vehicle while working.

-During sampling of M114MW003, bladder air in water discharge. Stopped sampling, pulled pump and replaced split bladder. PSI may have been to high. Will lower during future sampling.

-Arrived at FedEx and was informed that FedEx plane responsible for shipping overnight packages crashed. No overnight shipments for 1/27. Will store samples overnight on ice and notify Lab and USACE for sample status decision.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/28/09

Day	S	M	T	W	TH	F	S
				X			

On Site Hours	8.0
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun	Clear X	Overcast	Rain	Snow
Temp	To 32	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	12	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, magnetic locater, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources), Hugh Hanson (Cannon AFB Environmental)

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

M114MW003* MAO1MW054* MAO1MW002 MS/MSD

MAO1MW004* MAO1MW002

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

*Jeff Voelker contacted Hector Santiago (USACE) to describe FedEx incident on 1-27 and why no samples were sent on 1-27 (note: Hexavalent Chromium requires analysis within 24hrs of sample collection). It was decided that M114MW003 and MAOMW004 will be repurged and M114MW003, MAO1MW004, and MAO1MW054 will be resampled for Hexavalent Chromium, Perchlorate, and Bromide, Chloride, Fluoride, and Sulfate (1 x 500 mL HDPE). All remaining samples from 1-27 will be ok to send on 1-28. Lab will be notified of events and deviations.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	**01/29/09**

Day	S	M	T	W	TH	F	S
					X		

On Site Hours	8.0
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun	Clear X	Overcast	Rain	Snow
Temp	To 32 X	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	13	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, magnetic locater, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources), Hugh Hanson (Cannon AFB Environmental)

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

MWQ-14	MAO1MW003
MAO1MW001	MAO1MW003 Split

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

None.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	01/30/09

Day	S	M	T	W	TH	F	S
						X	

On Site Hours	8.5
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32 X	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	14	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, magnetic locater, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Rick Chandler (Cannon/Melrose), Hugh Hanson (Cannon AFB Environmental)

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

MAO2MW001D MWL-4

MW117MW002

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

MW117MW002 has ~ 2.5 feet of water column (approx. 6.4 L of water volume). Purging rate was kept at lowest possible (0.100 L/min) to minimize drawdown. During sampling of MW117MW002 water level fell below bladder pump and sampling was stopped. Well water never did 'recharge'. Using a 3' bailer to collect remaining water was attempted but little water with heavy sediment was pulled but discarded (not collected for sample). All sample bottles were filled and collected for MW117MW002, except only 0.5 L for SVOCs and Organochlorine Pesticides was collected (Lab requested 3 L). Lab was notified of event and deviation.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date **02/02/09**

Day	S	M	T	W	TH	F	S
		X					

On Site Hours	8.5
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32 X	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	15	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, magnetic locater, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources)

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

MWL-6	MWL-4*	MWQ-4
MWL-7	MWL-5	

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibrated turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

*Jeff Voelker contacted sampling crew (2-2-09) and informed them that Friday's samples (30-Jan-09) were not analyzed on Saturday (Lab did not have an analyst working). All Hex. Chromium samples will need to be resampled. It was decided that MWL-4 and MAO2MW001D will be repurged and resampled for Hexavalent Chromium analysis depending on specific wells (1 x 500 mL HDPE). MW117MW002 will not be resampled due to lack of water. All remaining samples from 30-Jan-09 will be ok to analyze on 02-Feb-09. Lab will be notified of events and deviations.

-MWQ-4 has dedicated, submersible pump accessible from outflow pipe. W.L. and DTB reading is not achievable.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

DAILY QUALITY CONTROL REPORT

Date	02/03/09

Day	S	M	T	W	TH	F	S
			X				

On Site Hours	4.0
Travel Time	2.0
Office Time	1.0

COE Project Manager	Hector Santiago
URS Project Manager	Jeff Voelker
Project No.	16170398
Contract No.	W9128F-04-D-0001
	T.O. 0071

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	To 32 X	32-50 X	50-70	70-85	85 up
Wind	Still	Moderate	High X	**Report No.**	
Humidity	Dry X	Moderate	Humid	16	

Subcontractors on Site:

None.

Equipment on Site:

Mini RAE PID, Heron 300' water level, QED 1.75" bladder pump, QED MP10H Controller, QED MP40 4.0 HP Compressor (gas driven), disposable bladders, 1/4" OD LDPE banded tubing, 15' 5/8" hose, various flex tubing and fittings, YSI 556, LaMotte turbidity meter, magnetic locater, hand tools, sprayer, deionized water, brushes, buckets, non-phosphate soap, level D PPE, paper towels, portable GPS unit, 40-gallon truck tank, coolers, and sample bottles.

Visitors on Site:

Kerry Hubbel (Cannon/Melrose Natural Resources), Hugh Hanson (Cannon AFB Environmental)

URS Personnel on Site:

Dean Converse, Mike Shoop

Field Work Performed (including sampling):

Initial Baseline LTM Monitoring Well monitoring and sampling round. Wells monitored and associated samples collected:

MAO2MW001D*

-Replaced all locks on MWs that were cut (20) and lids that may have been broken/missing (3).

-Stored all misc. sampling equip. (truck tank, buckets, tubing, tools, etc.) in shed @ IDW Storage Area (R. Crow approved).

-Containerized purge water and decontamination water in appropriate drums at IDW storage area.

Quality Control Activities (including field calibration):

Calibration check turbidity meter, PID, and YSI Multi-Parameter Probe.

Health and Safety and Activities:

-Had a H&S meeting with all personnel on site. Field activities and the associated hazards were discussed.

-Completed Daily Safety Task Analysis Sheet.

Observations/Problems Encountered/Corrective Action Taken:

*Jeff Voelker contacted sampling crew (2-2-09) and informed them that Friday's samples (30-Jan-09) were not analyzed on Saturday (Lab did not have an analyst working). All Hex. Chromium samples will need to be resampled. It was decided that MWL-4 and MAO2MW001D will be repurged and resampled for Hexavalent Chromium analysis depending on specific wells (1 x 500 mL HDPE). MW117MW002 will not be resampled due to lack of water. All remaining samples from 30-Jan-09 will be ok to analyze on 02-Feb-09. Lab will be notified of events and deviations.

Office Work Performed:

DQCR.

By Dean Converse **Title** Field Manager

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TABLE B-1
WELL INSPECTIONS FOR SWMU/AOC MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Well Number	Inspection Date	Proper ID	Well Type	No. of Bollards	Bollards Condition / Placement	Protective Casing	Paint Color / Condition	Well Pad Condition	Cap Type	Cap Vented	Additional Comments
M114MW001	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt.
M114MW002	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt.
M114MW003	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt.
M114MW004	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt.
M117MW001	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt.
M117MW002	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt.
M117MW003	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt.
M117MW004	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt.
MAO1MW001	1/15/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt. Minor erosion around well pad and bollards.
MAO1MW002	1/15/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt. Minor erosion around well pad and bollards.
MAO1MW003	1/15/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt. Minor erosion around well pad and bollards.
MAO1MW004	1/15/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	3	Poor / not in ground	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt. Severe erosion around well pad and bollards.
MAO2MW001D	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	4	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	Yes	Well bottom soft w/ silt.
MAO2MW001S	1/14/2009	Yes w/ ID Tag	Stick up, 4.0" PVC casing	4	Good	Steel w/ locking lid	Orange / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt. No casing cap.
MAO3MW001	1/14/2009	Yes w/ ID Tag	Flush mount, 4.0" PVC casing	0	-	None	White / minor chips	Good	J-Plug	No	Well bottom soft w/ silt. Flush mount.

Notes:
" = Inch
AOC = Area of Concern
ID = Identification
MW = Monitoring Well
No. = Number
PVC = Polyvinyl Chloride
SWMU = Solid Waste Management Unit

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TABLE B-2
WELL INSPECTIONS FOR GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

Well Number	Inspection Date	Proper ID	Well Type	No. of Bollards	Bollards Condition / Placement	Protective Casing	Paint Color / Condition	Well Pad Condition	Cap Type	Cap Vented	Additional Comments
MWQ-1	1/16/2009	Yes but no ID tag	Stick up, 2.0" PVC casing	2	Good	Steel w/ locking lid	Yellow / minor chips	None	J-Plug	No	Well bottom soft w/ silt. Shares 2 bollards with MWQ-2. ID written on PVC or casing cap.
MWQ-2	1/16/2009	Yes but no ID tag	Stick up, 2.0" PVC casing	4	Good	Steel w/ locking lid	Yellow / minor chips	Good	J-Plug	No	Well bottom soft w/ silt. ID written on PVC or casing cap.
MWQ-3	1/14/2009	No w/ no ID tag	Dedicated submersible pump with steel stick up and underground vault	0	-	Steel. Not accessible	None	None	None	-	Protective casing inaccessible to view inner well casing.
MWQ-4	1/16/2009	No w/ no ID tag	Dedicated submersible pump with stick up, 6.0" PVC casing	0	-	None	None	None	None	-	Solar powered. No protective casing. Submersible pump held on top of PVC well casing.
MWQ-5	1/16/2009	No w/ no ID tag	Dedicated submersible pump with steel stick up and underground vault	0	-	Steel. Not accessible	None	None	None	-	Protective casing inaccessible to view inner well casing.
MWQ-6	1/15/2009	No w/ no ID tag	Dedicated submersible pump with steel stick up and underground vault	0	-	Steel. Not accessible	None	None	None	-	Protective casing inaccessible to view inner well casing.
MWQ-7	1/15/2009	No w/ no ID tag	Dedicated submersible pump with steel stick up and underground vault	0	-	Steel. Not accessible	None	None	None	-	Protective casing inaccessible to view inner well casing.
MWQ-8	1/15/2009	No w/ no ID tag	Concrete stick up, 6.0" steel casing	0	-	Concrete	None	Poor	None	-	Well bottom soft w/ silt. Severe erosion around well pad.
MWQ-10	1/15/2009	No w/ no ID tag	Dedicated submersible pump with steel stick up and underground vault	0	-	Steel. Not accessible	None	None	None	-	Protective casing inaccessible to view inner well casing.
MWQ-14	1/15/2009	No w/ no ID tag	Stick up, 4.0" PVC casing	3	Good	Steel w/ locking lid	Faded	Good	Slip Cap	No	Well bottom soft w/ silt. Double cased PVC. Inner most casing moves, may be broken below ground.
MWQ-18	1/15/2009	No w/ no ID tag	Stick up, 2.0" PVC casing	4	Poor / not in ground	Steel w/ locking lid	Yellow / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt. Slight erosion around pad. MWQ-18 & MWQ-19 share same steel casing.
MWQ-19	1/15/2009	No w/ no ID tag	Stick up, 2.0" PVC casing	4	Poor / not in ground	Steel w/ locking lid	Yellow / minor chips	Good	Slip Cap	No	Well bottom soft w/ silt. Slight erosion around pad. MWQ-18 & MWQ-19 share same steel casing.
MWQ-20	1/15/2009	No w/ no ID tag	Stick up, 2.0" PVC casing	4	Poor / not in ground	Steel w/ locking lid	Yellow / minor chips	Good	J-Plug	No	Well bottom soft w/ silt. Slight erosion around pad.
MWQ-21	1/16/2009	Yes but no ID tag	Stick up, 2.0" PVC casing	0	-	Steel w/ locking lid	Yellow / minor chips	Good	J-Plug	No	Well bottom soft w/ silt. ID written on PVC or casing cap. Slight erosion around pad. MWQ-21 & MWQ-22 share same steel casing.
MWQ-22	1/16/2009	Yes but no ID tag	Stick up, 2.0" PVC casing	0	-	Steel w/ locking lid	Yellow / minor chips	Good	J-Plug	No	Well bottom soft w/ silt. ID written on PVC or casing cap. Slight erosion around pad. MWQ-21 & MWQ-22 share same steel casing.
MWL-1	1/16/2009	No w/ no ID tag	Stick up, 2.0" sucker rod steel casing inside larger steel casing.	0	-	Steel	None	Poor	None	-	Old windmill well w/ sucker rod (2" inner steel casing) still present; restricting water level and DTB accessibility. Minor erosion around cracked well pad.
MWL-2	1/16/2009	No w/ no ID tag	Stick up, 2.0" sucker rod steel casing inside larger steel casing.	0	-	Steel	None	Good	None	-	Old windmill well w/ sucker rod (2" inner steel casing) still present; restricting water level and DTB accessibility. Severe erosion around well pad.
MWL-3	1/16/2009	No w/ no ID tag	Stick up, 2.0" sucker rod steel casing inside larger steel casing.	0	-	Steel	None	Good	None	-	Old windmill well w/ sucker rod (2" inner steel casing) still present; restricting water level and DTB accessibility. Minor erosion around well pad.
MWL-4	1/16/2009	No w/ no ID tag	Stick up, 4.0" steel casing	0	-	None	None	None	None	-	Well bottom soft w/ silt. Old windmill well with all parts removed.
MWL-5	1/16/2009	No w/ no ID tag	Stick up, 5.0" PVC casing	0	-	None	None	None	None	-	Well bottom soft w/ silt.
MWL-6	1/16/2009	No w/ no ID tag	Stick up, 6.0" steel casing	0	-	None	None	Good	None	-	Well bottom soft w/ silt. Old windmill well with all parts removed. Severe erosion around well pad.
MWL-7	1/16/2009	No w/ no ID tag	Stick up, 6.0" steel casing	0	-	None	None	Poor	Slip Cap	Yes	Well bottom soft w/ silt. Old windmill well with all parts removed. Pad has severe cracking. Man-made cap has no locking capabilities.
MWL-8	1/15/2009	No w/ no ID tag	Stick up, 2.0" sucker rod steel casing inside larger steel casing.	0	-	Steel	None	None	None	-	Old windmill well w/ sucker rod (2" inner steel casing) still present; restricting water level and DTB accessibility.
MWL-9	1/15/2009	No w/ no ID tag	Stick up, 5.5" steel casing	0	-	None	None	Poor	None	-	Well bottom soft w/ silt. Severe erosion around well pad.

Notes:

" = Inch ID = Identification MWL = Melrose Air Force Range Water Level Well PVC = Polyvinyl Chloride

DTB = Depth to Bottom No. = Number MWQ = Melrose Air Force Range Water Quality Well

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WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 01

Description: M114MW003

Well Conditions

Well ID tag with locking lid and minor paint chips around protective casing and bollards

Photograph No. 02

Description: MAO1MW004

Well Conditions

Well showing well pad in good condition but with severe erosion around well pad and bollards. Two of bollards are no longer secure in ground.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 03

Description:
MAO2MW002D

Well Conditions

Well showing well pad and bollards in good condition. MAO2MW002S (in background) missing locking casing cap.

Photograph No. 04

Description: MAO3MW001

Well Conditions

Flush mount well type. Well pad and ID tag in good condition with no bollards present.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 05

Description: MWL1

Well Conditions

Well showing old windmill well with pump parts (sucker rod). Sucker rod steel casing (2.0") enclosed in outer steel casing stick up. No painting, ID tags, bollards, locking lid or capping for well.

Photograph No. 06

Description: MWL1

Well Conditions

Well showing old windmill well with pump parts with sucker rod still present. Well pad cracked with native weed overgrowth. Inner sucker rod restricted well access and no sampling was performed.

WELL INSPECTION PHOTOGRAPHIC LOG

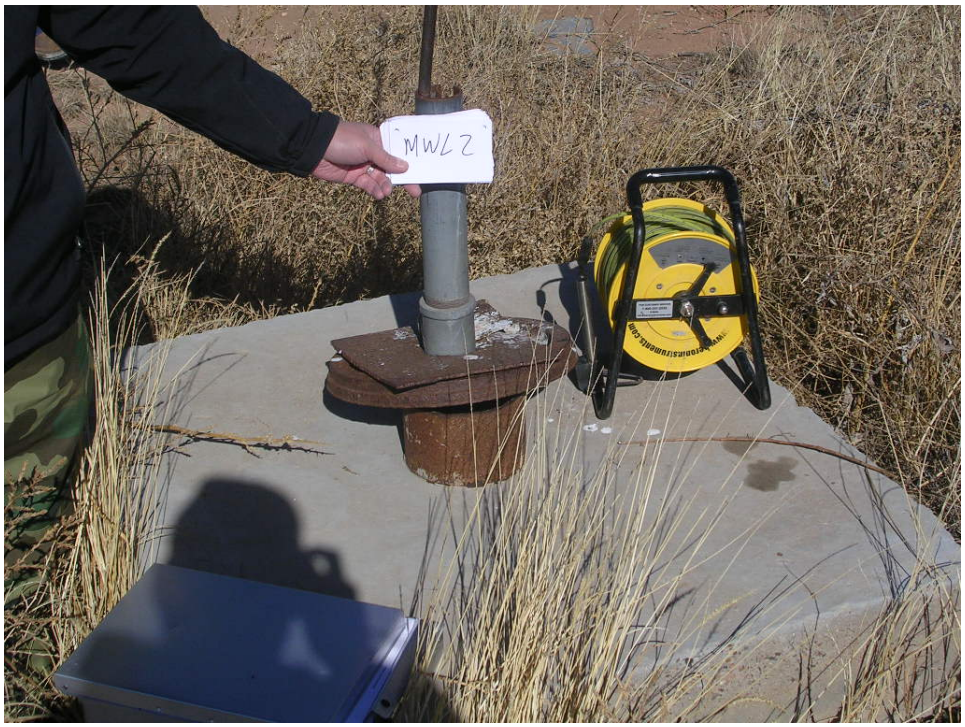
2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 07

Description: MWL2

Well Conditions

Well showing old windmill well with pump parts (sucker rod). Sucker rod steel casing (2.0") enclosed in short, outer steel casing stick up. No painting, ID tags, bollards, locking lid or capping for well.



Photograph No. 08

Description: MWL2

Well Conditions

Well showing old windmill well with sucker rod still present. Well pad in good condition but with severe erosion underneath well pad. Inner sucker rod restricted well access and no sampling was performed.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 09

Description: MWL3

Well Conditions

Well showing old windmill well with pump parts (sucker rod). Sucker rod steel casing (2.0") enclosed in outter steel casing stick up. No painting, ID tags, bollards, locking lid or capping for well.

Photograph No. 10

Description: MWL3

Well Conditions

Well showing old windmill well with sucker rod still present. Well pad in good condition but with minor erosion surrounding well pad. Inner sucker rod restricted well access and no sampling was performed.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 11

Description: MWL4

Well Conditions

Well showing old windmill well with all pump parts (sucker rod) removed. Steel well casing stick up with no protective outter casing, painting, ID tags, well pad, bollards, locking lid or capping for well.

Photograph No. 12

Description: MWL4

Well Conditions

Well showing minor debris surrounding steel well casing.

WELL INSPECTION PHOTOGRAPHIC LOG

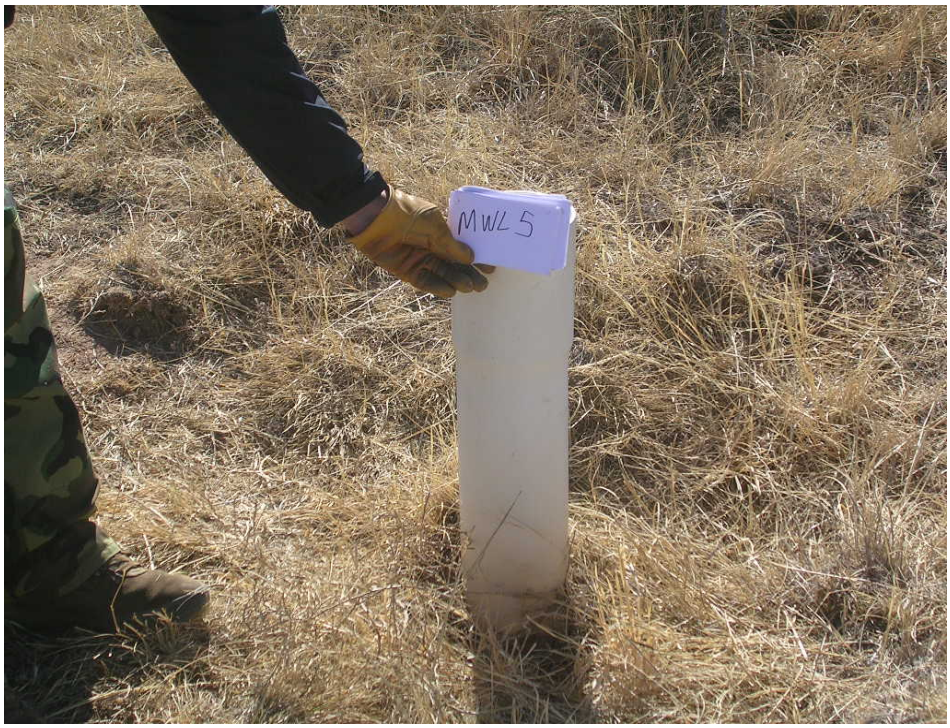
2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 13

Description: MWL5

Well Conditions

Well showing PVC stick up with no protective outter casing, painting, ID tags, well pad, bollards, locking lid or capping for well.

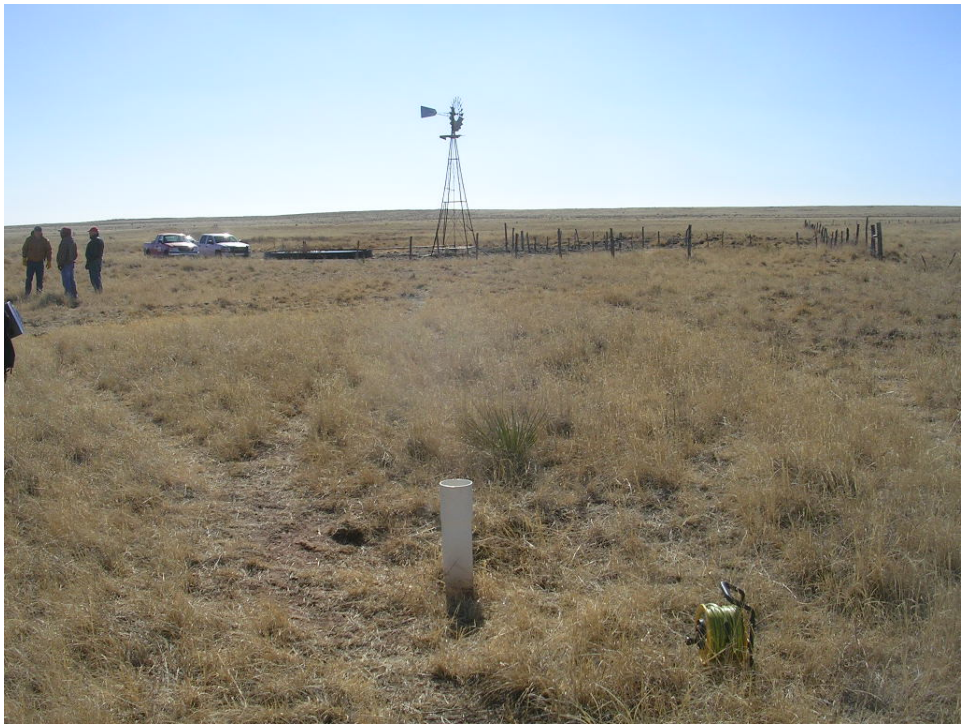


Photograph No. 14

Description: MWL5

Well Conditions

Well showing PVC stick up with no protective outter casing. Location of well near additional windmill well with cattle often grazing in area of MWL5.



WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 15

Description: MWL6

Well Conditions

Well showing old windmill well with all pump parts (sucker rod) removed. Steel well casing stick up with no protective outter casing, painting, ID tags, locking lid or capping for well.

Photograph No. 16

Description: MWL6

Well Conditions

Well showing steel stick up with no protective outter casing. Elevated well pad in good condition except for severe erosion and cattle activitiy near MWL6.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 17

Description: MWL7

Well Conditions

Well showing old windmill well with all pump parts (sucker rod) removed. Steel well casing stick up with no protective outter casing, painting, ID tags, or locking lid for well. MWL7 has man-made vented cap but without locking options.

Photograph No. 18

Description: MWL7

Well Conditions

Well showing steel stick up with no protective outter casing. Well pad has major cracking with minor erosion.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities Melrose AFR, New Mexico	USACE – Omaha District	Contract No. W9128F-04-D-0001 Task Order No. 0071

Photograph No. 19

Description: MWL8

Well Conditions

Well showing old windmill well with pump parts (sucker rod). Sucker rod steel casing (2.0") enclosed in short, outer steel casing stick up. No painting, ID tags, well pad, bollards, locking lid or capping for well. Inner sucker rod restricted well access and no sampling was performed.

Photograph No. 20

Description: MWL9

Well Conditions

Well showing old windmill well with all pump parts (sucker rod) removed. Steel well casing stick up with no protective outter casing, painting, ID tags, bollards, or locking lid. A man-made cap was identified on MWL9. Well pad has severe erosion surround MWL9.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities Melrose AFR, New Mexico	USACE – Omaha District	Contract No. W9128F-04-D-0001 Task Order No. 0071

Photograph No. 21

Description: MWQ2

Well Conditions

Well containing inner PVC well casing with J-plug cap and locking lid on protective steel stick up. No ID tags present with minor paint fading around protective casing and bollards. Well pad and bollards in good condition. Adjacent stick up well (MWQ1) doesn't have ID tags, well pad, or bollards.

Photograph No. 22

Description: MWQ3

Well Conditions

Well containing dedicated submersible pump contained in unaccessible protective steel stick up. Well uses underground vault containing pressure tanks for pumping operations. Well doesn't have ID tags, well pad, bollards or any access to water level measurements. Minor debris and erosion surrounding steel well stick up and underground vault.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 23

Description: MWQ3

Well Conditions

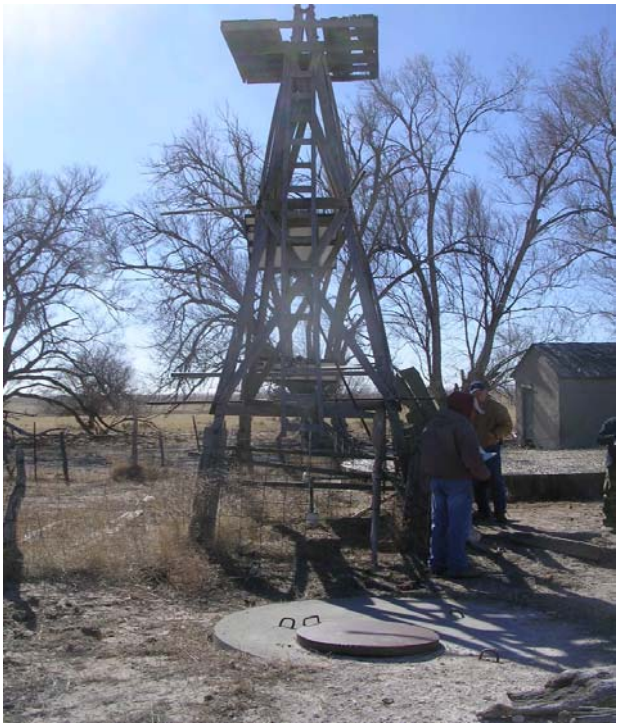
Underground vault contained protective lid and pressure tanks with outflow vaulve which was used for purging and sampling.

Photograph No. 24

Description: MWQ4

Well Conditions

Well containing solar powered, dedicated submersible pump contained in PVC stick up casing. Well has underground vault but contained no pumping equipment. Well doesn't have ID tags, protective casing, well pad, or bollards. PVC stick up casing difficult to access due to windmill design and protective barbed wire surrounding well (deterant for nearby cattle).



WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 25

Description: MWQ4

Well Conditions

Solar powered, dedicated, submersible pump with PVC stick up casing had discharge pipe (approx 5/8") flowing to holding tank. Dedicated pump, sitting in PVC stick up, could be lifted to access inner well; however, pump parts are placed above water level and water level readings couldn't be obtained. Purging and sampling was completed via discharge pipe.

Photograph No. 26

Description: MWQ8

Well Conditions

Well showing old windmill/irrigation well with all pump parts removed. Well contains a concrete, stick up protective casing with an inner steel well casing. Well has no painting, ID tags, bollards, or locking well cap or lid. Inner steel casing is in poor condition (rusted) and well pad is broken with severe erosion below pad.

WELL INSPECTION PHOTOGRAPHIC LOG

2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 27

Description: MWQ14

Well Conditions

Well contains a PVC inner casing stick up with a double steel cased protective casings. Protective casing has faded paint and no ID tags. Inner PVC casing has slip cap but is not vented. Well pad and bollards are in good condition. Inner PVC casing isn't secure (loosely wobbels) and may be broken below ground surface.

Photograph No. 28

Description: MWQ18/19

Well Conditions

Well containing 2-inner PVC well casing (MWQ18 and MWQ19 share one protective casing) with unvented slip caps and a locking lid on the protective steel stick up. No ID tags present with minor paint fading around protective casing. Four bollards exisit but are not inserted into ground. Well pad in good condition with minor erosion.

WELL INSPECTION PHOTOGRAPHIC LOG

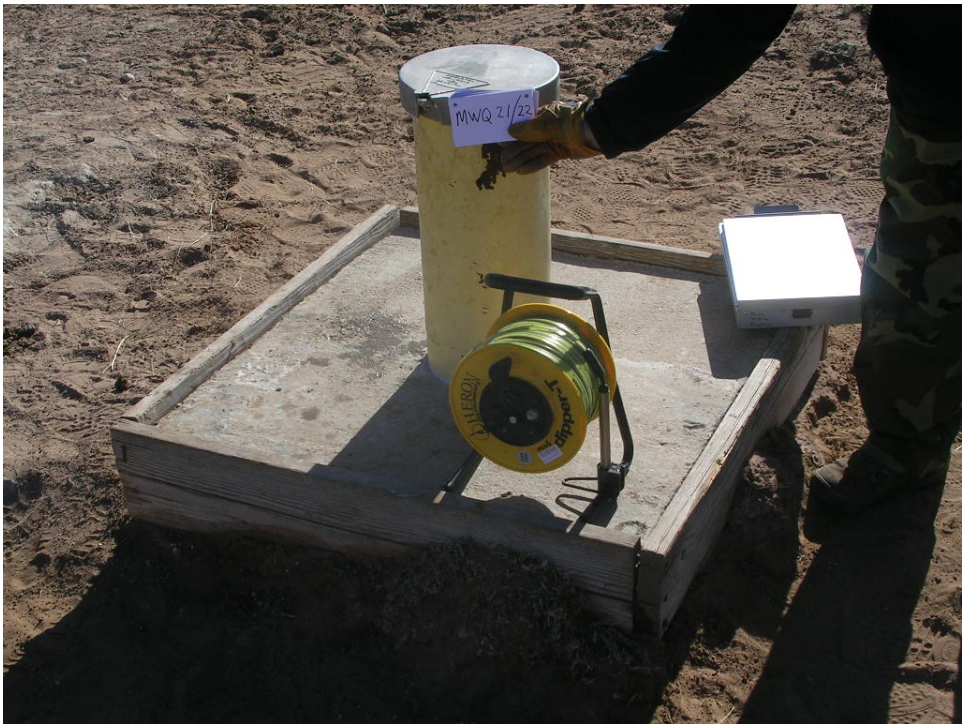
2009 Initial Baseline LTM Field Activities **Melrose AFR, New Mexico**	**USACE – Omaha District**	**Contract No. W9128F-04-D-0001** **Task Order No. 0071**

Photograph No. 29

Description: MWQ21/22

<u>Well Conditions</u>

Well containing 2-inner PVC well casing (MWQ21 and MWQ22 share one protective casing) with unvented J-plug caps and a locking lid on the protective steel stick up. No ID tags or bollards present with minor paint fading around protective casing. Well pad in good condition with minor erosion.



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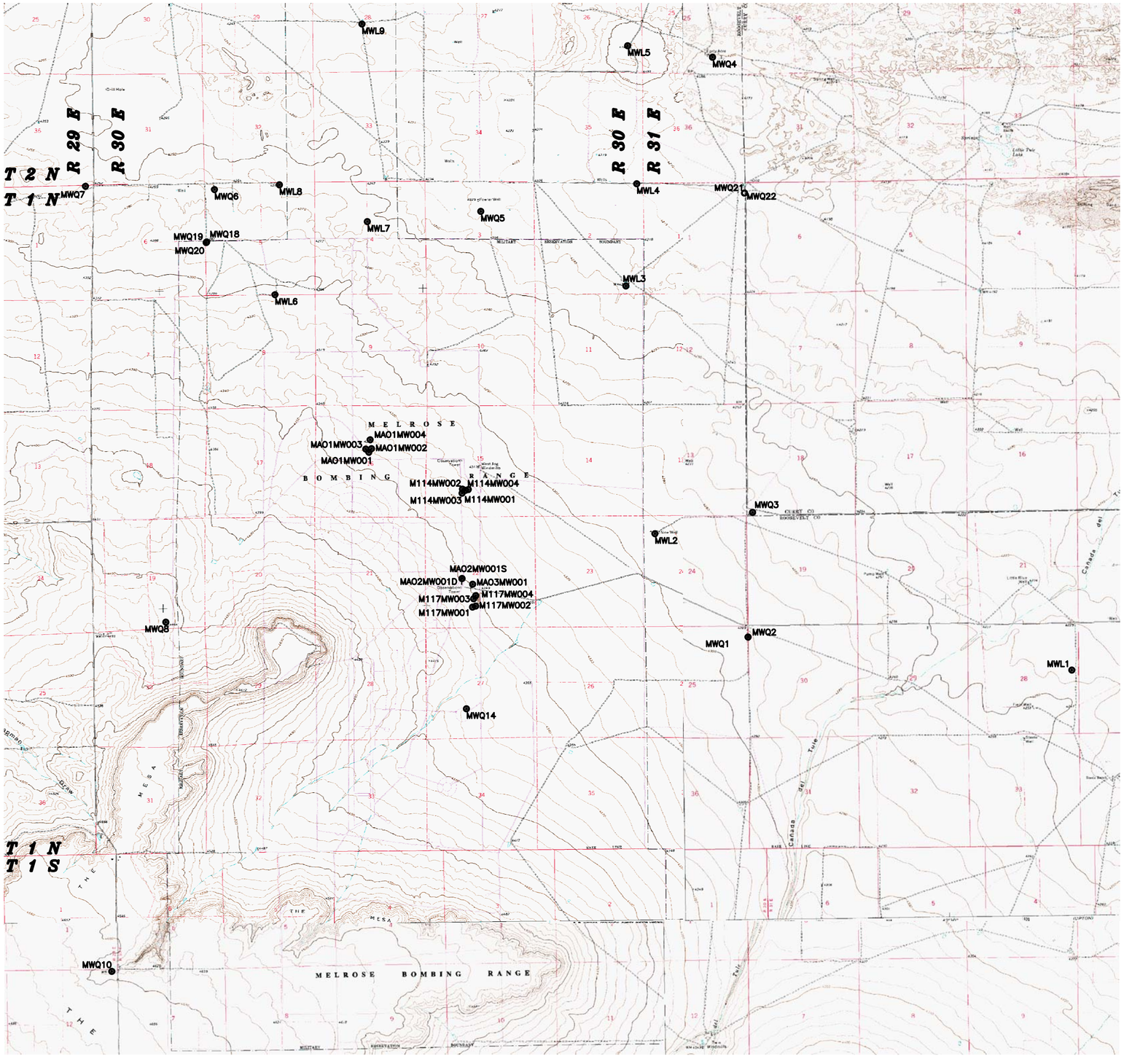
ROBERT L. LYDICK
ROBERT CHAD LYDICK
PROFESSIONAL ENGINEER AND
LAND SURVEYOR

Lydick
ENGINEERS AND SURVEYORS, INC.
205 E. SECOND STREET – P.O. BOX 728
505 762-3771 – FAX 505 762-9093

REGISTERED
New Mexico
Texas - Oklahoma
Colorado

USAF Melrose Bombing Range
2009 Monitor Well Survey Data
Date Surveyed: January 14-16, 2009
Horizontal Datum: New Mexico State Plane (East Zone), NAD 83
Vertical Datum: NAVD 88

PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION	ELEVATION LOCATION
1	1,202,483.72	720,585.46	4,271.04	MWQ3	TOP OF CAP
2	1,199,306.53	706,657.01	4,356.20	MAO2MW001D	TOP OF PVC CASING
3	1,199,311.35	706,662.83	4,355.78	MAO2MW001S	TOP OF PVC CASING
4	1,203,578.49	706,964.14	4,324.78	M114MW004	TOP OF PVC CASING
5	1,203,539.43	706,828.76	4,327.02	M114MW001	TOP OF PVC CASING
6	1,203,596.64	706,681.53	4,327.95	M114MW002	TOP OF PVC CASING
7	1,203,400.28	706,663.40	4,329.46	M114MW003	TOP OF PVC CASING
8	1,199,036.28	707,170.57	4,350.11	MAO3MW001	TOP OF PVC CASING
9	1,197,940.69	707,165.34	4,359.75	M117MW001	TOP OF PVC CASING
10	1,197,989.26	707,316.92	4,357.67	M117MW002	TOP OF PVC CASING
11	1,198,489.29	707,317.84	4,353.88	M117MW004	TOP OF PVC CASING
12	1,198,339.13	707,217.53	4,355.55	M117MW003	TOP OF PVC CASING
13	1,193,064.49	706,872.77	4,381.87	MWQ14	TOP OF INSIDE PVC CASING
14	1,205,963.65	702,258.79	4,342.71	MAO1MW004	TOP OF PVC CASING
15	1,205,536.25	702,322.91	4,343.38	MAO1MW002	TOP OF PVC CASING
16	1,205,363.11	702,194.75	4,344.47	MAO1MW001	TOP OF PVC CASING
17	1,205,516.65	702,048.36	4,345.11	MAO1MW003	TOP OF PVC CASING
18	1,197,219.06	692,465.84	4,469.43	MWQ8	TOP OF CONCRETE
19	1,180,475.36	689,876.48	4,641.83	MWQ10	NUT ON TOP OF WELLHEAD
20	1,218,116.78	688,614.17	4,262.61	MWQ7	NUT ON TOP OF WELLHEAD
21	1,217,958.43	694,797.07	4,272.88	MWQ6	NUT ON TOP OF WELLHEAD
22	1,218,187.51	697,908.54	4,262.06	MWL8	TOP OF SUCKER ROD CASING
23	1,225,896.17	701,866.16	4,241.81	MWL9	TOP OF STEEL CASING
24	1,215,416.92	694,400.57	4,289.97	MWQ20	TOP OF PVC CASING
25	1,215,440.95	694,418.66	4,289.99	MWQ18	TOP OF PVC CASING
26	1,215,440.76	694,418.39	4,289.92	MWQ19	TOP OF PVC CASING
27	1,212,918.43	697,696.87	4,304.61	MWL6	TOP OF STEEL CASING
28	1,216,423.47	702,122.39	4,258.30	MWL7	TOP OF STEEL CASING
29	1,216,914.70	707,560.13	4,234.32	MWQ5	NUT ON TOP OF WELLHEAD
30	1,218,237.96	715,034.08	4,220.88	MWL4	TOP OF STEEL CASING
31	1,217,791.58	720,197.00	4,209.26	MWQ22	TOP OF PVC CASING
32	1,217,791.70	720,196.71	4,209.38	MWQ21	TOP OF PVC CASING
33	1,213,337.34	714,515.51	4,226.98	MWL3	TOP OF SUCKER ROD CASING
34	1,224,854.29	714,598.14	4,196.42	MWL5	TOP OF PVC CASING
35	1,224,301.95	718,666.15	4,203.10	MWQ4	TOP OF PVC CASING
36	1,201,458.20	715,906.56	4,293.23	MWL2	TOP OF SUCKER ROD CASING
37	1,196,505.26	720,371.84	4,293.68	MWQ2	TOP OF PVC CASING
38	1,196,501.91	720,368.68	4,293.56	MWQ1	TOP OF PVC CASING
39	1,194,920.68	735,885.38	4,241.01	MWL1	TOP OF SUCKER ROD CASING



SURVEY OF

USAF MELROSE BOMBING RANGE
MONITOR WELLS
ROOSEVELT COUNTY
NEW MEXICO

MONITIOR WELL SURVEY DATA

PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION	ELEVATION LOCATION
1	1,202,483.72	720,585.46	4,271.04	MWQ3	TOP OF CAP
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38	1,196,501.91	720,368.68	4,293.56	MWQ1	TOP OF PVC CASING
39	1,194,920.68	735,885.38	4,241.01	MWL1	TOP OF SUCKER ROD CASING

NOTES: HORIZONTAL DATUM: NEW MEXICO STATE PLANE (EAST ZONE)
REFERENCE FRAME: NAD_83 (CORS96)

VERTICAL DATUM: NAVD88

ALL COORDINATES SHOWN ARE GRID COORDINATES. NO SCALE FACTOR WAS APPLIED AT THE TIME OF THIS SURVEY.

ELEVATIONS SHOWN WERE TAKEN AT THE "ELEVATION LOCATION" DESCRIBED IN THE ABOVE TABLE

MONITOR WELL NUMBERING SYSTEM WAS ARBITRARILY SET IN THE FIELD AT THE TIME OF THIS SURVEY

USGS QUAD MAP OVERLAY IS FOR REFERENCE PURPOSES ONLY.

ORIGINAL SURVEY WAS CONDUCTED ON JANUARY 14–16, 2009

N

2500 0 2500 7500

SCALE: 1" = 2500'

SURVEYORS CERTIFICATE

I HEREBY CERTIFY THAT THE SURVEY DATA SHOWN ON THIS PLAT ACCURATELY REPRESENTS SURVEY DATA COLLECTED IN THE FIELD UNDER MY SUPERVISION AND IT IS CORRECT TO THE BEST OF MY KNOWLEDGE.

P.E. AND L.S. NO. 5955

PLAT NO. 21075

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: RCL
DRAWN BY: BCR
SHEET CHK'D BY:
CROSS CHK'D BY:
APPROVED BY: RCL
DATE: FEBRUARY 18, 2009

LYDICK ENGINEERS & SURVEYORS
205 EAST SECOND STREET
CLOVIS, NEW MEXICO 88101
(505) 762-3771

ROBERT CHAD LYDICK, REGISTERED PROFESSIONAL SURVEYOR, NEW MEXICO 5955

USAF MELROSE BOMBING RANGE
ROOSEVELT COUNTY, NEW MEXICO

MONITOR WELL LOCATIONS

SURVEY DATA

PROJECT NO.
FILE NAME:

SHEET NO.
C-100

APPENDIX D

Summary of Analytical Data, Automated Data Reviews (On Enclosed CD-ROM), and Chains of Custody

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TABLE D-1
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW001				M114MW002				M114MW003*				M114MW004			
DATE COLLECTED			January 26, 2009				January 26, 2009				January 27, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)																		
1,1,1,2-Tetrachloroethane	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
1,1,1-Trichloroethane	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
1,1,2,2-Tetrachloroethane	ND	0 / 4	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U
1,1,2-Trichloroethane	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
1,1-Dichloroethane	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
1,1-Dichloroethene	ND	0 / 4	<	3.00E-01	1.00E+00	U	<	3.00E-01	1.00E+00	U	<	3.00E-01	1.00E+00	U	<	3.00E-01	1.00E+00	U
1,1-Dichloropropene	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
1,2,3-Trichlorobenzene	ND	0 / 4	<	2.90E-01	1.00E+00	U	<	2.90E-01	1.00E+00	U	<	2.90E-01	1.00E+00	U	<	2.90E-01	1.00E+00	U
1,2,3-Trichloropropane	ND	0 / 4	<	3.90E-01	2.00E+00	U	<	3.90E-01	2.00E+00	U	<	3.90E-01	2.00E+00	U	<	3.90E-01	2.00E+00	U
1,2,4-Trichlorobenzene	ND	0 / 4	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U
1,2,4-Trimethylbenzene	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
1,2-Dibromo-3-Chloropropane	ND	0 / 4	<	7.60E-01	2.00E+00	U	<	7.60E-01	2.00E+00	U	<	7.60E-01	2.00E+00	U	<	7.60E-01	2.00E+00	U
1,2-Dibromoethane (Ethylene Dibromide)	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
1,2-Dichlorobenzene	ND	0 / 4	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U
1,2-Dichloroethane	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
cis-1,2-Dichloroethene (cis)	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
1,2-Dichloroethene (trans)	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
1,2-Dichloropropane	ND	0 / 4	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U
1,3,5-Trimethylbenzene	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
1,3-Dichlorobenzene	ND	0 / 4	<	1.10E-01	1.00E+00	U	<	1.10E-01	1.00E+00	U	<	1.10E-01	1.00E+00	U	<	1.10E-01	1.00E+00	U
1,3-Dichloropropane	ND	0 / 4	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U
1,4-Dichlorobenzene	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
2,2-Dichloropropane	ND	0 / 4	<	2.20E-01	1.00E+00	U	<	2.20E-01	1.00E+00	U	<	2.20E-01	1.00E+00	U	<	2.20E-01	1.00E+00	U
2-Chlorotoluene	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
2-Hexanone	ND	0 / 4	<	9.20E-01	1.00E+01	U	<	9.20E-01	1.00E+01	U	<	9.20E-01	1.00E+01	U	<	9.20E-01	1.00E+01	U
4-Chlorotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
4-Methyl-2-Pentanone	ND	0 / 4	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U
Acetone	ND	0 / 4	<	9.50E-01	1.00E+01	U	<	9.50E-01	1.00E+01	U	<	9.50E-01	1.00E+01	U	<	9.50E-01	1.00E+01	U
Benzene	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
Bromobenzene	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
Bromochloromethane	ND	0 / 4	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U
Bromodichloromethane	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
Bromoform	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
Bromomethane	ND	0 / 4	<	2.40E-01	2.00E+00	U	<	2.40E-01	2.00E+00	U	<	2.40E-01	2.00E+00	U	<	2.40E-01	2.00E+00	U
Carbon Disulfide	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
Carbon Tetrachloride	ND	0 / 4	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U
Chlorobenzene	ND	0 / 4	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U

TABLE D-1
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW001				M114MW002				M114MW003*				M114MW004			
DATE COLLECTED			January 26, 2009				January 26, 2009				January 27, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
Chloroethane	4.00E-01 J	1 / 4	4.00E-01	2.10E-01	1.00E+00	J	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U
Chloroform	ND	0 / 4	<	7.00E-02	1.00E+00	U	<	7.00E-02	1.00E+00	U	<	7.00E-02	1.00E+00	U	<	7.00E-02	1.00E+00	U
Chloromethane	ND	0 / 4	<	3.10E-01	1.00E+00	U	<	3.10E-01	1.00E+00	U	<	3.10E-01	1.00E+00	U	<	3.10E-01	1.00E+00	U
cis-1,3-Dichloropropene	ND	0 / 4	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U
Dibromomethane	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
Dichlorodifluoromethane	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
Ethylbenzene	ND	0 / 4	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U
Hexachlorobutadiene	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
Isopropylbenzene (Cumene)	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
m,p-Xylene (sum of isomers)	ND	0 / 4	<	1.90E-01	2.00E+00	U	<	1.90E-01	2.00E+00	U	<	1.90E-01	2.00E+00	U	<	1.90E-01	2.00E+00	U
Methyl Ethyl Ketone (2-Butanone)	ND	0 / 4	<	6.00E-01	1.00E+01	U	<	6.00E-01	1.00E+01	U	<	6.00E-01	1.00E+01	U	<	6.00E-01	1.00E+01	U
Methyl t-Butyl Ether	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
Methylene Chloride	ND	0 / 4	<	3.50E-01	5.00E+00	U	<	3.50E-01	5.00E+00	U	<	3.50E-01	5.00E+00	U	<	3.50E-01	5.00E+00	U
Naphthalene	ND	0 / 4	<	3.60E-01	1.00E+00	U	<	3.60E-01	1.00E+00	U	<	3.60E-01	1.00E+00	U	<	3.60E-01	1.00E+00	U
n-Butylbenzene	ND	0 / 4	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U
n-Propylbenzene	ND	0 / 4	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U
o-Xylene (1,2-Dimethylbenzene)	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
p-Cymene (p-Isopropyltoluene)	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
sec-Butylbenzene	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
Styrene	ND	0 / 4	<	2.50E-01	1.00E+00	U	<	2.50E-01	1.00E+00	U	<	2.50E-01	1.00E+00	U	<	2.50E-01	1.00E+00	U
tert-Butylbenzene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
Tetrachloroethene	ND	0 / 4	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U
Toluene	3.00E-01 J	2 / 4	2.00E-01	1.70E-01	1.00E+00	J	<	1.70E-01	1.00E+00	U	3.00E-01	1.70E-01	1.00E+00	J	<	1.70E-01	1.00E+00	U
trans-1,3-Dichloropropene	ND	0 / 4	<	1.80E-01	1.00E+00	U	<	1.80E-01	1.00E+00	U	<	1.80E-01	1.00E+00	U	<	1.80E-01	1.00E+00	U
Trichloroethene	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
Trichlorofluoromethane	ND	0 / 4	<	2.40E-01	1.00E+00	U	<	2.40E-01	1.00E+00	U	<	2.40E-01	1.00E+00	U	<	2.40E-01	1.00E+00	U
Vinyl Chloride	7.00E-01 J	1 / 4	7.00E-01	2.30E-01	1.00E+00	J	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)																		
1,2,4-Trichlorobenzene	ND	0 / 4	<	1.30E+00	1.00E+01	U	<	1.30E+00	1.00E+01	U	<	1.30E+00	1.00E+01	U	<	1.30E+00	1.00E+01	U
1,2-Dichlorobenzene	ND	0 / 4	<	1.10E+00	1.00E+01	U	<	1.10E+00	1.00E+01	U	<	1.10E+00	1.00E+01	U	<	1.10E+00	1.00E+01	U
1,2-Diphenylhydrazine	ND	0 / 4	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U
1,3-Dichlorobenzene	ND	0 / 4	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U
1,4-Dichlorobenzene	ND	0 / 4	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U
2,4,5-Trichlorophenol	ND	0 / 4	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U
2,4,6-Trichlorophenol	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
2,4-Dichlorophenol	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
2,4-Dimethylphenol	ND	0 / 4	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U
2,4-Dinitrophenol	ND	0 / 4	<	1.80E+00	2.00E+01	U	<	1.80E+00	2.00E+01	U	<	1.80E+00	2.00E+01	U	<	1.80E+00	2.00E+01	U

TABLE D-1
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW001				M114MW002				M114MW003*				M114MW004			
DATE COLLECTED			January 26, 2009				January 26, 2009				January 27, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
2,4-Dinitrotoluene	ND	0 / 4	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U
2,6-Dinitrotoluene	ND	0 / 4	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U
2-Chloronaphthalene	ND	0 / 4	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U
2-Chlorophenol	ND	0 / 4	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U
2-Methylnaphthalene	ND	0 / 4	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U
2-Methylphenol (o-cresol)	ND	0 / 4	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U
2-Nitroaniline	ND	0 / 4	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U
2-Nitrophenol	ND	0 / 4	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U
3,3-Dichlorobenzidine	ND	0 / 4	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U
3-Nitroaniline	ND	0 / 4	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U
3&4-Methylphenol	ND	0 / 4	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U
4,6-Dinitro-2-methylphenol	ND	0 / 4	<	2.20E+00	2.00E+01	U	<	2.20E+00	2.00E+01	U	<	2.20E+00	2.00E+01	U	<	2.20E+00	2.00E+01	U
4-Bromophenyl-phenylether	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
4-Chloro-3-methylphenol	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
4-Chloroaniline	ND	0 / 4	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U
4-Chlorophenyl-phenylether	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
4-Nitroaniline	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Acenaphthene	ND	0 / 4	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U
Acenaphthylene	ND	0 / 4	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U
Anthracene	ND	0 / 4	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U
Benzo(a)anthracene	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
Benzo(a)pyrene	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Benzo(b)fluoranthene	ND	0 / 4	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U
Benzo(g,h,i)perylene	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Benzo(k)fluoranthene	ND	0 / 4	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U
Benzyl Alcohol	ND	0 / 4	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U
bis(2-Chloroethoxy)methane	ND	0 / 4	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U
bis(2-Chloroethyl)ether	ND	0 / 4	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U
bis(2-chloroisopropyl)ether	ND	0 / 4	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U
bis(2-Ethylhexyl)phthalate	ND	0 / 4	<	2.90E+00	2.00E+01	U	<	2.90E+00	2.00E+01	U	<	2.90E+00	2.00E+01	U	<	2.90E+00	2.00E+01	U
Butylbenzylphthalate	ND	0 / 4	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U
Carbazole	ND	0 / 4	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U
Chrysene	ND	0 / 4	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U
Dibenz(a,h)anthracene	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Dibenzofuran	ND	0 / 4	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U
Diethylphthalate	ND	0 / 4	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U
Dimethylphthalate	ND	0 / 4	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U
Di-n-butylphthalate	ND	0 / 4	<	3.20E+00	1.00E+01	U	<	3.20E+00	1.00E+01	U	<	3.20E+00	1.00E+01	U	<	3.20E+00	1.00E+01	U

TABLE D-1
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW001				M114MW002				M114MW003*				M114MW004			
DATE COLLECTED			January 26, 2009				January 26, 2009				January 27, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
Di-n-octylphthalate	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
Fluoranthene	ND	0 / 4	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U
Fluorene	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Hexachlorobenzene	ND	0 / 4	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U
Hexachlorobutadiene	ND	0 / 4	<	9.00E-01	1.00E+01	U	<	9.00E-01	1.00E+01	U	<	9.00E-01	1.00E+01	U	<	9.00E-01	1.00E+01	U
Hexachloroethane	ND	0 / 4	<	8.00E-01	1.00E+01	U	<	8.00E-01	1.00E+01	U	<	8.00E-01	1.00E+01	U	<	8.00E-01	1.00E+01	U
Indeno(1,2,3-cd)pyrene	ND	0 / 4	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U
Isophorone	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Naphthalene	ND	0 / 4	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U
Nitrobenzene	ND	0 / 4	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U
N-Nitrosodimethylamine	ND	0 / 4	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U
N-Nitroso-di-n-propylamine	ND	0 / 4	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U
N-Nitrosodiphenylamine	ND	0 / 4	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U
Pentachlorophenol	ND	0 / 4	<	2.80E+00	2.00E+01	U	<	2.80E+00	2.00E+01	U	<	2.80E+00	2.00E+01	U	<	2.80E+00	2.00E+01	U
Phenanthrene	ND	0 / 4	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U
Phenol	ND	0 / 4	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U
Pyrene	ND	0 / 4	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U
ORGANOCHLORINE PESTICIDES (µg/L)																		
4,4-DDD	ND	0 / 4	<	3.00E-03	5.00E-02	U	<	3.00E-03	5.00E-02	U	<	3.00E-03	5.00E-02	U	<	3.00E-03	5.00E-02	U
4,4-DDE	ND	0 / 4	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U
4,4-DDT	ND	0 / 4	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U
Aldrin	ND	0 / 4	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U
alpha-BHC	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
alpha-Chlordane	ND	0 / 4	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U
beta-BHC	ND	0 / 4	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U
delta-BHC	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
Dieldrin	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
Endosulfan I	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
Endosulfan II	ND	0 / 4	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U
Endosulfan sulfate	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
Endrin	ND	0 / 4	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U
Endrin aldehyde	ND	0 / 4	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U
Endrin ketone	ND	0 / 4	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U
gamma-BHC (Lindane)	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
gamma-Chlordane	ND	0 / 4	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U
Heptachlor	ND	0 / 4	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U
Heptachlor epoxide	ND	0 / 4	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U

TABLE D-1
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW001				M114MW002				M114MW003*				M114MW004			
DATE COLLECTED			January 26, 2009				January 26, 2009				January 27, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
Methoxychlor	ND	0 / 4	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U
Toxaphene	ND	0 / 4	<	3.80E-01	1.00E+00	U	<	3.80E-01	1.00E+00	U	<	3.80E-01	1.00E+00	U	<	3.80E-01	1.00E+00	U
EXPLOSIVES (µg/L)																		
1,3,5-Trinitrobenzene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
1,3-Dinitrobenzene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2,4,6-Trinitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2,4-Dinitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2,6-Dinitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2-Amino-4,6-dinitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2-Nitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
3-Nitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
4-Amino-2,6-dinitrotoluene	ND	0 / 4	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U
4-Nitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
HMX	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
Nitrobenzene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
RDX	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
Tetryl	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
DISSOLVED METALS by 6010B (µg/L)																		
Calcium	4.22E+05	4 / 4	3.90E+05	2.72E+03	1.00E+04		3.03E+05	2.72E+03	1.00E+04		4.22E+05	2.72E+03	1.00E+04		3.73E+05	2.72E+03	1.00E+04	
Magnesium	3.55E+05	4 / 4	3.36E+05	1.29E+03	5.00E+03		2.90E+05	1.29E+03	5.00E+03		3.55E+05	1.29E+03	5.00E+03		3.20E+05	1.29E+03	5.00E+03	
Potassium	1.68E+04	4 / 4	1.68E+04	9.95E+01	1.00E+03		1.54E+04	9.95E+01	1.00E+03		1.66E+04	9.95E+01	1.00E+03		1.57E+04	9.95E+01	1.00E+03	
Sodium	3.27E+06	4 / 4	2.91E+06	1.11E+04	1.00E+05		2.61E+06	1.11E+04	1.00E+05		3.27E+06	1.11E+04	1.00E+05		2.78E+06	1.11E+04	1.00E+05	
Titanium	ND	0 / 4	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U	<	1.70E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U
DISSOLVED METALS by 6020A (µg/L)																		
Antimony	6.50E-01	2 / 4	5.90E-01	1.00E-02	2.00E-01		<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U	6.50E-01	1.00E-02	2.00E-01	
Arsenic	6.50E+00	4 / 4	4.40E+00	9.00E-02	2.00E-01		5.10E+00	9.00E-02	2.00E-01		6.50E+00	9.00E-02	2.00E-01		5.50E-01	9.00E-02	2.00E-01	
Barium	1.75E+01	4 / 4	1.75E+01	4.00E-02	5.00E-01		1.43E+01	4.00E-02	5.00E-01		1.53E+01	4.00E-02	5.00E-01		1.37E+01	4.00E-02	5.00E-01	
Beryllium	5.40E-02 J	3 / 4	<	4.00E-02	2.00E-01	U	5.40E-02	4.00E-02	2.00E-01	J	5.10E-02	4.00E-02	2.00E-01	J	4.50E-02	4.00E-02	2.00E-01	J
Cadmium	5.60E+00	4 / 4	2.80E+00	2.00E-02	2.00E-01		5.30E+00	2.00E-02	2.00E-01		1.30E-01	2.00E-02	2.00E-01	J	5.60E+00	2.00E-02	2.00E-01	
Chromium	7.80E+00	4 / 4	3.00E+00	4.00E-02	5.00E-01		4.30E+00	4.00E-02	5.00E-01		3.60E+00	4.00E-02	5.00E-01		7.80E+00	4.00E-02	5.00E-01	
Chromium III	7.80E+00	4 / 4	3.00E+00	4.00E-02	5.00E-01		4.30E+00	4.00E-02	5.00E-01		3.60E+00	4.00E-02	5.00E-01		7.80E+00	4.00E-02	5.00E-01	
Cobalt	5.50E-01	4 / 4	5.00E-01	3.00E-02	5.00E-01		3.90E-01	3.00E-02	5.00E-01	J	5.50E-01	3.00E-02	5.00E-01		5.20E-01	3.00E-02	5.00E-01	
Copper	6.30E+00	4 / 4	6.30E+00	1.30E-01	5.00E-01		5.90E+00	1.30E-01	5.00E-01		5.70E+00	1.30E-01	5.00E-01		5.80E+00	1.30E-01	5.00E-01	
Lead	1.10E-01	1 / 4	1.10E-01	1.10E-01	2.00E-01		<	1.10E-01	2.00E-01	U	<	1.10E-01	2.00E-01	U	<	1.10E-01	2.00E-01	U
Manganese	4.43E+01	4 / 4	1.88E+01	6.00E-02	5.00E-01		2.50E+00	6.00E-02	5.00E-01		1.64E+01	6.00E-02	5.00E-01		4.43E+01	6.00E-02	5.00E-01	
Mercury	1.10E-01 J	3 / 4	7.70E-02	6.00E-02	2.00E-01	J	1.10E-01	6.00E-02	2.00E-01	J	<	6.00E-02	2.00E-01	U	8.50E-02	6.00E-02	2.00E-01	J
Molybdenum	1.58E+01	4 / 4	1.22E+01	7.00E-02	5.00E-01		1.58E+01	7.00E-02	5.00E-01		8.20E+00	7.00E-02	5.00E-01		1.00E+01	7.00E-02	5.00E-01	

TABLE D-1
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 114
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M114MW001				M114MW002				M114MW003*				M114MW004			
DATE COLLECTED			January 26, 2009				January 26, 2009				January 27, 2009				January 26, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
Selenium	7.21E+01	4 / 4	5.81E+01	1.00E-01	1.00E+00		5.08E+01	1.00E-01	1.00E+00		7.21E+01	1.00E-01	1.00E+00		3.35E+01	1.00E-01	1.00E+00	
Silver	ND	0 / 4	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U
Vanadium	7.50E+00	4 / 4	3.10E+00	7.00E-02	5.00E-01		7.50E+00	7.00E-02	5.00E-01		6.70E+00	7.00E-02	5.00E-01		2.90E+00	7.00E-02	5.00E-01	
Zinc	8.85E+02	4 / 4	4.50E+02	2.30E+00	5.00E+01		5.33E+02	2.30E+00	5.00E+01		4.21E+02	2.30E+00	5.00E+01		8.85E+02	2.30E+00	5.00E+01	
WET CHEMISTRY PARAMETERS (µg/L)																		
Bromide	1.78E+04	4 / 4	1.78E+04	1.25E+03	1.25E+04		1.77E+04	1.25E+03	1.25E+04		1.40E+04	1.25E+03	1.25E+04		1.78E+04	1.25E+03	1.25E+04	
Chloride	4.05E+06	4 / 4	3.87E+06	2.00E+04	2.50E+05		3.34E+06	2.00E+04	2.50E+05		4.05E+06	2.00E+04	1.00E+05		3.96E+06	2.00E+04	2.50E+05	
Hexavalent Chromium	ND	0 / 4	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	U	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ
Fluoride	2.18E+03 J	1 / 4	<	2.00E+03	2.50E+04	U	2.18E+03	2.00E+03	2.50E+04	J	<	2.00E+03	2.50E+04	U	<	2.00E+03	2.50E+04	U
Ammonia	ND	0 / 4	<	1.22E+02	5.00E+02	UJ	<	1.22E+02	5.00E+02	UJ	<	1.22E+02	5.00E+02	U	<	1.22E+02	5.00E+02	UJ
Perchlorate	4.40E+00	4 / 4	2.90E+00	2.00E-01	6.00E-01		2.80E+00	2.00E-01	6.00E-01		4.40E+00	2.00E-01	6.00E-01		2.00E+00	2.00E-01	6.00E-01	
Phosphorus, Total Orthophosphate	ND	0 / 4	<	5.38E+03	2.50E+04	U	<	5.38E+03	2.50E+04	U	<	5.38E+03	2.50E+04	U	<	5.38E+03	2.50E+04	U
Sulfate	2.06E+06	4 / 4	2.01E+06	2.25E+04	2.50E+05		1.82E+06	2.25E+04	2.50E+05		2.06E+06	2.25E+04	1.00E+05		1.98E+06	2.25E+04	2.50E+05	
Sulfide	9.68E+02 J	1 / 4	<	6.00E+02	2.00E+03	U	9.68E+02	6.00E+02	2.00E+03	J	<	6.00E+02	2.00E+03	U	<	6.00E+02	2.00E+03	U
Total Organic Carbon	ND	0 / 4	<	7.00E+01	5.00E+02	UJ	<	7.00E+01	5.00E+02	UJ	<	7.00E+01	5.00E+02	UJ	<	7.00E+01	5.00E+02	UJ

Notes:
*Hexavalent Chromium was re-sampled due to holding time exceedence in the original sample.
µg/L = microgram per Liter
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetra
ID = Identification
J = Estimated
MDL = Method Detectioin Limit
MW = Monitoring Well
ND = Not Detected
Qual = Qualifier
RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine
RL = Reporting Limit
SWMU = Solid Waste Management Unit
U = Nondetect
UJ = Estimated Nondetect

TABLE D-2
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 117
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M117MW002			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)						
1,1,1,2-Tetrachloroethane	ND	0 / 1	<	1.30E-01	1.00E+00	U
1,1,1-Trichloroethane	ND	0 / 1	<	1.40E-01	1.00E+00	U
1,1,2,2-Tetrachloroethane	ND	0 / 1	<	1.00E-01	1.00E+00	U
1,1,2-Trichloroethane	ND	0 / 1	<	2.00E-01	1.00E+00	U
1,1-Dichloroethane	ND	0 / 1	<	1.90E-01	1.00E+00	U
1,1-Dichloroethene	ND	0 / 1	<	3.00E-01	1.00E+00	U
1,1-Dichloropropene	ND	0 / 1	<	2.00E-01	1.00E+00	U
1,2,3-Trichlorobenzene	ND	0 / 1	<	2.90E-01	1.00E+00	U
1,2,3-Trichloropropane	ND	0 / 1	<	3.90E-01	2.00E+00	U
1,2,4-Trichlorobenzene	ND	0 / 1	<	2.10E-01	1.00E+00	U
1,2,4-Trimethylbenzene	ND	0 / 1	<	1.90E-01	1.00E+00	U
1,2-Dibromo-3-Chloropropane	ND	0 / 1	<	7.60E-01	2.00E+00	U
1,2-Dibromoethane (Ethylene Dibromide)	ND	0 / 1	<	2.00E-01	1.00E+00	U
1,2-Dichlorobenzene	ND	0 / 1	<	1.70E-01	1.00E+00	U
1,2-Dichloroethane	ND	0 / 1	<	1.40E-01	1.00E+00	U
1,2-Dichloroethene (cis)	ND	0 / 1	<	1.60E-01	1.00E+00	U
1,2-Dichloroethene (trans)	ND	0 / 1	<	1.90E-01	1.00E+00	U
1,2-Dichloropropane	ND	0 / 1	<	1.70E-01	1.00E+00	U
1,3,5-Trimethylbenzene (Mesitylene)	ND	0 / 1	<	1.20E-01	1.00E+00	U
1,3-Dichlorobenzene	ND	0 / 1	<	1.10E-01	1.00E+00	U
1,3-Dichloropropane	ND	0 / 1	<	1.70E-01	1.00E+00	U
1,4-Dichlorobenzene	ND	0 / 1	<	1.90E-01	1.00E+00	U
2,2-Dichloropropane	ND	0 / 1	<	2.20E-01	1.00E+00	U
2-Chlorotoluene	ND	0 / 1	<	1.40E-01	1.00E+00	U
2-Hexanone	ND	0 / 1	<	9.20E-01	1.00E+01	U
4-Chlorotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
4-Methyl-2-Pentanone	ND	0 / 1	<	1.90E+00	1.00E+01	U
Acetone	ND	0 / 1	<	9.50E-01	1.00E+01	U
Benzene	ND	0 / 1	<	1.60E-01	1.00E+00	U
Bromobenzene	ND	0 / 1	<	1.60E-01	1.00E+00	U
Bromochloromethane	ND	0 / 1	<	1.50E-01	1.00E+00	U
Bromodichloromethane	ND	0 / 1	<	1.40E-01	1.00E+00	U
Bromoform	ND	0 / 1	<	1.40E-01	1.00E+00	U
Bromomethane	ND	0 / 1	<	2.40E-01	2.00E+00	U
Carbon Disulfide	ND	0 / 1	<	2.00E-01	1.00E+00	U
Carbon Tetrachloride	ND	0 / 1	<	1.00E-01	1.00E+00	U
Chlorobenzene	ND	0 / 1	<	2.10E-01	1.00E+00	U
Chloroethane	ND	0 / 1	<	2.10E-01	1.00E+00	U
Chloroform	ND	0 / 1	<	7.00E-02	1.00E+00	U
Chloromethane	ND	0 / 1	<	3.10E-01	1.00E+00	U
cis-1,3-Dichloropropene	ND	0 / 1	<	1.50E-01	1.00E+00	U
Dibromomethane	ND	0 / 1	<	2.00E-01	1.00E+00	U

TABLE D-2
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 117
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M117MW002			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
Dichlorodifluoromethane	ND	0 / 1	<	1.90E-01	1.00E+00	U
Ethylbenzene	ND	0 / 1	<	2.30E-01	1.00E+00	U
Hexachlorobutadiene	ND	0 / 1	<	1.90E-01	1.00E+00	U
Isopropylbenzene (Cumene)	ND	0 / 1	<	1.60E-01	1.00E+00	U
m,p-Xylene (sum of isomers)	ND	0 / 1	<	1.90E-01	2.00E+00	U
Methyl Ethyl Ketone (2-Butanone)	ND	0 / 1	<	6.00E-01	1.00E+01	U
Methyl tert-Butyl Ether	ND	0 / 1	<	1.90E-01	1.00E+00	U
Methylene Chloride	ND	0 / 1	<	3.50E-01	5.00E+00	U
Naphthalene	ND	0 / 1	<	3.60E-01	1.00E+00	U
n-Butylbenzene	ND	0 / 1	<	1.50E-01	1.00E+00	U
n-Propylbenzene	ND	0 / 1	<	2.10E-01	1.00E+00	U
o-Xylene (1,2-Dimethylbenzene)	ND	0 / 1	<	1.90E-01	1.00E+00	U
p-Cymene (p-Isopropyltoluene)	ND	0 / 1	<	1.20E-01	1.00E+00	U
sec-Butylbenzene	ND	0 / 1	<	1.20E-01	1.00E+00	U
Styrene	ND	0 / 1	<	2.50E-01	1.00E+00	U
tert-Butylbenzene	ND	0 / 1	<	1.30E-01	1.00E+00	U
Tetrachloroethene	ND	0 / 1	<	1.50E-01	1.00E+00	U
Toluene	ND	0 / 1	<	1.70E-01	1.00E+00	U
trans-1,3-Dichloropropene	ND	0 / 1	<	1.80E-01	1.00E+00	U
Trichloroethene	ND	0 / 1	<	1.60E-01	1.00E+00	U
Trichlorofluoromethane	ND	0 / 1	<	2.40E-01	1.00E+00	U
Vinyl Chloride	ND	0 / 1	<	2.30E-01	1.00E+00	U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)						
1,2,4-Trichlorobenzene	ND	0 / 1	<	1.30E+00	1.00E+01	U
1,2-Dichlorobenzene	ND	0 / 1	<	1.10E+00	1.00E+01	U
1,2-Diphenylhydrazine	ND	0 / 1	<	3.30E+00	1.00E+01	U
1,3-Dichlorobenzene	ND	0 / 1	<	1.00E+00	1.00E+01	U
1,4-Dichlorobenzene	ND	0 / 1	<	1.00E+00	1.00E+01	U
2,4,5-Trichlorophenol	ND	0 / 1	<	2.30E+00	1.00E+01	U
2,4,6-Trichlorophenol	ND	0 / 1	<	2.50E+00	1.00E+01	U
2,4-Dichlorophenol	ND	0 / 1	<	2.50E+00	1.00E+01	U
2,4-Dimethylphenol	ND	0 / 1	<	2.40E+00	1.00E+01	U
2,4-Dinitrophenol	ND	0 / 1	<	1.80E+00	2.00E+01	U
2,4-Dinitrotoluene	ND	0 / 1	<	2.70E+00	2.00E+01	U
2,6-Dinitrotoluene	ND	0 / 1	<	2.70E+00	2.00E+01	U
2-Chloronaphthalene	ND	0 / 1	<	2.00E+00	1.00E+01	U
2-Chlorophenol	ND	0 / 1	<	2.00E+00	1.00E+01	U
2-Methylnaphthalene	ND	0 / 1	<	1.80E+00	1.00E+01	U
2-Methylphenol (o-cresol)	ND	0 / 1	<	1.90E+00	1.00E+01	U
2-Nitroaniline	ND	0 / 1	<	2.40E+00	2.00E+01	U
2-Nitrophenol	ND	0 / 1	<	2.10E+00	1.00E+01	U
3,3-Dichlorobenzidine	ND	0 / 1	<	3.00E+00	1.00E+01	U
3-Nitroaniline	ND	0 / 1	<	3.00E+00	1.00E+01	U

TABLE D-2
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 117
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M117MW002			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
3&4-Methylphenol	ND	0 / 1	<	1.70E+00	1.00E+01	U
4,6-Dinitro-2-methylphenol	ND	0 / 1	<	2.20E+00	2.00E+01	U
4-Bromophenyl-phenylether	ND	0 / 1	<	2.60E+00	1.00E+01	U
4-Chloro-3-methylphenol	ND	0 / 1	<	2.60E+00	1.00E+01	U
4-Chloroaniline	ND	0 / 1	<	2.70E+00	1.00E+01	U
4-Chlorophenyl-phenylether	ND	0 / 1	<	2.60E+00	1.00E+01	U
4-Nitroaniline	ND	0 / 1	<	2.50E+00	1.00E+01	U
Acenaphthene	ND	0 / 1	<	2.30E+00	1.00E+01	U
Acenaphthylene	ND	0 / 1	<	2.30E+00	1.00E+01	U
Anthracene	ND	0 / 1	<	2.80E+00	1.00E+01	U
Benzo(a)anthracene	ND	0 / 1	<	2.60E+00	1.00E+01	U
Benzo(a)pyrene	ND	0 / 1	<	2.50E+00	1.00E+01	U
Benzo(b)fluoranthene	ND	0 / 1	<	2.90E+00	1.00E+01	U
Benzo(g,h,i)perylene	ND	0 / 1	<	2.50E+00	1.00E+01	U
Benzo(k)fluoranthene	ND	0 / 1	<	2.90E+00	1.00E+01	U
Benzyl Alcohol	ND	0 / 1	<	2.00E+00	1.00E+01	U
bis(2-Chloroethoxy)methane	ND	0 / 1	<	2.40E+00	1.00E+01	U
bis(2-Chloroethyl)ether	ND	0 / 1	<	2.20E+00	1.00E+01	U
bis(2-chloroisopropyl)ether	ND	0 / 1	<	2.00E+00	1.00E+01	U
bis(2-Ethylhexyl)phthalate	ND	0 / 1	<	2.90E+00	2.00E+01	U
Butylbenzylphthalate	ND	0 / 1	<	2.80E+00	1.00E+01	U
Carbazole	ND	0 / 1	<	3.30E+00	1.00E+01	U
Chrysene	ND	0 / 1	<	2.80E+00	1.00E+01	U
Dibenz(a,h)anthracene	ND	0 / 1	<	2.50E+00	1.00E+01	U
Dibenzofuran	ND	0 / 1	<	2.40E+00	2.00E+01	U
Diethylphthalate	ND	0 / 1	<	3.00E+00	1.00E+01	U
Dimethylphthalate	ND	0 / 1	<	2.90E+00	1.00E+01	U
Di-n-butylphthalate	ND	0 / 1	<	3.20E+00	1.00E+01	U
Di-n-octylphthalate	ND	0 / 1	<	2.60E+00	1.00E+01	U
Fluoranthene	ND	0 / 1	<	2.90E+00	1.00E+01	U
Fluorene	ND	0 / 1	<	2.50E+00	1.00E+01	U
Hexachlorobenzene	ND	0 / 1	<	2.70E+00	2.00E+01	U
Hexachlorobutadiene	ND	0 / 1	<	9.00E-01	1.00E+01	U
Hexachloroethane	ND	0 / 1	<	8.00E-01	1.00E+01	U
Indeno(1,2,3-cd)pyrene	ND	0 / 1	<	2.40E+00	1.00E+01	U
Isophorone	ND	0 / 1	<	2.50E+00	1.00E+01	U
Naphthalene	ND	0 / 1	<	1.80E+00	1.00E+01	U
Nitrobenzene	ND	0 / 1	<	2.10E+00	1.00E+01	U
N-Nitrosodimethylamine	ND	0 / 1	<	1.70E+00	1.00E+01	U
N-Nitroso-di-n-propylamine	ND	0 / 1	<	2.20E+00	1.00E+01	U
N-Nitrosodiphenylamine	ND	0 / 1	<	2.70E+00	1.00E+01	U
Pentachlorophenol	ND	0 / 1	<	2.80E+00	2.00E+01	U
Phenanthrene	ND	0 / 1	<	2.70E+00	2.00E+01	U

TABLE D-2
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 117
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M117MW002			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
Phenol	ND	0 / 1	<	1.00E+00	1.00E+01	U
Pyrene	ND	0 / 1	<	2.80E+00	1.00E+01	U
PESTICIDES (ORGANOCHLORINE) (µg/L)						
4,4-DDD	ND	0 / 1	<	3.00E-03	5.00E-02	U
4,4-DDE	ND	0 / 1	<	4.00E-03	5.00E-02	U
4,4-DDT	ND	0 / 1	<	7.00E-03	5.00E-02	U
Aldrin	ND	0 / 1	<	9.00E-03	5.00E-02	U
alpha-BHC	ND	0 / 1	<	5.00E-03	5.00E-02	U
alpha-Chlordane	ND	0 / 1	<	7.00E-03	5.00E-02	U
beta-BHC	ND	0 / 1	<	8.00E-03	5.00E-02	U
delta-BHC	ND	0 / 1	<	5.00E-03	5.00E-02	U
Dieldrin	ND	0 / 1	<	5.00E-03	5.00E-02	U
Endosulfan I	ND	0 / 1	<	5.00E-03	5.00E-02	U
Endosulfan II	ND	0 / 1	<	4.00E-03	5.00E-02	U
Endosulfan sulfate	ND	0 / 1	<	5.00E-03	5.00E-02	U
Endrin	ND	0 / 1	<	7.00E-03	5.00E-02	U
Endrin aldehyde	ND	0 / 1	<	9.00E-03	5.00E-02	U
Endrin ketone	ND	0 / 1	<	6.00E-03	5.00E-02	U
gamma-BHC (Lindane)	ND	0 / 1	<	5.00E-03	5.00E-02	U
gamma-Chlordane	ND	0 / 1	<	6.00E-03	5.00E-02	U
Heptachlor	ND	0 / 1	<	8.00E-03	5.00E-02	U
Heptachlor epoxide	ND	0 / 1	<	7.00E-03	5.00E-02	U
Methoxychlor	ND	0 / 1	<	8.00E-03	5.00E-02	U
Toxaphene	ND	0 / 1	<	3.80E-01	1.00E+00	U
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	ND	0 / 1	<	1.30E-01	1.00E+00	U
1,3-Dinitrobenzene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2,4,6-Trinitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2,4-Dinitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2,6-Dinitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2-Amino-4,6-dinitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2-Nitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
3-Nitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
4-Amino-2,6-dinitrotoluene	ND	0 / 1	<	1.00E-01	1.00E+00	U
4-Nitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
HMX	ND	0 / 1	<	1.20E-01	1.00E+00	U
Nitrobenzene	ND	0 / 1	<	1.30E-01	1.00E+00	U
RDX	ND	0 / 1	<	1.20E-01	1.00E+00	U
Tetryl	ND	0 / 1	<	1.30E-01	1.00E+00	U
DISSOLVED METALS by 6010B (µg/L)						
Calcium	1.94E+05	1 / 1	1.94E+05	5.44E+02	2.00E+03	
Magnesium	1.56E+05	1 / 1	1.56E+05	2.58E+02	1.00E+03	
Potassium	3.62E+04	1 / 1	3.62E+04	1.99E+03	2.00E+04	

TABLE D-2
SUMMARY OF ANALYTICAL DATA COLLECTED AT SWMU 117
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			M117MW002			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
Sodium	7.81E+05	1 / 1	7.81E+05	2.22E+03	2.00E+04	
Titanium	ND	0 / 1	<	1.17E+00	5.00E+00	U
DISSOLVED METALS by 6020A (µg/L)						
Antimony	1.20E+00	1 / 1	1.20E+00	1.00E-02	2.00E-01	
Arsenic	1.63E+01	1 / 1	1.63E+01	9.00E-02	2.00E-01	
Barium	6.04E+01	1 / 1	6.04E+01	4.00E-02	5.00E-01	
Beryllium	ND	0 / 1	<	4.00E-02	2.00E-01	U
Cadmium	4.60E-01	1 / 1	4.60E-01	2.00E-02	2.00E-01	
Chromium	4.31E+01	1 / 1	4.31E+01	4.00E-02	5.00E-01	
Cobalt	9.80E-01	1 / 1	9.80E-01	3.00E-02	5.00E-01	
Copper	1.59E+01	1 / 1	1.59E+01	1.30E-01	5.00E-01	
Lead	2.10E-01	1 / 1	2.10E-01	1.10E-01	2.00E-01	
Manganese	1.48E+01	1 / 1	1.48E+01	6.00E-02	5.00E-01	
Mercury	5.20E-01	1 / 1	5.20E-01	6.00E-02	2.00E-01	
Molybdenum	2.51E+01	1 / 1	2.51E+01	7.00E-02	5.00E-01	
Selenium	9.79E+01	1 / 1	9.79E+01	1.00E-01	1.00E+00	
Silver	ND	0 / 1	<	3.00E-02	2.00E-01	U
Vanadium	1.26E+02	1 / 1	1.26E+02	7.00E-02	5.00E-01	
Zinc	2.39E+03	1 / 1	2.39E+03	1.20E+01	2.50E+02	
WET CHEMISTRY PARAMETERS (µg/L)						
Ammonia	ND	0 / 1	<	1.22E+02	5.00E+02	U
Bromide	7.34E+03	1 / 1	7.34E+03	2.50E+02	2.50E+03	
Chloride	6.65E+05	1 / 1	6.65E+05	4.00E+03	5.00E+04	
Fluoride	2600 J	1 / 1	2.60E+03	4.00E+02	5.00E+03	J
Hexavalent Chromium			NR			
Perchlorate	1.50E+01	1 / 1	1.50E+01	2.00E+00	6.00E+00	
Phosphorus, Total Orthophosphate	ND	0 / 1	<	1.08E+03	5.00E+03	U
Sulfate	1.67E+06	1 / 1	1.67E+06	4.50E+03	5.00E+04	
Sulfide	ND	0 / 1	<	6.00E+02	2.00E+03	U
Total Organic Carbon	5.50E+00	1 / 1	5.50E+00	7.00E+01	5.00E+02	

Notes:
* There is no result for hexavalent chromium due to dry well.
µg/L = microgram per Liter
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetra
ID = Identification
J = Estimated
MDL = Method Detection Limit
MW = Monitoring Well
ND = Not Detected
NR = No Result
Qual = Qualifier
RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine
RL = Reporting Limit
SWMU = Solid Waste Management Unit
U = Nondetect

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TABLE D-3
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO1MW001				MAO1MW002				MAO1MW003				MAO1MW004*			
DATE COLLECTED			January 29, 2009				January 28, 2009				January 29, 2009				January 27, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)																		
1,1,1,2-Tetrachloroethane	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
1,1,1-Trichloroethane	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
1,1,2,2-Tetrachloroethane	ND	0 / 4	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U
1,1,2-Trichloroethane	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
1,1-Dichloroethane	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
1,1-Dichloroethene	ND	0 / 4	<	3.00E-01	1.00E+00	U	<	3.00E-01	1.00E+00	U	<	3.00E-01	1.00E+00	U	<	3.00E-01	1.00E+00	U
1,1-Dichloropropene	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
1,2,3-Trichlorobenzene	ND	0 / 4	<	2.90E-01	1.00E+00	U	<	2.90E-01	1.00E+00	U	<	2.90E-01	1.00E+00	U	<	2.90E-01	1.00E+00	U
1,2,3-Trichloropropane	ND	0 / 4	<	3.90E-01	2.00E+00	U	<	3.90E-01	2.00E+00	U	<	3.90E-01	2.00E+00	U	<	3.90E-01	2.00E+00	U
1,2,4-Trichlorobenzene	ND	0 / 4	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U
1,2,4-Trimethylbenzene	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
1,2-Dibromo-3-Chloropropane	ND	0 / 4	<	7.60E-01	2.00E+00	U	<	7.60E-01	2.00E+00	U	<	7.60E-01	2.00E+00	U	<	7.60E-01	2.00E+00	U
1,2-Dibromoethane (Ethylene Dibromide)	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
1,2-Dichlorobenzene	ND	0 / 4	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U
1,2-Dichloroethane	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
1,2-Dichloroethene (cis)	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
1,2-Dichloroethene (trans)	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
1,2-Dichloropropane	ND	0 / 4	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U
1,3,5-Trimethylbenzene	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
1,3-Dichlorobenzene	ND	0 / 4	<	1.10E-01	1.00E+00	U	<	1.10E-01	1.00E+00	U	<	1.10E-01	1.00E+00	U	<	1.10E-01	1.00E+00	U
1,3-Dichloropropane	ND	0 / 4	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U
1,4-Dichlorobenzene	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
2,2-Dichloropropane	ND	0 / 4	<	2.20E-01	1.00E+00	U	<	2.20E-01	1.00E+00	U	<	2.20E-01	1.00E+00	U	<	2.20E-01	1.00E+00	U
2-Chlorotoluene	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
2-Hexanone	ND	0 / 4	<	9.20E-01	1.00E+01	U	<	9.20E-01	1.00E+01	U	<	9.20E-01	1.00E+01	U	<	9.20E-01	1.00E+01	U
4-Chlorotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
4-Methyl-2-Pentanone	ND	0 / 4	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U
Acetone	ND	0 / 4	<	9.50E-01	1.00E+01	U	<	9.50E-01	1.00E+01	U	<	9.50E-01	1.00E+01	U	<	9.50E-01	1.00E+01	U
Benzene	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
Bromobenzene	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
Bromochloromethane	ND	0 / 4	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U
Bromodichloromethane	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
Bromoform	ND	0 / 4	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U
Bromomethane	ND	0 / 4	<	2.40E-01	2.00E+00	U	<	2.40E-01	2.00E+00	U	<	2.40E-01	2.00E+00	U	<	2.40E-01	2.00E+00	U
Carbon Disulfide	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
Carbon Tetrachloride	ND	0 / 4	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U
Chlorobenzene	ND	0 / 4	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U
Chloroethane	ND	0 / 4	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U
Chloroform	ND	0 / 4	<	7.00E-02	1.00E+00	U	<	7.00E-02	1.00E+00	U	<	7.00E-02	1.00E+00	U	<	7.00E-02	1.00E+00	U
Chloromethane	ND	0 / 4	<	3.10E-01	1.00E+00	U	<	3.10E-01	1.00E+00	U	<	3.10E-01	1.00E+00	U	<	3.10E-01	1.00E+00	U
cis-1,3-Dichloropropene	ND	0 / 4	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U

TABLE D-3
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO1MW001				MAO1MW002				MAO1MW003				MAO1MW004*			
DATE COLLECTED			January 29, 2009				January 28, 2009				January 29, 2009				January 27, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
Dibromomethane	ND	0 / 4	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U
Dichlorodifluoromethane	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
Ethylbenzene	ND	0 / 4	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U
Hexachlorobutadiene	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
Isopropylbenzene (Cumene)	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
m,p-Xylene (sum of isomers)	ND	0 / 4	<	1.90E-01	2.00E+00	U	<	1.90E-01	2.00E+00	U	<	1.90E-01	2.00E+00	U	<	1.90E-01	2.00E+00	U
Methyl Ethyl Ketone (2-Butanone)	ND	0 / 4	<	6.00E-01	1.00E+01	U	<	6.00E-01	1.00E+01	U	<	6.00E-01	1.00E+01	U	<	6.00E-01	1.00E+01	U
Methyl tert-Butyl Ether	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
Methylene Chloride	ND	0 / 4	<	3.50E-01	5.00E+00	U	<	3.50E-01	5.00E+00	U	<	3.50E-01	5.00E+00	U	<	3.50E-01	5.00E+00	U
Naphthalene	ND	0 / 4	<	3.60E-01	1.00E+00	U	<	3.60E-01	1.00E+00	U	<	3.60E-01	1.00E+00	U	<	3.60E-01	1.00E+00	U
n-Butylbenzene	ND	0 / 4	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U
n-Propylbenzene	ND	0 / 4	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U
o-Xylene (1,2-Dimethylbenzene)	ND	0 / 4	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U
p-Cymene (p-Isopropyltoluene)	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
sec-Butylbenzene	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
Styrene	ND	0 / 4	<	2.50E-01	1.00E+00	U	<	2.50E-01	1.00E+00	U	<	2.50E-01	1.00E+00	U	<	2.50E-01	1.00E+00	U
tert-Butylbenzene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
Tetrachloroethene	ND	0 / 4	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U
Toluene	ND	0 / 4	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U
trans-1,3-Dichloropropene	ND	0 / 4	<	1.80E-01	1.00E+00	U	<	1.80E-01	1.00E+00	U	<	1.80E-01	1.00E+00	U	<	1.80E-01	1.00E+00	U
Trichloroethene	ND	0 / 4	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U
Trichlorofluoromethane	ND	0 / 4	<	2.40E-01	1.00E+00	U	<	2.40E-01	1.00E+00	U	<	2.40E-01	1.00E+00	U	<	2.40E-01	1.00E+00	U
Vinyl Chloride	ND	0 / 4	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U
SEMIVOLATILE ORGANIC COMPOUNDS (ug/L)																		
1,2,4-Trichlorobenzene	ND	0 / 4	<	1.30E+00	1.00E+01	U	<	1.30E+00	1.00E+01	U	<	1.30E+00	1.00E+01	U	<	1.30E+00	1.00E+01	U
1,2-Dichlorobenzene	ND	0 / 4	<	1.10E+00	1.00E+01	U	<	1.10E+00	1.00E+01	U	<	1.10E+00	1.00E+01	U	<	1.10E+00	1.00E+01	U
1,2-Diphenylhydrazine	ND	0 / 4	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U
1,3-Dichlorobenzene	ND	0 / 4	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U
1,4-Dichlorobenzene	ND	0 / 4	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U
2,4,5-Trichlorophenol	ND	0 / 4	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U
2,4,6-Trichlorophenol	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
2,4-Dichlorophenol	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
2,4-Dimethylphenol	ND	0 / 4	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U
2,4-Dinitrophenol	ND	0 / 4	<	1.80E+00	2.00E+01	U	<	1.80E+00	2.00E+01	U	<	1.80E+00	2.00E+01	U	<	1.80E+00	2.00E+01	U
2,4-Dinitrotoluene	ND	0 / 4	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U
2,6-Dinitrotoluene	ND	0 / 4	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U
2-Chloronaphthalene	ND	0 / 4	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U
2-Chlorophenol	ND	0 / 4	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U
2-Methylnaphthalene	ND	0 / 4	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U
2-Methylphenol (o-cresol)	ND	0 / 4	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U
2-Nitroaniline	ND	0 / 4	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U
2-Nitrophenol	ND	0 / 4	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U
3,3-Dichlorobenzidine	ND	0 / 4	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U
3-Nitroaniline	ND	0 / 4	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U

TABLE D-3
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO1MW001				MAO1MW002				MAO1MW003				MAO1MW004*			
DATE COLLECTED			January 29, 2009				January 28, 2009				January 29, 2009				January 27, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
3&4-Methylphenol	ND	0 / 4	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U
4,6-Dinitro-2-methylphenol	ND	0 / 4	<	2.20E+00	2.00E+01	U	<	2.20E+00	2.00E+01	U	<	2.20E+00	2.00E+01	U	<	2.20E+00	2.00E+01	U
4-Bromophenyl-phenylether	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
4-Chloro-3-methylphenol	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
4-Chloroaniline	ND	0 / 4	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U
4-Chlorophenyl-phenylether	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
4-Nitroaniline	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Acenaphthene	ND	0 / 4	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U
Acenaphthylene	ND	0 / 4	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U
Anthracene	ND	0 / 4	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U
Benzo(a)anthracene	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
Benzo(a)pyrene	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Benzo(b)fluoranthene	ND	0 / 4	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U
Benzo(g,h,i)perylene	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Benzo(k)fluoranthene	ND	0 / 4	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U
Benzyl Alcohol	ND	0 / 4	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U
bis(2-Chloroethoxy)methane	ND	0 / 4	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U
bis(2-Chloroethyl)ether	ND	0 / 4	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U
bis(2-chloroisopropyl)ether	ND	0 / 4	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U
bis(2-Ethylhexyl)phthalate	ND	0 / 4	<	2.90E+00	2.00E+01	U	<	2.90E+00	2.00E+01	U	<	2.90E+00	2.00E+01	U	<	2.90E+00	2.00E+01	U
Butylbenzylphthalate	ND	0 / 4	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U
Carbazole	ND	0 / 4	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U
Chrysene	ND	0 / 4	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U
Dibenz(a,h)anthracene	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Dibenzofuran	ND	0 / 4	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U
Diethylphthalate	ND	0 / 4	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U
Dimethylphthalate	ND	0 / 4	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U
Di-n-butylphthalate	ND	0 / 4	<	3.20E+00	1.00E+01	U	<	3.20E+00	1.00E+01	U	<	3.20E+00	1.00E+01	U	<	3.20E+00	1.00E+01	U
Di-n-octylphthalate	ND	0 / 4	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U
Fluoranthene	ND	0 / 4	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U
Fluorene	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Hexachlorobenzene	ND	0 / 4	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U
Hexachlorobutadiene	ND	0 / 4	<	9.00E-01	1.00E+01	U	<	9.00E-01	1.00E+01	U	<	9.00E-01	1.00E+01	U	<	9.00E-01	1.00E+01	U
Hexachloroethane	ND	0 / 4	<	8.00E-01	1.00E+01	U	<	8.00E-01	1.00E+01	U	<	8.00E-01	1.00E+01	U	<	8.00E-01	1.00E+01	U
Indeno(1,2,3-cd)pyrene	ND	0 / 4	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U
Isophorone	ND	0 / 4	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U
Naphthalene	ND	0 / 4	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U
Nitrobenzene	ND	0 / 4	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U
N-Nitrosodimethylamine	ND	0 / 4	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U
N-Nitroso-di-n-propylamine	ND	0 / 4	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U
N-Nitrosodiphenylamine	ND	0 / 4	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U
Pentachlorophenol	ND	0 / 4	<	2.80E+00	2.00E+01	U	<	2.80E+00	2.00E+01	U	<	2.80E+00	2.00E+01	U	<	2.80E+00	2.00E+01	U
Phenanthrene	ND	0 / 4	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U
Phenol	ND	0 / 4	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U

TABLE D-3
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO1MW001				MAO1MW002				MAO1MW003				MAO1MW004*			
DATE COLLECTED			January 29, 2009				January 28, 2009				January 29, 2009				January 27, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
Pyrene	ND	0 / 4	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U
PESTICIDES (ORGANOCHLORINE) (µg/L)																		
4,4-DDD	ND	0 / 4	<	3.00E-03	5.00E-02	U	<	3.00E-03	5.00E-02	U	<	3.00E-03	5.00E-02	U	<	3.00E-03	5.00E-02	U
4,4-DDE	ND	0 / 4	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U
4,4-DDT	ND	0 / 4	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U
Aldrin	ND	0 / 4	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U
alpha-BHC	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
alpha-Chlordane	ND	0 / 4	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U
beta-BHC	ND	0 / 4	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U
delta-BHC	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
Dieldrin	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
Endosulfan I	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
Endosulfan II	ND	0 / 4	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U
Endosulfan sulfate	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
Endrin	ND	0 / 4	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U
Endrin aldehyde	ND	0 / 4	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U
Endrin ketone	ND	0 / 4	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U
gamma-BHC (Lindane)	ND	0 / 4	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U
gamma-Chlordane	ND	0 / 4	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U
Heptachlor	ND	0 / 4	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U
Heptachlor epoxide	ND	0 / 4	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U
Methoxychlor	ND	0 / 4	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U
Toxaphene	ND	0 / 4	<	3.80E-01	1.00E+00	U	<	3.80E-01	1.00E+00	U	<	3.80E-01	1.00E+00	U	<	3.80E-01	1.00E+00	U
EXPLOSIVES (µg/L)																		
1,3,5-Trinitrobenzene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
1,3-Dinitrobenzene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2,4,6-Trinitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2,4-Dinitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2,6-Dinitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2-Amino-4,6-dinitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
2-Nitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
3-Nitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
4-Amino-2,6-dinitrotoluene	ND	0 / 4	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U
4-Nitrotoluene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
HMX	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
Nitrobenzene	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
RDX	ND	0 / 4	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U
Tetryl	ND	0 / 4	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U
DISSOLVED METALS by 6010B (µg/L)																		
Calcium	6.12E+04	4 / 4	5.35E+04	2.72E+01	1.00E+02	J	4.40E+04	2.72E+01	1.00E+02		6.12E+04	2.72E+01	1.00E+02		4.44E+04	2.72E+01	1.00E+02	
Magnesium	6.33E+04	4 / 4	5.31E+04	1.29E+01	5.00E+01	J	4.49E+04	1.29E+01	5.00E+01		6.33E+04	1.29E+01	5.00E+01		4.28E+04	1.29E+01	5.00E+01	
Potassium	7.79E+03	4 / 4	7.23E+03	9.95E+01	1.00E+03		7.53E+03	9.95E+01	1.00E+03		7.79E+03	9.95E+01	1.00E+03		6.41E+03	9.95E+01	1.00E+03	
Sodium	7.32E+05	4 / 4	7.32E+05	2.78E+03	2.50E+04		6.45E+05	2.78E+03	2.50E+04		6.55E+05	2.78E+03	2.50E+04		4.01E+05	2.78E+03	2.00E+04	
Titanium	ND	0 / 4	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U

TABLE D-3
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO1MW001				MAO1MW002				MAO1MW003				MAO1MW004*			
DATE COLLECTED			January 29, 2009				January 28, 2009				January 29, 2009				January 27, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6020A (µg/L)																		
Antimony	1.60E-01 J	1 / 4	1.60E-01	1.00E-02	2.00E-01	J	<	1.00E-02	2.20E-01	U	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U
Arsenic	2.60E+00	4 / 4	9.60E-01	9.00E-02	2.00E-01		1.60E+00	9.00E-02	2.00E-01	J	2.50E+00	9.00E-02	2.00E-01		2.60E+00	9.00E-02	2.00E-01	
Barium	2.32E+01	4 / 4	1.69E+01	4.00E-02	5.00E-01		1.90E+01	4.00E-02	5.00E-01		1.63E+01	4.00E-02	5.00E-01		2.32E+01	4.00E-02	5.00E-01	
Beryllium	1.40E-01 J	2 / 4	1.40E-01	4.00E-02	2.00E-01	J	1.10E-01	4.00E-02	2.00E-01	J	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U
Cadmium	3.20E+00	4 / 4	9.20E-01	2.00E-02	2.00E-01		3.20E+00	2.00E-02	2.00E-01		1.60E-01	2.00E-02	2.00E-01	J	1.40E+00	2.00E-02	2.00E-01	J
Chromium	3.50E+00 J	4 / 4	2.20E+00	4.00E-02	5.00E-01		3.50E+00	4.00E-02	5.00E-01	J	1.90E+00	4.00E-02	5.00E-01		2.20E+00	4.00E-02	5.00E-01	
Chromium III	3.50E+00	4 / 4	2.20E+00	4.00E-02	5.00E-01		3.50E+00	4.00E-02	5.00E-01		1.90E+00	4.00E-02	5.00E-01		2.20E+00	4.00E-02	5.00E-01	
Cobalt	4.80E-01 J	4 / 4	4.80E-01	3.00E-02	5.00E-01	J	1.80E-01	3.00E-02	5.00E-01	J	7.70E-02	3.00E-02	5.00E-01	J	1.20E-01	3.00E-02	5.00E-01	J
Copper	2.70E+00	4 / 4	2.70E+00	1.30E-01	5.00E-01		2.30E+00	1.30E-01	5.00E-01		2.20E+00	1.30E-01	5.00E-01		1.90E+00	1.30E-01	5.00E-01	
Lead	3.20E-01	4 / 4	3.20E-01	1.10E-01	2.00E-01		1.10E-01	1.10E-01	2.00E-01		1.50E-01	1.10E-01	2.00E-01	J	1.30E-01	1.10E-01	2.00E-01	J
Manganese	5.10E+00	4 / 4	5.10E+00	6.00E-02	5.00E-01		8.40E-01	6.00E-02	5.00E-01		6.70E-01	6.00E-02	5.00E-01		1.20E+00	6.00E-02	5.00E-01	
Mercury	1.60E-01 J	2 / 4	<	6.00E-02	2.00E-01	U	9.80E-02	6.00E-02	2.00E-01	J	<	6.00E-02	2.00E-01	U	1.60E-01	6.00E-02	2.00E-01	J
Molybdenum	1.14E+01	4 / 4	5.70E+00	7.00E-02	5.00E-01		1.14E+01	7.00E-02	5.00E-01		4.00E+00	7.00E-02	5.00E-01		6.00E+00	7.00E-02	5.00E-01	J
Selenium	1.39E+01	4 / 4	6.30E+00	1.00E-01	1.00E+00		9.30E+00	1.00E-01	1.00E+00	J	1.30E+01	1.00E-01	1.00E+00		1.39E+01	1.00E-01	1.00E+00	
Silver	ND	0 / 4	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U
Vanadium	1.91E+01	4 / 4	8.70E+00	7.00E-02	5.00E-01		1.34E+01	7.00E-02	5.00E-01		1.15E+01	7.00E-02	5.00E-01		1.91E+01	7.00E-02	5.00E-01	
Zinc	8.26E+02	4 / 4	4.15E+02	2.30E+00	5.00E+01		8.26E+02	2.30E+00	5.00E+01		4.47E+02	2.30E+00	5.00E+01		2.57E+02	2.30E+00	5.00E+01	J
WET CHEMISTRY PARAMETERS (µg/L)																		
Ammonia	4.54E+02 J	1 / 4	<	1.22E+02	5.00E+02	U	4.54E+02	1.22E+02	5.00E+02	J	<	1.22E+02	5.00E+02	U	<	1.22E+02	5.00E+02	U
Bromide	2.67E+03	4 / 4	2.67E+03	1.00E+02	1.00E+03		2.25E+03	1.00E+02	1.00E+03		2.29E+03	1.00E+02	1.00E+03		1.63E+03	1.00E+02	5.00E+02	
Chloride	5.71E+05	4 / 4	5.71E+05	2.00E+03	2.50E+04		4.49E+05	2.00E+03	2.50E+04		4.80E+05	2.00E+03	2.50E+04		2.67E+05	2.00E+03	1.00E+04	
Fluoride	2.49E+03	4 / 4	2.24E+03	1.60E+02	2.00E+03		2.49E+03	1.60E+02	2.00E+03		2.18E+03	1.60E+02	2.00E+03		2.22E+03	1.60E+02	1.00E+03	
Hexavalent Chromium	ND	0 / 4	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ
Perchlorate	4.20E+00	4 / 4	3.00E-01	2.00E-01	6.00E-01	J	2.00E+00	2.00E-01	6.00E-01	J	4.00E-01	2.00E-01	6.00E-01	J	4.20E+00	2.00E-01	6.00E-01	
Phosphorus, Total Orthophosphate	ND	0 / 4	<	4.30E+02	2.00E+03	U	<	4.30E+02	2.00E+03	U	<	4.30E+02	2.00E+03	U	<	4.30E+02	1.00E+03	U
Sulfate	6.63E+05	4 / 4	6.63E+05	2.25E+03	2.50E+04		5.34E+05	2.25E+03	2.50E+04		5.52E+05	2.25E+03	2.50E+04		3.51E+05	2.25E+03	1.00E+04	
Sulfide	ND	0 / 4	<	6.00E+02	2.00E+03	U	<	6.00E+02	2.00E+03	U	<	6.00E+02	2.00E+03	U	<	6.00E+02	2.00E+03	U
Total Organic Carbon	700E+02 J	3 / 4	<	7.00E+01	5.00E+02	U	7.00E+02	7.00E+01	5.00E+02		7.00E+02	7.00E+01	5.00E+02		7.00E+02	7.00E+01	5.00E+02	J

Notes:
* Hexavalent Chromium was re-sampled due to hold time exceedence in the original sample.
µg/L = microgram per Liter
AOC = Area of Concern
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetra
ID = Identification
J = Estimated
MDL = Method Detection Limit
MW = Monitoring Well
ND = Not Detected
Qual = Qualifier
RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine
RL = Reporting Limit
U = Nondetect
UJ = Estimated Nondetect

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TABLE D-4
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC 2
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO2MW001D*			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
VOLATILE ORGANIC COMPOUNDS (µg/L)						
1,1,1,2-Tetrachloroethane	ND	0 / 1	<	1.30E-01	1.00E+00	U
1,1,1-Trichloroethane	ND	0 / 1	<	1.40E-01	1.00E+00	U
1,1,2,2-Tetrachloroethane	ND	0 / 1	<	1.00E-01	1.00E+00	U
1,1,2-Trichloroethane	ND	0 / 1	<	2.00E-01	1.00E+00	U
1,1-Dichloroethane	ND	0 / 1	<	1.90E-01	1.00E+00	U
1,1-Dichloroethene	ND	0 / 1	<	3.00E-01	1.00E+00	U
1,1-Dichloropropene	ND	0 / 1	<	2.00E-01	1.00E+00	U
1,2,3-Trichlorobenzene	ND	0 / 1	<	2.90E-01	1.00E+00	U
1,2,3-Trichloropropane	ND	0 / 1	<	3.90E-01	2.00E+00	U
1,2,4-Trichlorobenzene	ND	0 / 1	<	2.10E-01	1.00E+00	U
1,2,4-Trimethylbenzene	ND	0 / 1	<	1.90E-01	1.00E+00	U
1,2-Dibromo-3-Chloropropane	ND	0 / 1	<	7.60E-01	2.00E+00	U
1,2-Dibromoethane (Ethylene Dibromide)	ND	0 / 1	<	2.00E-01	1.00E+00	U
1,2-Dichlorobenzene	ND	0 / 1	<	1.70E-01	1.00E+00	U
1,2-Dichloroethane	ND	0 / 1	<	1.40E-01	1.00E+00	U
1,2-Dichloroethene (cis)	ND	0 / 1	<	1.60E-01	1.00E+00	U
1,2-Dichloroethene (trans)	ND	0 / 1	<	1.90E-01	1.00E+00	U
1,2-Dichloropropane	ND	0 / 1	<	1.70E-01	1.00E+00	U
1,3,5-Trimethylbenzene	ND	0 / 1	<	1.20E-01	1.00E+00	U
1,3-Dichlorobenzene	ND	0 / 1	<	1.10E-01	1.00E+00	U
1,3-Dichloropropane	ND	0 / 1	<	1.70E-01	1.00E+00	U
1,4-Dichlorobenzene	ND	0 / 1	<	1.90E-01	1.00E+00	U
2,2-Dichloropropane	ND	0 / 1	<	2.20E-01	1.00E+00	U
2-Chlorotoluene	ND	0 / 1	<	1.40E-01	1.00E+00	U
2-Hexanone	ND	0 / 1	<	9.20E-01	1.00E+01	U
4-Chlorotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
4-Methyl-2-Pentanone	ND	0 / 1	<	1.90E+00	1.00E+01	U
Acetone	ND	0 / 1	<	9.50E-01	1.00E+01	U
Benzene	2.00E-01 J	1 / 1	2.00E-01	1.60E-01	1.00E+00	J
Bromobenzene	ND	0 / 1	<	1.60E-01	1.00E+00	U
Bromochloromethane	ND	0 / 1	<	1.50E-01	1.00E+00	U
Bromodichloromethane	ND	0 / 1	<	1.40E-01	1.00E+00	U
Bromoform	ND	0 / 1	<	1.40E-01	1.00E+00	U
Bromomethane	ND	0 / 1	<	2.40E-01	2.00E+00	U
Carbon Disulfide	ND	0 / 1	<	2.00E-01	1.00E+00	U
Carbon Tetrachloride	ND	0 / 1	<	1.00E-01	1.00E+00	U
Chlorobenzene	ND	0 / 1	<	2.10E-01	1.00E+00	U
Chloroethane	4.00E-01 J	1 / 1	4.00E-01	2.10E-01	1.00E+00	J
Chloroform	ND	0 / 1	<	7.00E-02	1.00E+00	U
Chloromethane	ND	0 / 1	<	3.10E-01	1.00E+00	U
cis-1,3-Dichloropropene	ND	0 / 1	<	1.50E-01	1.00E+00	U
Dibromomethane	ND	0 / 1	<	2.00E-01	1.00E+00	U

TABLE D-4
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC 2
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO2MW001D*			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
Dichlorodifluoromethane	ND	0 / 1	<	1.90E-01	1.00E+00	U
Ethylbenzene	ND	0 / 1	<	2.30E-01	1.00E+00	U
Hexachlorobutadiene	ND	0 / 1	<	1.90E-01	1.00E+00	U
Isopropylbenzene (Cumene)	ND	0 / 1	<	1.60E-01	1.00E+00	U
m,p-Xylene (sum of isomers)	ND	0 / 1	<	1.90E-01	2.00E+00	U
Methyl Ethyl Ketone (2-Butanone)	ND	0 / 1	<	6.00E-01	1.00E+01	U
Methyl tert-Butyl Ether	ND	0 / 1	<	1.90E-01	1.00E+00	U
Methylene Chloride	ND	0 / 1	<	3.50E-01	5.00E+00	U
Naphthalene	ND	0 / 1	<	3.60E-01	1.00E+00	U
n-Butylbenzene	ND	0 / 1	<	1.50E-01	1.00E+00	U
n-Propylbenzene	ND	0 / 1	<	2.10E-01	1.00E+00	U
o-Xylene (1,2-Dimethylbenzene)	ND	0 / 1	<	1.90E-01	1.00E+00	U
p-Cymene (p-Isopropyltoluene)	ND	0 / 1	<	1.20E-01	1.00E+00	U
sec-Butylbenzene	ND	0 / 1	<	1.20E-01	1.00E+00	U
Styrene	ND	0 / 1	<	2.50E-01	1.00E+00	U
tert-Butylbenzene	ND	0 / 1	<	1.30E-01	1.00E+00	U
Tetrachloroethene	ND	0 / 1	<	1.50E-01	1.00E+00	U
Toluene	3.00E-01 J	1 / 1	3.00E-01	1.70E-01	1.00E+00	J
trans-1,3-Dichloropropene	ND	0 / 1	<	1.80E-01	1.00E+00	U
Trichloroethene	ND	0 / 1	<	1.60E-01	1.00E+00	U
Trichlorofluoromethane	ND	0 / 1	<	2.40E-01	1.00E+00	U
Vinyl Chloride	1.10E+00	1 / 1	1.10E+00	2.30E-01	1.00E+00	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)						
1,2,4-Trichlorobenzene	ND	0 / 1	<	1.30E+00	1.00E+01	U
1,2-Dichlorobenzene	ND	0 / 1	<	1.10E+00	1.00E+01	U
1,2-Diphenylhydrazine	ND	0 / 1	<	3.30E+00	1.00E+01	U
1,3-Dichlorobenzene	ND	0 / 1	<	1.00E+00	1.00E+01	U
1,4-Dichlorobenzene	ND	0 / 1	<	1.00E+00	1.00E+01	U
2,4,5-Trichlorophenol	ND	0 / 1	<	2.30E+00	1.00E+01	U
2,4,6-Trichlorophenol	ND	0 / 1	<	2.50E+00	1.00E+01	U
2,4-Dichlorophenol	ND	0 / 1	<	2.50E+00	1.00E+01	U
2,4-Dimethylphenol	ND	0 / 1	<	2.40E+00	1.00E+01	U
2,4-Dinitrophenol	ND	0 / 1	<	1.80E+00	2.00E+01	U
2,4-Dinitrotoluene	ND	0 / 1	<	2.70E+00	2.00E+01	U
2,6-Dinitrotoluene	ND	0 / 1	<	2.70E+00	2.00E+01	U
2-Chloronaphthalene	ND	0 / 1	<	2.00E+00	1.00E+01	U
2-Chlorophenol	ND	0 / 1	<	2.00E+00	1.00E+01	U
2-Methylnaphthalene	ND	0 / 1	<	1.80E+00	1.00E+01	U
2-Methylphenol (o-cresol)	ND	0 / 1	<	1.90E+00	1.00E+01	U
2-Nitroaniline	ND	0 / 1	<	2.40E+00	2.00E+01	U
2-Nitrophenol	ND	0 / 1	<	2.10E+00	1.00E+01	U
3,3-Dichlorobenzidine	ND	0 / 1	<	3.00E+00	1.00E+01	U
3-Nitroaniline	ND	0 / 1	<	3.00E+00	1.00E+01	U

TABLE D-4
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC 2
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO2MW001D*			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
3&4-Methylphenol	ND	0 / 1	<	1.70E+00	1.00E+01	U
4,6-Dinitro-2-methylphenol	ND	0 / 1	<	2.20E+00	2.00E+01	U
4-Bromophenyl-phenylether	ND	0 / 1	<	2.60E+00	1.00E+01	U
4-Chloro-3-methylphenol	ND	0 / 1	<	2.60E+00	1.00E+01	U
4-Chloroaniline	ND	0 / 1	<	2.70E+00	1.00E+01	U
4-Chlorophenyl-phenylether	ND	0 / 1	<	2.60E+00	1.00E+01	U
4-Nitroaniline	ND	0 / 1	<	2.50E+00	1.00E+01	U
Acenaphthene	ND	0 / 1	<	2.30E+00	1.00E+01	U
Acenaphthylene	ND	0 / 1	<	2.30E+00	1.00E+01	U
Anthracene	ND	0 / 1	<	2.80E+00	1.00E+01	U
Benzo(a)anthracene	ND	0 / 1	<	2.60E+00	1.00E+01	U
Benzo(a)pyrene	ND	0 / 1	<	2.50E+00	1.00E+01	U
Benzo(b)fluoranthene	ND	0 / 1	<	2.90E+00	1.00E+01	U
Benzo(g,h,i)perylene	ND	0 / 1	<	2.50E+00	1.00E+01	U
Benzo(k)fluoranthene	ND	0 / 1	<	2.90E+00	1.00E+01	U
Benzyl Alcohol	ND	0 / 1	<	2.00E+00	1.00E+01	U
bis(2-Chloroethoxy)methane	ND	0 / 1	<	2.40E+00	1.00E+01	U
bis(2-Chloroethyl)ether	ND	0 / 1	<	2.20E+00	1.00E+01	U
bis(2-chloroisopropyl)ether	ND	0 / 1	<	2.00E+00	1.00E+01	U
bis(2-Ethylhexyl)phthalate	ND	0 / 1	<	2.90E+00	2.00E+01	U
Butylbenzylphthalate	ND	0 / 1	<	2.80E+00	1.00E+01	U
Carbazole	ND	0 / 1	<	3.30E+00	1.00E+01	U
Chrysene	ND	0 / 1	<	2.80E+00	1.00E+01	U
Dibenz(a,h)anthracene	ND	0 / 1	<	2.50E+00	1.00E+01	U
Dibenzofuran	ND	0 / 1	<	2.40E+00	2.00E+01	U
Diethylphthalate	ND	0 / 1	<	3.00E+00	1.00E+01	U
Dimethylphthalate	ND	0 / 1	<	2.90E+00	1.00E+01	U
Di-n-butylphthalate	ND	0 / 1	<	3.20E+00	1.00E+01	U
Di-n-octylphthalate	ND	0 / 1	<	2.60E+00	1.00E+01	U
Fluoranthene	ND	0 / 1	<	2.90E+00	1.00E+01	U
Fluorene	ND	0 / 1	<	2.50E+00	1.00E+01	U
Hexachlorobenzene	ND	0 / 1	<	2.70E+00	2.00E+01	U
Hexachlorobutadiene	ND	0 / 1	<	9.00E-01	1.00E+01	U
Hexachloroethane	ND	0 / 1	<	8.00E-01	1.00E+01	U
Indeno(1,2,3-cd)pyrene	ND	0 / 1	<	2.40E+00	1.00E+01	U
Isophorone	ND	0 / 1	<	2.50E+00	1.00E+01	U
Naphthalene	ND	0 / 1	<	1.80E+00	1.00E+01	U
Nitrobenzene	ND	0 / 1	<	2.10E+00	1.00E+01	U
N-Nitrosodimethylamine	ND	0 / 1	<	1.70E+00	1.00E+01	U
N-Nitroso-di-n-propylamine	ND	0 / 1	<	2.20E+00	1.00E+01	U
N-Nitrosodiphenylamine	ND	0 / 1	<	2.70E+00	1.00E+01	U
Pentachlorophenol	ND	0 / 1	<	2.80E+00	2.00E+01	U
Phenanthrene	ND	0 / 1	<	2.70E+00	2.00E+01	U

TABLE D-4
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC 2
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO2MW001D*			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
Phenol	ND	0 / 1	<	1.00E+00	1.00E+01	U
Pyrene	ND	0 / 1	<	2.80E+00	1.00E+01	U
PESTICIDES (ORGANOCHLORINE) (µg/L)						
4,4-DDD	ND	0 / 1	<	3.00E-03	5.00E-02	U
4,4-DDE	ND	0 / 1	<	4.00E-03	5.00E-02	U
4,4-DDT	ND	0 / 1	<	7.00E-03	5.00E-02	U
Aldrin	ND	0 / 1	<	9.00E-03	5.00E-02	U
alpha-BHC	ND	0 / 1	<	5.00E-03	5.00E-02	U
alpha-Chlordane	ND	0 / 1	<	7.00E-03	5.00E-02	U
beta-BHC	ND	0 / 1	<	8.00E-03	5.00E-02	U
delta-BHC	ND	0 / 1	<	5.00E-03	5.00E-02	U
Dieldrin	ND	0 / 1	<	5.00E-03	5.00E-02	U
Endosulfan I	ND	0 / 1	<	5.00E-03	5.00E-02	U
Endosulfan II	ND	0 / 1	<	4.00E-03	5.00E-02	U
Endosulfan sulfate	ND	0 / 1	<	5.00E-03	5.00E-02	U
Endrin	ND	0 / 1	<	7.00E-03	5.00E-02	U
Endrin aldehyde	ND	0 / 1	<	9.00E-03	5.00E-02	U
Endrin ketone	ND	0 / 1	<	6.00E-03	5.00E-02	U
gamma-BHC (Lindane)	ND	0 / 1	<	5.00E-03	5.00E-02	U
gamma-Chlordane	ND	0 / 1	<	6.00E-03	5.00E-02	U
Heptachlor	ND	0 / 1	<	8.00E-03	5.00E-02	U
Heptachlor epoxide	ND	0 / 1	<	7.00E-03	5.00E-02	U
Methoxychlor	ND	0 / 1	<	8.00E-03	5.00E-02	U
Toxaphene	ND	0 / 1	<	3.80E-01	1.00E+00	U
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	ND	0 / 1	<	1.30E-01	1.00E+00	U
1,3-Dinitrobenzene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2,4,6-Trinitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2,4-Dinitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2,6-Dinitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2-Amino-4,6-dinitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
2-Nitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
3-Nitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
4-Amino-2,6-dinitrotoluene	ND	0 / 1	<	1.00E-01	1.00E+00	U
4-Nitrotoluene	ND	0 / 1	<	1.30E-01	1.00E+00	U
HMX	ND	0 / 1	<	1.20E-01	1.00E+00	U
Nitrobenzene	ND	0 / 1	<	1.30E-01	1.00E+00	U
RDX	ND	0 / 1	<	1.20E-01	1.00E+00	U
Tetryl	ND	0 / 1	<	1.30E-01	1.00E+00	U
DISSOLVED METALS by 6010B (µg/L)						
Calcium	1.23E+05	1 / 1	1.23E+05	1.09E+03	4.00E+03	

TABLE D-4
SUMMARY OF ANALYTICAL DATA COLLECTED AT AOC 2
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID			MAO2MW001D*			
DATE COLLECTED			January 30, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual
Magnesium	5.77E+04	1 / 1	5.77E+04	1.29E+01	5.00E+01	
Potassium	1.25E+04	1 / 1	1.25E+04	9.95E+01	1.00E+03	
Sodium	1.88E+06	1 / 1	1.88E+06	4.44E+03	4.00E+04	
Titanium	ND	0 / 1	<	1.17E+00	5.00E+00	U
DISSOLVED METALS by 6020A (µg/L)						
Antimony	8.90E-01	1 / 1	8.90E-01	1.00E-02	2.00E-01	
Arsenic	1.02E+01	1 / 1	1.02E+01	9.00E-02	2.00E-01	
Barium	1.03E+01	1 / 1	1.03E+01	4.00E-02	5.00E-01	
Beryllium	ND	0 / 1	<	4.00E-02	2.00E-01	U
Cadmium	ND	0 / 1	<	2.00E-02	2.00E-01	U
Chromium	1.20E+00	1 / 1	1.20E+00	4.00E-02	5.00E-01	
Chromium III	1.20E+00	1 / 1	1.20E+00	4.00E-02	5.00E-01	
Cobalt	4.60E-01 J	1 / 1	4.60E-01	3.00E-02	5.00E-01	J
Copper	3.38E+01	1 / 1	3.38E+01	1.30E-01	5.00E-01	
Lead	1.30E-01 J	1 / 1	1.30E-01	1.10E-01	2.00E-01	J
Manganese	1.58E+02	1 / 1	1.58E+02	6.00E-02	5.00E-01	
Mercury	6.00E-02	1 / 1	6.00E-02	6.00E-02	2.00E-01	
Molybdenum	2.36E+01	1 / 1	2.36E+01	7.00E-02	5.00E-01	
Selenium	5.24E+01	1 / 1	5.24E+01	1.00E-01	1.00E+00	
Silver	ND	0 / 1	<	3.00E-02	2.00E-01	U
Vanadium	5.60E+00	1 / 1	5.60E+00	7.00E-02	5.00E-01	
Zinc	3.75E+02	1 / 1	3.75E+02	2.30E+00	5.00E+01	
WET CHEMISTRY PARAMETERS (µg/L)						
Ammonia	ND	0 / 1	<	1.22E+02	5.00E+02	U
Bromide	1.21E+04	1 / 1	1.21E+04	5.00E+02	5.00E+03	
Chloride	2.12E+06	1 / 1	2.12E+06	4.00E+03	5.00E+04	
Fluoride	1.12E+03 J	1 / 1	1.12E+03	8.00E+02	1.00E+04	J
Hexavalent Chromium	ND	0 / 1	<	6.00E+00	2.00E+01	UJ
Perchlorate	1.90E+01	1 / 1	1.90E+01	2.00E+00	6.00E+00	
Phosphorus, Total Orthophosphate	ND	0 / 1	<	2.15E+03	1.00E+04	U
Sulfate	2.02E+06	1 / 1	2.02E+06	4.50E+03	5.00E+04	
Sulfide	ND	0 / 1	<	6.00E+02	2.00E+03	U
Total Organic Carbon	6.60E+00	1 / 1	6.60E+02	7.00E+01	5.00E+02	

Notes:
*Hexavalent Chromium was re-sampled due to holding time exceedence in original sample.
µg/L = micrograms per Liter
AOC = Area of Concern
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetra
ID = Identification
MW = Monitoring Well
ND = Nondetect
Qual = Qualifier
RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine
RL = Reporting Limit
J = Estimated
U = Nondetect
UJ = Estimated Nondetect

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TABLE D-5
SUMMARY OF ANALYTICAL DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT AND HISTORICAL SAMPLING EVENTS - MELROSE AIR FORCE RANGE

FIELD ID			MWL-4*				MWL-5				MWL-6				MWL-6				MWL-6				MWL-7			
DATE COLLECTED			January 30, 2009				February 2, 2009				July 20, 2005				June 19, 2007				February 2, 2009				February 2, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)																										
Calcium	6.28E+05	41 / 41	5.55E+03	2.72E+01	1.00E+02		6.75E+04	2.72E+01	1.00E+02		7.10E+04	NA	2.00E+02		7.00E+04	NA	2.00E+02		2.05E+04	2.72E+01	1.00E+02		5.92E+03	2.72E+01	1.00E+02	
Magnesium	3.62E+05	41 / 41	4.57E+03	1.29E+01	5.00E+01		2.57E+04	1.29E+01	5.00E+01		3.60E+04	NA	2.00E+02		3.40E+04	NA	2.00E+02		1.40E+04	1.29E+01	5.00E+01		3.78E+03	1.29E+01	5.00E+01	
Potassium	5.10E+04	41 / 41	3.84E+04	9.95E+01	1.00E+03		6.74E+03	9.95E+01	1.00E+03		4.90E+03	NA	3.00E+03		4.50E+03	NA	3.00E+00		4.75E+03	9.95E+01	1.00E+03		3.27E+04	9.95E+01	1.00E+03	
Sodium	3.36E+06	41 / 41	5.07E+04	2.22E+02	2.00E+03		1.35E+05	5.56E+02	5.00E+03		6.90E+04	NA	5.00E+03		7.10E+04	NA	5.00E+00		6.22E+04	2.22E+02	2.00E+03		5.46E+04	2.22E+02	2.00E+03	
Titanium	ND	0 / 41	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA		<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U
DISSOLVED METALS by 6020A (µg/L)																										
Antimony	2.00E+00 J	20 / 41	<	1.00E-02	2.30E-01	U	2.60E-02	1.00E-02	2.00E-01	J	<	NA	2.00E+00	U	NA	NA	NA		5.30E-02	1.00E-02	2.00E-01	J	2.00E-01	1.00E-02	2.00E-01	
Arsenic	1.15E+01	41 / 41	8.80E-01	9.00E-02	2.00E-01		1.00E+00	9.00E-02	2.00E-01		7.70E+00	NA	5.00E+00		5.80E+00	NA	5.00E+00		1.80E+00	9.00E-02	2.00E-01		1.40E+00	9.00E-02	2.00E-01	
Barium	1.53E+02	41 / 41	1.74E+01	4.00E-02	5.00E-01		1.53E+02	4.00E-02	5.00E-01		2.20E+01	NA	1.00E+00		2.10E+01	NA	1.00E+01		1.12E+01	4.00E-02	5.00E-01		6.90E+00	4.00E-02	5.00E-01	
Beryllium	5.10E-02 J	4 / 41	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U	<	NA	1.00E+00	U	NA	NA	NA		<	4.00E-02	4.00E-01	U	<	4.00E-02	2.00E-01	U
Cadmium	4.80E+00	23 / 41	5.20E-01	2.00E-02	2.00E-01		1.70E+00	2.00E-02	2.00E-01		<	NA	1.00E+00	U	NA	NA	NA		2.10E-01	2.00E-02	2.00E-01		4.80E+00	2.00E-02	2.00E-01	
Chromium	3.36E+01	41 / 41	6.50E-01	4.00E-02	5.00E-01		9.20E-01	4.00E-02	5.00E-01		7.70E-01	NA	2.00E+00	B	7.00E-01	NA	2.00E+00	B	3.10E-01	4.00E-02	5.00E-01	J	3.90E-01	4.00E-02	5.00E-01	J
Chromium III	2.60E+00	18 / 18	6.50E-01	4.00E-02	5.00E-01		9.20E-01	4.00E-02	5.00E-01		NA	NA	NA		NA	NA	NA		3.10E-01	4.00E-02	5.00E-01	J	3.90E-01	4.00E-02	5.00E-01	J
Cobalt	1.20E+01 B	41 / 41	7.10E-01	3.00E-02	5.00E-01		6.70E-01	3.00E-02	5.00E-01		2.00E-01	NA	1.00E+00	B	1.90E+00	NA	1.00E+00		9.70E-02	3.00E-02	5.00E-01	J	7.10E-01	3.00E-02	5.00E-01	
Copper	1.10E+01	41 / 41	2.40E+00	1.30E-01	5.00E-01		3.40E+00	1.30E-01	5.00E-01		7.60E-01	NA	2.00E+00	B	8.70E-01	NA	2.00E+00	B	1.80E+00	1.30E-01	5.00E-01		3.70E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	32 / 41	4.70E-01	1.10E-01	2.00E-01		3.70E-01	1.10E-01	2.00E-01		1.00E+00	NA	1.00E+00		NA	NA	1.00E+00		2.10E-01	1.10E-01	2.00E-01		3.40E-01	1.10E-01	2.00E-01	
Manganese	9.00E+02	39 / 41	1.15E+02	6.00E-02	5.00E-01		2.59E+02	6.00E-02	5.00E-01		5.40E+01	NA	1.00E+00		8.60E+01	NA	1.00E+00		5.12E+01	6.00E-02	5.00E-01		1.26E+01	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 41	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U	NA	NA	NA		NA	NA	NA		<	6.00E-02	2.00E-01	U	1.50E-01	6.00E-02	2.00E-01	J
Molybdenum	5.79E+01	41 / 41	1.50E+00	7.00E-02	5.00E-01		8.50E-01	7.00E-02	5.00E-01		2.10E+00	NA	2.00E+00		2.20E+00	NA	2.00E+00		1.30E+00	7.00E-02	5.00E-01		6.80E+00	7.00E-02	5.00E-01	
Selenium	4.57E+01	41 / 41	2.20E+00	1.00E-01	1.00E+00		3.00E+00	1.00E-01	1.00E+00		6.90E+00	NA	2.00E+00		7.30E+00	NA	5.00E+00		3.10E+00	1.00E-01	1.00E+00		1.50E+00	1.00E-01	1.00E+00	
Silver	7.80E-02 J	2 / 41	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	NA	5.00E+00	U	NA	NA	NA		7.80E-02	3.00E-02	2.00E-01	J	<	3.00E-02	2.00E-01	U
Vanadium	7.80E+01	37 / 41	9.30E-02	7.00E-02	5.00E-01	J	3.20E+00	7.00E-02	5.00E-01		5.10E+01	NA	5.00E+00		4.60E+01	NA	5.00E+00		3.40E+00	7.00E-02	5.00E-01		9.30E-02	7.00E-02	5.00E-01	J
Zinc	2.39E+03	39 / 41	2.39E+03	1.20E+01	2.50E+02		1.68E+01	2.30E+00	5.00E+01	J	7.10E+00	NA	1.00E+01	B	1.10E+01	NA	1.00E+01		1.79E+01	2.30E+00	5.00E+01	J	5.25E+01	2.30E+00	5.00E+01	
WET CHEMISTRY PARAMETERS (µg/L)																										
Alkalinity	7.85E+05	31 / 41	3.87E+05	8.52E+02	2.00E+03		6.25E+05	8.52E+02	2.00E+03		NA	NA	NA		1.20E+05	NA	5.00E+03		9.30E+04	8.52E+02	2.00E+03		7.85E+05	8.52E+02	2.00E+03	
Ammonia	8.91E+04	39 / 41	3.12E+04	2.44E+02	1.00E+03		5.58E+03	2.44E+02	5.00E+02		8.70E+01	NA	1.00E+02		8.40E+01	NA	1.00E+02	B	3.17E+02	2.44E+02	5.00E+02	J	8.91E+04	2.44E+02	5.00E+03	
Hexavalent Chromium	8.20E-01	1 / 41	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ	NA	NA	NA		NA	NA	NA		<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ
Nitrate-Nitrite	1.10E+04	35 / 41	5.86E+01	2.80E+01	5.00E+02	J	3.42E+01	2.80E+01	5.00E+02	J	6.60E+02	NA	1.00E+02		6.30E+02	NA	1.00E+02		6.08E+01	2.80E+01	5.00E+02	J	<	2.80E+01	5.00E+02	U
Phosphorus, Total Orthophosphate	1.91E+03	9 / 40					1.91E+03	2.15E+02	1.00E+03		NA	NA	NA		<	NA	5.00E+01		<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U
Total Dissolved Solids	1.21E+07	41 / 41	2.60E+05	4.40E+03	1.00E+04	J	6.18E+05	4.40E+03	1.00E+04	J	6.70E+05	NA	1.00E+04		6.90E+05	NA	1.00E+05		3.24E+05	4.40E+03	1.00E+04	J	2.34E+05	4.40E+03	1.00E+04	J
Total Organic Carbon	9.84E+04	32 / 41	8.10E+03	7.00E+01	5.00E+02		5.70E+03	7.00E+01	5.00E+02		3.80E+02	NA	1.00E+03		3.10E+02	NA	1.00E+02	B	1.10E+03	7.00E+01	5.00E+02		5.70E+03	7.00E+01	5.00E+02	

Notes:

MDLs and/or sample results were not available for all historical data.

* There is no result for Phosphorus, Total Orthophosphate due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in original sample.

µg/L = microgram per Liter
B = Estimated concentration - detected below the reporting limit
ID = Identification
MW = Monitoring Well
NA = Not Available
ND = Not Detected
Qual = Qualifier
RL = Reporting Limit
J = Estimated
U = Nondetect
UJ = Estimated Nondetect

TABLE D-5
SUMMARY OF ANALYTICAL DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT AND HISTORICAL SAMPLING EVENTS - MELROSE AIR FORCE RANGE

FIELD ID			MWL-9				MWQ-2				MWQ-2				MWQ-2				MWQ-3				MWQ-3			
DATE COLLECTED			January 22, 2009				July 20, 2005				June 18, 2007				January 21, 2009				July 18, 2005				June 18, 2007			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)																										
Calcium	6.28E+05	41 / 41	6.08E+04	2.72E+01	1.00E+02		1.90E+05	NA	2.00E+02		1.90E+05	NA	2.00E+02		2.01E+05	2.72E+03	1.00E+04		3.00E+04	NA	2.00E+02		3.10E+04	NA	2.00E+02	
Magnesium	3.62E+05	41 / 41	1.00E+04	1.29E+01	5.00E+01		1.30E+05	NA	2.00E+02		1.20E+05	NA	2.00E+02		1.36E+05	1.29E+03	5.00E+03		3.40E+04	NA	2.00E+02		3.30E+04	NA	2.00E+02	
Potassium	5.10E+04	41 / 41	2.50E+03	9.95E+01	1.00E+03		1.00E+04	NA	3.00E+05		9.80E+03	NA	3.00E+02		9.39E+03	9.95E+01	1.00E+03		6.20E+03	NA	3.00E+00		5.90E+03	NA	3.00E+02	
Sodium	3.36E+06	41 / 41	6.86E+04	5.56E+02	5.00E+03		2.30E+06	NA	5.00E+05		2.30E+06	NA	5.00E+02		2.44E+06	1.11E+04	1.00E+05		8.10E+04	NA	5.00E+00		8.20E+04	NA	5.00E+02	
Titanium	ND	0 / 41	<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA		<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA	
DISSOLVED METALS by 6020A (µg/L)																										
Antimony	2.00E+00 J	20 / 41	<	1.00E-02	2.20E-01	U	<	NA	1.00E+01	U	2.20E-01	NA	4.00E+00	B	2.00E+00	1.00E-02	2.00E-01	J	<	NA	2.00E+00	U	<	NA	2.00E+00	U
Arsenic	1.15E+01	41 / 41	2.90E+00	9.00E-02	2.00E-01		7.60E+00	NA	2.50E+01	B	4.30E+00	NA	1.00E+01	B	8.70E-01	9.00E-02	2.00E-01	J	1.00E+01	NA	5.00E+00		9.50E+00	NA	5.00E+00	
Barium	1.53E+02	41 / 41	6.64E+01	4.00E-02	5.00E-01		2.90E+01	NA	5.00E+00	J	2.50E+01	NA	2.00E+00		3.13E+01	4.00E-02	5.00E-01	J	2.50E+01	NA	1.00E+00		2.50E+01	NA	1.00E+01	
Beryllium	5.10E-02 J	4 / 41	<	4.00E-02	2.00E-01	U	<	NA	5.00E+00	U	NA	NA	NA		4.40E-02	4.00E-02	2.00E-01	J	<	NA	1.00E+00	U	NA	NA	NA	
Cadmium	4.80E+00	23 / 41	4.50E-01	2.00E-02	2.00E-01		<	NA	5.00E+00	U	1.10E-01	NA	2.00E+00	B	1.30E-01	2.00E-02	2.00E-01	J	<	NA	1.00E+00	U	<	NA	1.00E+00	U
Chromium	3.36E+01	41 / 41	<	4.00E-02	6.50E-01	U	4.20E+00	NA	1.00E+01	B	1.40E+00	NA	4.00E+00	B	2.60E+00	4.00E-02	5.00E-01		1.30E+00	NA	2.00E+00	B	1.40E+00	NA	2.00E+00	B
Chromium III	2.60E+00	18 / 18	6.50E-01	4.00E-02	5.00E-01		NA	NA	NA		NA	NA	NA		2.60E+00	4.00E-02	5.00E-01		NA	NA	NA		NA	NA	NA	
Cobalt	1.20E+01 B	41 / 41	1.50E-01	3.00E-02	5.00E-01	J	1.30E+00	NA	5.00E+00	B	8.40E+00	NA	2.00E+00		1.00E+00	3.00E-02	5.00E-01		8.20E-02	NA	1.00E+00	B	1.90E-01	NA	1.00E+00	B
Copper	1.10E+01	41 / 41	3.30E+00	1.30E-01	5.00E-01		6.80E+00	NA	1.00E+01	B	3.30E+00	NA	4.00E+00	B	3.50E+00	1.30E-01	5.00E-01		1.80E+00	NA	2.00E+00	B	2.40E+00	NA	2.00E+00	
Lead	3.10E+00 J	32 / 41	3.20E-01	1.10E-01	2.00E-01		<	NA	5.00E+00	U	<	NA	2.00E+00	U	1.10E-01	1.10E-01	2.00E-01		5.90E-01	NA	1.00E+00	B	2.90E-01	NA	1.00E+00	B
Manganese	9.00E+02	39 / 41	6.40E+00	6.00E-02	5.00E-01		4.20E+02	NA	5.00E+00	J	3.50E+02	NA	2.00E+00		4.58E+02	6.00E-02	5.00E-01		3.60E-01	NA	1.00E+00	B	6.30E-01	NA	1.00E+00	B
Mercury	1.50E-01 J	3 / 41	<	6.00E-02	2.00E-01	U	NA	NA	NA		NA	NA	NA		1.30E-01	6.00E-02	2.00E-01	J	NA	NA	NA		NA	NA	NA	
Molybdenum	5.79E+01	41 / 41	2.80E+00	7.00E-02	5.00E-01		2.50E+01	NA	1.00E+01		2.60E+01	NA	4.00E+00		2.28E+01	7.00E-02	5.00E-01		6.00E+00	NA	2.00E+00		5.70E+00	NA	2.00E+00	
Selenium	4.57E+01	41 / 41	3.80E+00	1.00E-01	1.00E+00		5.40E+00	NA	2.50E+01	B	7.10E+00	NA	1.00E+01	B	2.20E+00	1.00E-01	1.00E+00	J	5.10E+00	NA	5.00E+00		5.90E+00	NA	5.00E+00	
Silver	7.80E-02 J	2 / 41	<	3.00E-02	2.00E-01	U	<	NA	2.50E+01	U	NA	NA	NA		<	3.00E-02	2.00E-01	U	<	NA	5.00E+00	U	NA	NA	NA	
Vanadium	7.80E+01	37 / 41	1.94E+01	7.00E-02	5.00E-01		4.50E+00	NA	2.50E+01	B	<	NA	1.00E+01	U	<	7.00E-02	5.00E-01	U	7.80E+01	NA	5.00E+00		7.40E+01	NA	5.00E+00	
Zinc	2.39E+03	39 / 41	2.11E+03	1.20E+01	2.50E+02		<	NA	5.00E+01	U	5.00E+00	NA	2.00E+01	B	8.46E+02	2.30E+00	5.00E+01		5.40E+00	NA	1.00E+01	B	7.80E+00	NA	1.00E+01	B
WET CHEMISTRY PARAMETERS (µg/L)																										
Alkalinity	7.85E+05	31 / 41	1.92E+05	8.52E+02	2.00E+03		NA	NA	NA		6.60E+04	NA	5.00E+03		9.37E+04	8.52E+02	2.00E+03		NA	NA	NA		1.50E+05	NA	5.00E+03	
Ammonia	8.91E+04	39 / 41	2.01E+02	2.44E+02	5.00E+02	J	4.30E+02	NA	1.00E+02		3.50E+02	NA	1.00E+02		5.31E+02	2.44E+02	5.00E+02		1.40E+02	NA	1.00E+02		5.10E+01	NA	1.00E+02	B
Hexavalent Chromium	8.20E-01	1 / 41	<	6.00E+00	2.00E+01	UJ	NA	NA	NA	U	NA	NA	NA		<	6.00E+00	2.00E+01	U	NA	NA	NA		NA	NA	NA	
Nitrate-Nitrite	1.10E+04	35 / 41	6.94E+03	2.80E+01	5.00E+02		<	NA	1.00E+02	U	<	NA	1.00E+02	U	<	2.80E+01	5.00E+02	U	9.80E+02	NA	1.00E+02		9.50E+02	NA	1.00E+02	
Phosphorus, Total Orthophosphate	1.91E+03	9 / 40	<	2.15E+02	1.00E+03	U	NA	NA	NA		<	NA	5.00E+01	U	<	5.38E+03	2.50E+04	U	NA	NA	NA		7.90E+00	NA	5.00E+01	B
Total Dissolved Solids	1.21E+07	41 / 41	4.27E+05	4.40E+03	1.00E+04		7.40E+06	NA	1.00E+05		7.20E+06	NA	1.00E+05		7.36E+06	4.40E+04	1.00E+05		4.80E+05	NA	1.00E+04		5.20E+05	NA	1.00E+05	
Total Organic Carbon	9.84E+04	32 / 41	2.40E+03	7.00E+01	5.00E+02		<	NA	1.00E+03	U	<	NA	1.00E+02	U	5.00E+02	7.00E+01	5.00E+02		5.10E+02	NA	1.00E+03		<	NA	1.00E+02	U

Notes:

MDLs and/or sample results were not available for all historical data.

* There is no result for Phosphorus, Total Orthophosphate due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in original sample.

µg/L = microgram per Liter
B = Estimated concentration - detected below the reporting limit
ID = Identification
MW = Monitoring Well
NA = Not Available
ND = Not Detected
Qual = Qualifier
RL = Reporting Limit
J = Estimated
U = Nondetect
UJ = Estimated Nondetect

TABLE D-5
SUMMARY OF ANALYTICAL DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT AND HISTORICAL SAMPLING EVENTS - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-3				MWQ-4				MWQ-4				MWQ-5				MWQ-5				MWQ-5			
DATE COLLECTED			January 21, 2009				June 19, 2007				February 2, 2009				July 19, 2005				June 19, 2007				January 23, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)																										
Calcium	6.28E+05	41 / 41	3.07E+04	2.72E+01	1.00E+02		4.20E+04	NA	2.00E+02		3.98E+04	2.72E+01	1.00E+02		4.20E+04	NA	2.00E+02		4.20E+04	NA	2.00E+02		4.38E+04	2.72E+01	1.00E+02	
Magnesium	3.62E+05	41 / 41	3.36E+04	1.29E+01	5.00E+01		1.90E+04	NA	2.00E+02		1.86E+04	1.29E+01	5.00E+01		2.30E+04	NA	2.00E+02		2.20E+04	NA	2.00E+02		2.40E+04	1.29E+01	5.00E+01	
Potassium	5.10E+04	41 / 41	5.78E+03	9.95E+01	1.00E+03		2.90E+03	NA	3.00E+02	B	2.68E+03	9.95E+01	1.00E+03		3.10E+03	NA	3.00E+00		2.90E+03	NA	3.00E+00	B	2.95E+03	9.95E+01	1.00E+03	
Sodium	3.36E+06	41 / 41	1.03E+05	5.56E+02	5.00E+03		5.20E+04	NA	5.00E+02		5.15E+04	2.22E+02	2.00E+03		6.30E+04	NA	5.00E+00		6.40E+03	NA	5.00E+00		8.36E+04	5.56E+02	5.00E+03	
Titanium	ND	0 / 41	<	1.17E+00	5.00E+00	U	NA	NA	NA		<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA		<	1.17E+00	5.00E+00	U
DISSOLVED METALS by 6020A (µg/L)																										
Antimony	2.00E+00 J	20 / 41	<	1.00E-02	2.00E-01	U	<	NA	2.00E+00	U	<	1.00E-02	2.00E-01	U	9.10E-02	NA	2.00E+00	B	1.10E-01	NA	2.00E+00	B	<	1.00E-02	2.00E-01	U
Arsenic	1.15E+01	41 / 41	1.15E+01	9.00E-02	2.00E-01		6.90E+00	NA	5.00E+00		7.90E+00	9.00E-02	2.00E-01		7.50E+00	NA	5.00E+00		7.00E+00	NA	5.00E+00		9.20E+00	9.00E-02	2.00E-01	
Barium	1.53E+02	41 / 41	2.75E+01	4.00E-02	5.00E-01		4.00E+01	NA	1.00E+01		4.47E+01	4.00E-02	5.00E-01		2.90E+01	NA	1.00E+00		3.00E+01	NA	1.00E+01		3.42E+01	4.00E-02	5.00E-01	
Beryllium	5.10E-02 J	4 / 41	5.10E-02	4.00E-02	2.00E-01	J	NA	NA	NA		<	4.00E-02	2.00E-01	U	<	NA	1.00E+00	U		NA	NA		<	4.00E-02	2.00E-01	U
Cadmium	4.80E+00	23 / 41	1.30E-01	2.00E-02	2.00E-01	J	<	NA	1.00E+00	U	3.50E-01	2.00E-02	2.00E-01		<	NA	1.00E+00	U	<	NA	1.00E+00	U	1.20E+00	2.00E-02	2.00E-01	
Chromium	3.36E+01	41 / 41	1.00E+00	4.00E-02	5.00E-01		1.10E+00	NA	2.00E+00	B	6.10E-01	4.00E-02	5.00E-01		1.10E+00	NA	2.00E+00	B	1.10E+00	NA	2.00E+00	B	9.50E-01	4.00E-02	5.00E-01	
Chromium III	2.60E+00	18 / 18	1.00E+00	4.00E-02	5.00E-01		NA	NA	NA		6.10E-01	4.00E-02	5.00E-01		NA	NA	NA		NA	NA	NA		1.30E-01	4.00E-02	5.00E-01	J
Cobalt	1.20E+01 B	41 / 41	4.30E-02	3.00E-02	5.00E-01	J	3.00E-01	NA	1.00E+00	B	7.00E-02	3.00E-02	5.00E-01	J	1.10E-01	NA	1.00E+00	B	1.50E-01	NA	1.00E+00	B	5.20E-02	3.00E-02	5.00E-01	J
Copper	1.10E+01	41 / 41	2.50E+00	1.30E-01	5.00E-01	J	8.30E+00	NA	2.00E+00		6.40E+00	1.30E-01	5.00E-01		1.50E+00	NA	2.00E+00	B	1.20E+00	NA	2.00E+00	B	4.50E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	32 / 41	1.90E-01	1.10E-01	2.00E-01	J	4.90E-01	NA	1.00E+00	B	2.10E-01	1.10E-01	2.00E-01		5.50E-01	NA	1.00E+00	B	<	NA	1.00E+00	U	3.40E-01	1.10E-01	2.00E-01	
Manganese	9.00E+02	39 / 41	2.00E-01	6.00E-02	5.00E-01	J	1.00E+00	NA	1.00E+00		5.80E-01	6.00E-02	5.00E-01		4.90E-01	NA	1.00E+00	B	<	NA	1.00E+00	U	1.70E+00	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 41	1.00E-01	6.00E-02	2.00E-01	J	NA	NA	NA		<	6.00E-02	2.00E-01	U	NA	NA	NA		NA	NA	NA		<	6.00E-02	2.00E-01	U
Molybdenum	5.79E+01	41 / 41	5.70E+00	7.00E-02	5.00E-01		2.90E+00	NA	2.00E+00		3.50E+00	7.00E-02	5.00E-01		3.70E+00	NA	2.00E+00		4.20E+00	NA	2.00E+00		4.20E+00	7.00E-02	5.00E-01	
Selenium	4.57E+01	41 / 41	7.20E+00	1.00E-01	1.00E+00		4.00E+00	NA	5.00E+00	B	3.50E+00	1.00E-01	1.00E+00		3.80E+00	NA	5.00E+00	B	3.50E+00	NA	5.00E+00	B	8.80E+00	1.00E-01	1.00E+00	
Silver	7.80E-02 J	2 / 41	<	3.00E-02	2.00E-01	U	NA	NA	NA		3.30E-02	3.00E-02	2.00E-01	J	<	NA	5.00E+00	U	NA	NA	NA		<	3.00E-02	2.00E-01	U
Vanadium	7.80E+01	37 / 41	6.85E+01	7.00E-02	5.00E-01		5.60E+01	NA	5.00E+00		5.37E+01	7.00E-02	5.00E-01		5.90E+01	NA	5.00E+00		6.50E+01	NA	5.00E+00		6.02E+01	7.00E-02	5.00E-01	
Zinc	2.39E+03	39 / 41	<	2.30E+00	5.00E+01	U	1.40E+01	NA	1.00E+01		1.16E+01	2.30E+00	5.00E+01	J	7.50E+00	NA	1.00E+01	B	8.40E+00	NA	1.00E+01	B	3.62E+01	2.30E+00	5.00E+01	J
WET CHEMISTRY PARAMETERS (µg/L)																										
Alkalinity	7.85E+05	31 / 41	1.87E+05	8.52E+02	2.00E+03		1.90E+05	NA	5.00E+01		2.85E+05	8.52E+02	2.00E+03		NA	NA	NA		1.70E+05	NA	5.00E+03		2.14E+05	8.52E+02	2.00E+03	
Ammonia	8.91E+04	39 / 41	2.41E+02	2.44E+02	5.00E+02	J	5.20E+01	NA	1.00E+02	B	<	2.44E+02	5.00E+02	U	3.80E+01	NA	1.00E+02		5.20E+01	NA	1.00E+02	B	4.73E+02	2.44E+02	5.00E+02	J
Hexavalent Chromium	8.20E-01	1 / 41	<	6.00E+00	2.00E+01	U	NA	NA	NA		<	6.00E+00	2.00E+01	U	NA	NA	NA		NA	NA	NA		8.20E-01	9.00E-02	5.00E-01	
Nitrate-Nitrite	1.10E+04	35 / 41	9.97E+02	2.80E+01	5.00E+02		5.10E+03	NA	1.00E+02		4.82E+03	2.80E+01	5.00E+02		6.90E+03	NA	1.00E+02		6.50E+03	NA	1.00E+02		6.06E+03	2.80E+01	5.00E+02	
Phosphorus, Total Orthophosphate	1.91E+03	9 / 40	<	2.15E+02	1.00E+03	U	7.00E+00	NA	5.00E+01	B	<	2.15E+02	1.00E+03	U	NA	NA	NA		<	NA	5.00E+01	U	<	2.15E+02	1.00E+03	U
Total Dissolved Solids	1.21E+07	41 / 41	4.71E+05	4.40E+03	1.00E+04		3.70E+05	NA	1.00E+05		3.68E+05	4.40E+03	1.00E+04	J	4.50E+05	NA	1.00E+04		4.60E+05	NA	1.00E+05		4.28E+05	4.40E+03	1.00E+04	
Total Organic Carbon	9.84E+04	32 / 41	<	7.00E+01	5.00E+02	U	<	NA	1.00E+02	U	6.00E+02	7.00E+01	5.00E+02		4.60E+02	NA	1.00E+03		<	NA	1.00E+02	U	8.00E+02	7.00E+01	5.00E+02	

Notes:

MDLs and/or sample results were not available for all historical data.

* There is no result for Phosphorus, Total Orthophosphate due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in original sample.

µg/L = microgram per Liter
B = Estimated concentration - detected below the reporting limit
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Qual = Qualifier
RL = Reporting Limit
J = Estimated
U = Nondetect
UJ = Estimated Nondetect

TABLE D-5
SUMMARY OF ANALYTICAL DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT AND HISTORICAL SAMPLING EVENTS - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-6				MWQ-6				MWQ-7				MWQ-7				MWQ-10				MWQ-10			
DATE COLLECTED			June 20, 2007				January 20, 2009				June 19, 2007				January 20, 2009				July 19, 2005				June 20, 2007			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)																										
Calcium	6.28E+05	41 / 41	3.70E+04	NA	2.00E+02		4.29E+04	2.72E+01	1.00E+02		5.40E+04	NA	2.00E+02		6.05E+04	2.72E+01	1.00E+02		5.20E+04	NA	2.00E+02		6.10E+04	NA	2.00E+02	
Magnesium	3.62E+05	41 / 41	1.80E+04	NA	2.00E+02		2.05E+04	1.29E+01	5.00E+01		2.30E+04	NA	2.00E+02		2.62E+04	1.29E+01	5.00E+01		3.00E+04	NA	2.00E+02		3.30E+04	NA	2.00E+02	
Potassium	5.10E+04	41 / 41	2.30E+03	NA	3.00E+00	B	2.36E+03	9.95E+01	1.00E+03		2.30E+03	NA	3.00E+00	B	2.39E+03	9.95E+01	1.00E+03		5.10E+03	NA	3.00E+00		5.10E+04	NA	3.00E+00	
Sodium	3.36E+06	41 / 41	5.60E+04	NA	5.00E+00		7.28E+04	5.56E+02	5.00E+03		6.70E+03	NA	5.00E+00		9.23E+04	5.56E+02	5.00E+03		1.30E+04	NA	5.00E+00		1.80E+04	NA	5.00E+00	
Titanium	ND	0 / 41	NA	NA	NA		<	1.17E+00	5.00E+00	U	NA	NA	NA		<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA	
DISSOLVED METALS by 6020A (µg/L)																										
Antimony	2.00E+00 J	20 / 41	<	NA	2.00E+00	U	<	1.00E-02	2.00E-01	U	<	NA	2.00E+00	U	<	1.00E-02	2.00E-01	U	<	NA	2.00E+00	U	<	NA	2.00E+00	U
Arsenic	1.15E+01	41 / 41	6.20E+00	NA	5.00E+00		8.00E+00	9.00E-02	2.00E-01	J	5.40E+00	NA	5.00E+00		6.80E+00	9.00E-02	2.00E-01		4.70E+00	NA	5.00E+00	B	4.40E+00	NA	5.00E+00	B
Barium	1.53E+02	41 / 41	3.00E+01	NA	1.00E+01		3.53E+01	4.00E-02	5.00E-01	J	2.80E+01	NA	1.00E+01		3.10E+01	4.00E-02	5.00E-01		1.20E+02	NA	1.00E+00		1.20E+02	NA	1.00E+01	
Beryllium	5.10E-02 J	4 / 41	NA	NA	NA		<	4.00E-02	2.00E-01	U	NA	NA	NA		<	4.00E-02	2.00E-01	U	<	NA	1.00E+00	U	NA	NA	NA	
Cadmium	4.80E+00	23 / 41	<	NA	1.00E+00	U	7.00E-02	2.00E-02	2.00E-01	J	<	NA	1.00E+00	U	3.20E+00	2.00E-02	2.00E-01	J	<	NA	1.00E+00	U	<	NA	1.00E+00	U
Chromium	3.36E+01	41 / 41	1.70E+00	NA	2.00E+00	B	9.30E-01	4.00E-02	5.00E-01		1.10E+00	NA	2.00E+00	B	8.50E-01	4.00E-02	5.00E-01		5.60E-01	NA	2.00E+00	B	9.60E-01	NA	2.00E+00	B
Chromium III	2.60E+00	18 / 18	NA	NA	NA		9.30E-01	4.00E-02	5.00E-01		NA	NA	NA		8.50E-01	4.00E-02	5.00E-01		NA	NA	NA		NA	NA	NA	
Cobalt	1.20E+01 B	41 / 41	2.80E-01	NA	1.00E+00	B	4.70E-02	3.00E-02	5.00E-01	J	2.10E-01	NA	1.00E+00	B	7.20E-02	3.00E-02	5.00E-01	J	1.40E-01	NA	1.00E+00	B	4.30E-01	NA	1.00E+00	B
Copper	1.10E+01	41 / 41	1.30E+00	NA	2.00E+00	B	2.60E+00	1.30E-01	5.00E-01	J	3.90E+00	NA	2.00E+00		4.20E+00	1.30E-01	5.00E-01	J	1.60E+00	NA	2.00E+00	B	1.70E+00	NA	2.00E+00	B
Lead	3.10E+00 J	32 / 41	<	NA	1.00E+00	U	3.80E-01	1.10E-01	2.00E-01		5.90E-01	NA	1.00E+00	B	3.10E+00	1.10E-01	2.00E-01	J	1.60E+00	NA	1.00E+00		5.50E-01	NA	1.00E+00	B
Manganese	9.00E+02	39 / 41	1.10E+00	NA	1.00E+00		6.30E-01	6.00E-02	5.00E-01		4.60E-01	NA	1.00E+00	B	1.40E+00	6.00E-02	5.00E-01	J	7.40E-01	NA	1.00E+00	B	<	NA	1.00E+00	U
Mercury	1.50E-01 J	3 / 41	NA	NA	NA		<	6.00E-02	2.00E-01	U	NA	NA	NA		<	6.00E-02	2.00E-01	U	NA	NA	NA		NA	NA	NA	
Molybdenum	5.79E+01	41 / 41	2.40E+00	NA	2.00E+00		2.70E+00	7.00E-02	5.00E-01		5.00E+00	NA	2.00E+00		5.10E+00	7.00E-02	5.00E-01		4.40E+00	NA	2.00E+00		4.70E+00	NA	2.00E+00	
Selenium	4.57E+01	41 / 41	3.30E+00	NA	5.00E+00	B	2.60E+00	1.00E-01	1.00E+00		4.50E+00	NA	5.00E+00	B	6.50E+00	1.00E-01	1.00E+00		6.80E-01	NA	5.00E+00	B	3.20E+00	NA	5.00E+00	B
Silver	7.80E-02 J	2 / 41	NA	NA	NA		<	3.00E-02	2.00E-01	U	NA	NA	NA		<	3.00E-02	2.00E-01	U	<	NA	5.00E+00	U	NA	NA	NA	
Vanadium	7.80E+01	37 / 41	5.80E+01	NA	5.00E+00		5.12E+01	7.00E-02	5.00E-01		5.20E+01	NA	5.00E+00		4.54E+01	7.00E-02	5.00E-01		3.70E+01	NA	5.00E+00		3.60E+01	NA	5.00E+00	
Zinc	2.39E+03	39 / 41	3.10E+01	NA	1.00E+01		3.30E+01	2.30E+00	5.00E+01	J	1.10E+01	NA	1.00E+01		8.80E+00	2.30E+00	5.00E+01	J	1.20E+01	NA	1.00E+01		1.50E+01	NA	1.00E+01	
WET CHEMISTRY PARAMETERS (µg/L)																										
Alkalinity	7.85E+05	31 / 41	1.60E+05	NA	5.00E+03		2.51E+05	8.52E+02	2.00E+03	J	1.50E+05	NA	5.00E+03		1.66E+05	8.52E+02	2.00E+03		NA	NA	NA		2.10E+05	NA	5.00E+03	
Ammonia	8.91E+04	39 / 41	4.60E+01	NA	1.00E+02	B	2.07E+02	2.44E+02	5.00E+02	J	5.70E+01	NA	1.00E+02	B	6.32E+02	2.44E+02	5.00E+02		2.70E+01	NA	1.00E+02	B	3.30E+01	NA	1.00E+02	B
Hexavalent Chromium	8.20E-01	1 / 41	NA	NA	NA		<	6.00E+00	2.00E+01	U	NA	NA	NA		<	6.00E+00	2.00E+01	UJ	NA	NA	NA		NA	NA	NA	
Nitrate-Nitrite	1.10E+04	35 / 41	4.80E+03	NA	1.00E+02		4.54E+03	2.80E+01	5.00E+02		1.70E+03	NA	1.00E+02		1.67E+03	2.80E+01	5.00E+02		1.10E+04	NA	5.00E+02		9.40E+03	NA	1.00E+02	
Phosphorus, Total Orthophosphate	1.91E+03	9 / 40	8.20E+00	NA	5.00E+01	B	<	2.15E+02	1.00E+03	U	7.90E+00	NA	5.00E+01	B	<	2.15E+02	1.00E+03	U	NA	NA	NA		8.70E+00	NA	5.00E+01	B
Total Dissolved Solids	1.21E+07	41 / 41	4.10E+04	NA	1.00E+05		3.76E+05	4.40E+03	1.00E+04		5.30E+05	NA	1.00E+05		5.04E+05	4.40E+03	1.00E+04		3.50E+05	NA	1.00E+04		4.40E+05	NA	1.00E+05	
Total Organic Carbon	9.84E+04	32 / 41	<	NA	1.00E+02	U	2.14E+03	1.29E+02	5.00E+02		1.90E+02	NA	1.00E+02	B	4.35E+03	1.29E+02	5.00E+02	J	9.50E+02	NA	1.00E+03	B	2.00E+02	NA	1.00E+02	B

Notes:

MDLs and/or sample results were not available for all historical data.

* There is no result for Phosphorus, Total Orthophosphate due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in original sample.

µg/L = microgram per Liter
B = Estimated concentration - detected below the reporting limit
ID = Identification
MW = Monitoring Well
NA = Not Available
ND = Not Detected
Qual = Qualifier
RL = Reporting Limit
J = Estimated
U = Nondetect
UJ = Estimated Nondetect

TABLE D-5
SUMMARY OF ANALYTICAL DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT AND HISTORICAL SAMPLING EVENTS - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-10				MWQ-14				MWQ-14				MWQ-14				MWQ-18				MWQ-18			
DATE COLLECTED			January 20, 2009				July 18, 2005				June 22, 2007				January 29, 2009				July 19, 2005				June 20, 2007			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)																										
Calcium	6.28E+05	41 / 41	6.53E+04	2.72E+01	1.00E+02		6.80E+04	NA	2.00E+02		8.00E+04	NA	2.00E+02		6.99E+04	2.72E+01	1.00E+02		4.20E+04	NA	2.00E+02		4.20E+04	NA	2.00E+02	
Magnesium	3.62E+05	41 / 41	3.74E+04	1.29E+01	5.00E+01		6.40E+04	NA	2.00E+02		7.20E+04	NA	2.00E+02		6.83E+04	1.29E+01	5.00E+01		2.00E+04	NA	2.00E+02		1.90E+04	NA	2.00E+02	
Potassium	5.10E+04	41 / 41	5.25E+03	9.95E+01	1.00E+03		1.10E+04	NA	3.00E+00		1.20E+04	NA	3.00E+00		1.15E+04	9.95E+01	1.00E+03		3.10E+03	NA	3.00E+00		2.70E+03	NA	3.00E+00	
Sodium	3.36E+06	41 / 41	1.91E+04	1.11E+02	1.00E+03		6.60E+05	NA	5.00E+00		6.50E+05	NA	5.00E+00		8.06E+05	2.78E+03	2.50E+04		6.70E+04	NA	5.00E+00		6.50E+04	NA	5.00E+00	
Titanium	ND	0 / 41	<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA		<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA	
DISSOLVED METALS by 6020A (µg/L)																										
Antimony	2.00E+00 J	20 / 41	<	1.00E-02	2.00E-01	U	3.60E-01	NA	2.00E+00	B	1.10E-01	NA	2.00E+00	B	<	1.00E-02	2.00E-01	U	8.20E-02	NA	2.00E+00	B	7.10E-02	NA	2.00E+00	B
Arsenic	1.15E+01	41 / 41	5.40E+00	9.00E-02	2.00E-01		5.50E+00	NA	5.00E+00		4.40E+00	NA	5.00E+00	B	5.20E+00	9.00E-02	2.00E-01		7.40E+00	NA	5.00E+00		6.90E+00	NA	5.00E+00	
Barium	1.53E+02	41 / 41	1.33E+02	4.00E-02	5.00E-01		1.20E+01	NA	1.00E+00		1.10E+01	NA	1.00E+01		1.26E+01	4.00E-02	5.00E-01		3.10E+01	NA	1.00E+00		3.10E+01	NA	1.00E+01	
Beryllium	5.10E-02 J	4 / 41	<	4.00E-02	2.00E-01	U	<	NA	1.00E+00	U	NA	NA	NA		4.10E-02	4.00E-02	2.00E-01	J	<	NA	1.00E+00	U	NA	NA	NA	
Cadmium	4.80E+00	23 / 41	4.10E-01	2.00E-02	2.00E-01		5.30E-02	NA	1.00E+00	B	1.00E-01	NA	1.00E+00	B	1.30E-01	2.00E-02	2.00E-01	J	<	NA	1.00E+00	U	<	NA	1.00E+00	
Chromium	3.36E+01	41 / 41	3.50E-01	4.00E-02	5.00E-01	J	1.60E+00	NA	2.00E+00	B	1.70E+00	NA	2.00E+00	B	2.00E+00	4.00E-02	5.00E-01	B	1.50E+00	NA	2.00E+00	B	1.70E+00	NA	2.00E+00	B
Chromium III	2.60E+00	18 / 18	3.50E-01	4.00E-02	5.00E-01	J	NA	NA	NA		NA	NA	NA		2.00E+00	4.00E-02	5.00E-01	B	NA	NA	NA		NA	NA	NA	
Cobalt	1.20E+01 B	41 / 41	9.10E-02	3.00E-02	5.00E-01	J	3.30E-01	NA	1.00E+00	B	6.80E+00	NA	1.00E+00		1.30E-01	3.00E-02	5.00E-01	J	1.20E-01	NA	1.00E+00	B	1.60E+00	NA	1.00E+00	
Copper	1.10E+01	41 / 41	4.70E+00	1.30E-01	5.00E-01		2.50E+00	NA	2.00E+00		4.00E+00	NA	2.00E+00		3.10E+00	1.30E-01	5.00E-01		5.80E-01	NA	2.00E+00	B	9.00E-01	NA	2.00E+00	B
Lead	3.10E+00 J	32 / 41	1.00E+00	1.10E-01	2.00E-01	J	5.00E-01	NA	1.00E+00	B	<	NA	1.00E+00		<	1.10E-01	2.00E-01	U	4.40E-01	NA	1.00E+00	B	2.10E-01	NA	1.00E+00	B
Manganese	9.00E+02	39 / 41	6.90E-01	6.00E-02	5.00E-01		1.20E+00	NA	1.00E+00		5.70E-01	NA	1.00E+00	B	7.30E-01	6.00E-02	5.00E-01		5.90E-01	NA	1.00E+00	B	3.70E-01	NA	1.00E+00	B
Mercury	1.50E-01 J	3 / 41	<	6.00E-02	2.00E-01	U	NA	NA	NA		NA	NA	NA		<	6.00E-02	2.00E-01	U	NA	NA	NA		NA	NA	NA	
Molybdenum	5.79E+01	41 / 41	5.00E+00	7.00E-02	5.00E-01		2.90E+01	NA	2.00E+00		2.80E+01	NA	2.00E+00		2.98E+01	7.00E-02	5.00E-01		4.90E+00	NA	2.00E+00		5.00E+00	NA	2.00E+00	
Selenium	4.57E+01	41 / 41	3.00E+00	1.00E-01	1.00E+00		2.70E+01	NA	5.00E+00		2.70E+01	NA	5.00E+00		4.57E+01	1.00E-01	1.00E+00		2.40E+00	NA	5.00E+00	B	4.00E+00	NA	5.00E+00	B
Silver	7.80E-02 J	2 / 41	<	3.00E-02	2.00E-01	U	<	NA	5.00E+00	U	NA	NA	NA		<	3.00E-02	2.00E-01	U	<	NA	5.00E+00	U	NA	NA	NA	
Vanadium	7.80E+01	37 / 41	3.29E+01	7.00E-02	5.00E-01		4.60E+00	NA	5.00E+00	B	5.20E+00	NA	5.00E+00		4.80E+00	7.00E-02	5.00E-01		6.00E+01	NA	5.00E+00		6.20E+01	NA	5.00E+00	
Zinc	2.39E+03	39 / 41	2.28E+01	2.30E+00	5.00E+01	J	9.40E+00	NA	1.00E+01	B	8.30E+00	NA	1.00E+01	B	2.66E+02	2.30E+00	5.00E+01		5.60E+00	NA	1.00E+01	B	8.00E+00	NA	1.00E+01	B
WET CHEMISTRY PARAMETERS (µg/L)																										
Alkalinity	7.85E+05	31 / 41	2.36E+05	8.52E+02	2.00E+03		NA	NA	NA		1.30E+05	NA	5.00E+03		2.12E+05	8.52E+02	2.00E+03		NA	NA	NA		1.60E+05	NA	5.00E+03	
Ammonia	8.91E+04	39 / 41	6.13E+02	2.44E+02	5.00E+02		1.20E+02	NA	1.00E+02		4.00E+01	NA	1.00E+02	B	<	2.44E+02	5.00E+02	U	9.00E+01	NA	1.00E+02	B	7.10E+01	NA	1.00E+02	B
Hexavalent Chromium	8.20E-01	1 / 41	<	6.00E+00	2.00E+01	UJ	NA	NA	NA		NA	NA	NA		<	6.00E+00	2.00E+01	UJ	NA	NA	NA		NA	NA	NA	
Nitrate-Nitrite	1.10E+04	35 / 41	9.65E+03	2.80E+01	5.00E+02		3.30E+03	NA	1.00E+02		2.80E+03	NA	1.00E+02		2.63E+03	2.80E+01	5.00E+02		5.60E+02	NA	1.00E+02		5.40E+02	NA	1.00E+02	
Phosphorus, Total Orthophosphate	1.91E+03	9 / 40	<	2.15E+02	1.00E+03	U	NA	NA	NA		8.90E+02	NA	5.00E+01		<	4.30E+02	2.00E+03	U	NA	NA	NA		7.80E+00	NA	5.00E+01	B
Total Dissolved Solids	1.21E+07	41 / 41	4.12E+05	4.40E+03	1.00E+04		2.50E+06	NA	1.00E+04		2.40E+06	NA	1.00E+05		2.60E+06	1.76E+04	4.00E+04		4.50E+05	NA	1.00E+04		4.70E+05	NA	1.00E+05	
Total Organic Carbon	9.84E+04	32 / 41	4.13E+03	7.00E+01	5.00E+02	J	2.00E+03	NA	1.00E+03		3.70E+02	NA	1.00E+02	B	6.00E+02	7.00E+01	5.00E+02		6.20E+02	NA	1.00E+03	B	<	NA	1.00E+02	U

Notes:

MDLs and/or sample results were not available for all historical data.

* There is no result for Phosphorus, Total Orthophosphate due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in original sample.

µg/L = microgram per Liter
B = Estimated concentration - detected below the reporting limit
ID = Identification
MW = Monitoring Well
NA = Not Available
ND = Not Detected
Qual = Qualifier
RL = Reporting Limit
J = Estimated
U = Nondetect
UJ = Estimated Nondetect

TABLE D-5
SUMMARY OF ANALYTICAL DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT AND HISTORICAL SAMPLING EVENTS - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-18				MWQ-19				MWQ-20				MWQ-20				MWQ-20				MWQ-21			
DATE COLLECTED			January 22, 2009				January 22, 2009				July 19, 2005				June 20, 2007				January 22, 2009				July 20, 2005			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)																										
Calcium	6.28E+05	41 / 41	3.88E+04	2.72E+01	1.00E+02		3.34E+05	2.72E+03	1.00E+04		4.30E+05	NA	2.00E+02		5.60E+05	NA	2.00E+02		6.28E+05	2.72E+03	1.00E+04		1.80E+05	NA	2.00E+02	
Magnesium	3.62E+05	41 / 41	1.82E+04	1.29E+01	5.00E+01		2.24E+05	1.29E+03	5.00E+03		2.50E+05	NA	2.00E+02		3.30E+05	NA	2.00E+02		3.62E+05	1.29E+01	5.00E+03		8.50E+04	NA	2.00E+02	
Potassium	5.10E+04	41 / 41	2.43E+03	9.95E+01	1.00E+03		1.01E+04	9.95E+01	1.00E+03		1.30E+04	NA	3.00E+00		1.50E+04	NA	3.00E+00		1.33E+04	9.95E+01	1.00E+03	J	1.20E+04	NA	3.00E+00	
Sodium	3.36E+06	41 / 41	6.39E+04	5.56E+02	5.00E+03		1.33E+06	1.11E+04	1.00E+05		2.40E+06	NA	5.00E+00		3.10E+06	NA	5.00E+00		3.36E+06	1.11E+04	1.00E+05		2.10E+05	NA	5.00E+00	
Titanium	ND	0 / 41	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA		<	1.17E+00	5.00E+00	U	NA	NA	NA	
DISSOLVED METALS by 6020A (µg/L)																										
Antimony	2.00E+00 J	20 / 41	<	1.00E-02	2.00E-01	U	<	1.00E-02	3.70E-01	U	3.60E-01	NA	4.00E+00	B	5.00E-01	NA	2.00E+00	B	6.30E-01	1.00E-02	2.00E-01		1.10E-01	NA	2.00E+00	B
Arsenic	1.15E+01	41 / 41	8.50E+00	9.00E-02	2.00E-01		5.30E+00	9.00E-02	2.00E-01		6.00E+00	NA	1.00E+01	B	2.00E+00	NA	5.00E+00	B	5.10E+00	9.00E-02	2.00E-01		7.20E+00	NA	5.00E+00	
Barium	1.53E+02	41 / 41	3.43E+01	4.00E-02	5.00E-01		2.89E+01	4.00E-02	5.00E-01		9.20E+01	NA	2.00E+00		2.90E+01	NA	1.00E+01		2.51E+01	4.00E-02	5.00E-01		1.10E+01	NA	1.00E+00	
Beryllium	5.10E-02 J	4 / 41	<	4.00E-02	2.00E-01	U	4.80E-02	4.00E-02	2.00E-01	J	<	NA	1.00E+00	U	NA	NA	NA		<	4.00E-02	2.00E-01	U	<	NA	1.00E+00	U
Cadmium	4.80E+00	23 / 41	1.30E+00	2.00E-02	2.00E-01		1.40E+00	2.00E-02	2.00E-01		2.80E-01	NA	1.00E+00	B	9.10E-02	NA	1.00E+00	B	6.10E-01	2.00E-02	2.00E-01		<	NA	1.00E+00	U
Chromium	3.36E+01	41 / 41	8.80E-01	4.00E-02	5.00E-01		3.36E+01	4.00E-02	5.00E-01		3.40E+00	NA	4.00E+00	B	2.90E+00	NA	2.00E+00		2.50E+00	4.00E-02	5.00E-01		1.40E+00	NA	2.00E+00	B
Chromium III	2.60E+00	18 / 18	8.80E-01	4.00E-02	5.00E-01		8.80E-01	4.00E-02	5.00E-01		NA	NA	NA		NA	NA	NA		2.50E+00	4.00E-02	5.00E-01		NA	NA	NA	
Cobalt	1.20E+01 B	41 / 41	7.10E-02	3.00E-02	5.00E-01	J	6.50E-01	3.00E-02	5.00E-01		2.80E+00	NA	2.00E+00		1.20E+01	NA	1.00E+00		2.40E+00	3.00E-02	5.00E-01		5.70E-01	NA	1.00E+00	B
Copper	1.10E+01	41 / 41	2.20E+00	1.30E-01	5.00E-01		4.80E+00	1.30E-01	5.00E-01		1.10E+01	NA	4.00E+00		3.90E+00	NA	2.00E+00		4.00E+00	1.30E-01	5.00E-01		4.30E+00	NA	2.00E+00	
Lead	3.10E+00 J	32 / 41	1.40E+00	1.10E-01	2.00E-01		3.10E-01	1.10E-01	2.00E-01		6.00E-01	NA	2.00E+00	B	2.00E-01	NA	1.00E+00	B	1.60E-01	1.10E-01	2.00E-01	J	5.40E-01	NA	1.00E+00	B
Manganese	9.00E+02	39 / 41	5.10E-01	6.00E-02	5.00E-01		4.72E+02	6.00E-02	5.00E-01		5.50E+02	NA	2.00E+00		9.00E+02	NA	1.00E+00		8.86E+02	6.00E-02	5.00E-01		1.10E+00	NA	1.00E+00	
Mercury	1.50E-01 J	3 / 41	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U	NA	NA	NA		NA	NA	NA		<	6.00E-02	2.00E-01	U	NA	NA	NA	
Molybdenum	5.79E+01	41 / 41	4.50E+00	7.00E-02	5.00E-01		4.20E-01	7.00E-02	5.00E-01	J	1.60E+01	NA	4.00E+00		1.60E+01	NA	2.00E+00		1.41E+01	7.00E-02	5.00E-01		9.30E+00	NA	2.00E+00	
Selenium	4.57E+01	41 / 41	3.80E+00	1.00E-01	1.00E+00		1.28E+01	1.00E-01	1.00E+00		8.20E+00	NA	1.00E+01	B	1.30E+01	NA	5.00E+00		3.04E+01	1.00E-01	1.00E+00		1.20E+01	NA	5.00E+00	
Silver	7.80E-02 J	2 / 41	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<	NA	1.00E+01	U	NA	NA	NA		<	3.00E-02	2.00E-01	U	<	NA	5.00E+00	U
Vanadium	7.80E+01	37 / 41	5.29E+01	7.00E-02	5.00E-01		<	7.00E-02	5.00E-01	U	3.80E+00	NA	1.00E+01	B	8.70E-01	NA	5.00E+00	B	<	7.00E-02	5.00E-01	U	4.50E+01	NA	5.00E+00	
Zinc	2.39E+03	39 / 41	1.71E+02	2.30E+00	5.00E+01		9.56E+02	2.30E+00	5.00E+01		1.20E+02	NA	2.00E+00		1.80E+01	NA	1.00E+01		3.84E+02	2.30E+00	5.00E+01		9.90E+00	NA	1.00E+01	B
WET CHEMISTRY PARAMETERS (µg/L)																										
Alkalinity	7.85E+05	31 / 41	1.97E+05	8.52E+02	2.00E+03		4.55E+05	8.52E+02	2.00E+03		NA	NA	NA		5.10E+04	NA	5.00E+03		6.48E+04	8.52E+02	2.00E+03		NA	NA	NA	
Ammonia	8.91E+04	39 / 41	4.21E+02	2.44E+02	5.00E+02	J	5.70E+02	2.44E+02	5.00E+02		3.90E+02	NA	1.00E+02		3.90E+02	NA	1.00E+02		5.83E+02	2.44E+02	5.00E+02		3.80E+01	NA	1.00E+02	B
Hexavalent Chromium	8.20E-01	1 / 41	<	6.00E+00	2.00E+01	U	<	6.00E+00	2.00E+01	U	NA	NA	NA		NA	NA	NA		<	6.00E+00	2.00E+01	U	NA	NA	NA	
Nitrate-Nitrite	1.10E+04	35 / 41	5.34E+02	2.80E+01	5.00E+02		6.27E+01	2.80E+01	5.00E+02	J	<	NA	1.00E+02	U	<	NA	1.00E+02	U	1.10E+02	2.80E+01	5.00E+02	J	1.40E+03	NA	1.00E+02	
Phosphorus, Total Orthophosphate	1.91E+03	9 / 40	<	2.15E+02	1.00E+03	U	<	1.08E+03	5.00E+03	U	NA	NA	NA		NA	NA	5.00E+01		<	2.15E+03	1.00E+04	U	NA	NA	NA	
Total Dissolved Solids	1.21E+07	41 / 41	4.45E+05	4.40E+03	1.00E+04		4.70E+06	4.40E+04	1.00E+05		5.10E+06	NA	2.00E+04		1.20E+07	NA	1.00E+05		1.21E+07	8.80E+04	2.00E+05		1.70E+06	NA	1.00E+04	
Total Organic Carbon	9.84E+04	32 / 41	7.00E+02	7.00E+01	5.00E+02		9.84E+04	7.00E+02	5.00E+03		5.60E+03	NA	1.00E+03		1.90E+02	NA	1.00E+02	B	<	7.00E+01	5.00E+02	UJ	1.80E+03	NA	1.00E+03	

Notes:

MDLs and/or sample results were not available for all historical data.

* There is no result for Phosphorus, Total Orthophosphate due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in original sample.

µg/L = microgram per Liter
B = Estimated concentration - detected below the reporting limit
ID = Identification
MW = Monitoring Well
NA = Not Available
ND = Not Detected
Qual = Qualifier
RL = Reporting Limit
J = Estimated
U = Nondetect
UJ = Estimated Nondetect

TABLE D-5
SUMMARY OF ANALYTICAL DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS
JANUARY/FEBRUARY 2009 SAMPLING EVENT AND HISTORICAL SAMPLING EVENTS - MELROSE AIR FORCE RANGE

FIELD ID			MWQ-21				MWQ-21				MWQ-22				MWQ-22				MWQ-22			
DATE COLLECTED			June 19, 2007				January 23, 2009				July 20, 2005				June 19, 2007				January 23, 2009			
	Maximum	Frequency	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Result	MDL	RL	Qual
DISSOLVED METALS by 6010B (µg/L)																						
Calcium	6.28E+05	41 / 41	1.70E+05	NA	2.00E+02		1.82E+05	2.72E+02	1.00E+03		3.10E+04	NA	2.00E+02		3.50E+04	NA	2.00E+02		5.66E+04	2.72E+01	1.00E+02	
Magnesium	3.62E+05	41 / 41	7.70E+04	NA	2.00E+02		7.51E+04	1.29E+01	5.00E+01		1.30E+04	NA	2.00E+02		1.50E+04	NA	2.00E+02		2.24E+04	1.29E+01	5.00E+01	
Potassium	5.10E+04	41 / 41	1.10E+04	NA	3.00E+00		1.06E+04	9.95E+01	1.00E+03		3.20E+03	NA	3.00E+00		3.10E+03	NA	3.00E+00		3.52E+03	9.95E+01	1.00E+03	
Sodium	3.36E+06	41 / 41	2.00E+05	NA	5.00E+00		2.51E+05	1.11E+03	1.00E+04		2.80E+05	NA	5.00E+00		3.20E+05	NA	5.00E+00		5.90E+05	2.22E+03	2.00E+04	
Titanium	ND	0 / 41	NA	NA	NA		<	1.17E+00	5.00E+00	U	NA	NA	NA		NA	NA	NA		<	1.17E+00	5.00E+00	U
DISSOLVED METALS by 6020A (µg/L)																						
Antimony	2.00E+00 J	20 / 41	9.90E-02	NA	2.00E+00	B	8.80E-01	1.00E-02	2.00E-01		4.80E-02	NA	2.00E+00	B	2.30E-01	NA	2.00E+00	B	1.00E+00	1.00E-02	2.00E-01	
Arsenic	1.15E+01	41 / 41	5.80E+00	NA	5.00E+00		6.60E+00	9.00E-02	2.00E-01		2.40E+00	NA	5.00E+00	B	2.00E+00	NA	5.00E+00	B	1.10E+00	9.00E-02	2.00E-01	
Barium	1.53E+02	41 / 41	3.70E+01	NA	1.00E+01		4.22E+01	4.00E-02	5.00E-01		2.90E+01	NA	1.00E+00		3.40E+01	NA	1.00E+01		6.51E+01	4.00E-02	5.00E-01	
Beryllium	5.10E-02 J	4 / 41	NA	NA	NA		<	4.00E-02	2.00E-01	U	<	NA	1.00E+00	U	NA	NA	NA		<	4.00E-02	2.00E-01	U
Cadmium	4.80E+00	23 / 41	<	NA	1.00E+00		2.00E+00	2.00E-02	2.00E-01		<	NA	1.00E+00	U	<	NA	1.00E+00		2.20E+00	2.00E-02	2.00E-01	
Chromium	3.36E+01	41 / 41	1.10E+00	NA	2.00E+00	B	1.60E+00	4.00E-02	5.00E-01		9.80E-01	NA	2.00E+00	B	9.40E-01	NA	2.00E+00	B	1.20E+00	4.00E-02	5.00E-01	
Chromium III	2.60E+00	18 / 18	NA	NA	NA		1.60E+00	4.00E-02	5.00E-01		NA	NA	NA		NA	NA	NA		1.20E+00	4.00E-02	5.00E-01	
Cobalt	1.20E+01 B	41 / 41	2.70E+00	NA	1.00E+00		2.20E-01	3.00E-02	5.00E-01	J	3.50E-01	NA	1.00E+00	B	3.30E+00	NA	1.00E+00		4.30E-01	3.00E-02	5.00E-01	J
Copper	1.10E+01	41 / 41	2.70E+00	NA	2.00E+00		4.30E+00	1.30E-01	5.00E-01		1.70E+00	NA	2.00E+00	B	1.40E+00	NA	2.00E+00	B	2.30E+00	1.30E-01	5.00E-01	
Lead	3.10E+00 J	32 / 41	<	NA	1.00E+00		2.30E-01	1.10E-01	2.00E-01		5.60E-01	NA	1.00E+00	B	2.10E-01	NA	1.00E+00	B	<	1.10E-01	2.00E-01	U
Manganese	9.00E+02	39 / 41	7.30E-01	NA	1.00E+00	B	3.80E+00	6.00E-02	5.00E-01		7.10E+01	NA	1.00E+00		4.10E+02	NA	1.00E+00		2.01E+02	6.00E-02	5.00E-01	
Mercury	1.50E-01 J	3 / 41	NA	NA	NA		<	6.00E-02	2.00E-01	U	NA	NA	NA		NA	NA	NA		<	6.00E-02	2.00E-01	U
Molybdenum	5.79E+01	41 / 41	8.80E+00	NA	2.00E+00		8.80E+00	7.00E-02	5.00E-01		9.40E+00	NA	2.00E+00		9.00E+00	NA	2.00E+00		5.79E+01	7.00E-02	5.00E-01	
Selenium	4.57E+01	41 / 41	1.10E+01	NA	5.00E+00		1.48E+01	1.00E-01	1.00E+00		8.80E+00	NA	5.00E+00		7.00E+00	NA	5.00E+00		2.30E+00	1.00E-01	1.00E+00	
Silver	7.80E-02 J	2 / 41	NA	NA	NA		<	3.00E-02	2.00E-01	U	<	NA	5.00E+00	U	NA	NA	NA		<	3.00E-02	2.00E-01	U
Vanadium	7.80E+01	37 / 41	7.80E+00	NA	5.00E+00		4.46E+01	7.00E-02	5.00E-01		3.30E+01	NA	5.00E+00		1.50E+01	NA	5.00E+00		4.20E-01	7.00E-02	5.00E-01	J
Zinc	2.39E+03	39 / 41	7.00E+00	NA	1.00E+01	B	1.13E+03	1.20E+01	2.50E+02		7.60E+00	NA	1.00E+01	B	6.40E+00	NA	1.00E+01	B	1.71E+03	1.20E+01	2.50E+02	
WET CHEMISTRY PARAMETERS (µg/L)																						
Alkalinity	7.85E+05	31 / 41	2.30E+05	NA	5.00E+03		3.06E+05	8.52E+02	2.00E+03		NA	NA	NA		1.70E+05	NA	5.00E+03		9.98E+04	8.52E+02	2.00E+03	
Ammonia	8.91E+04	39 / 41	6.00E+01	NA	1.00E+02	B	3.84E+02	2.44E+02	5.00E+02	J	3.80E+01	NA	1.00E+02	B	7.00E+01	NA	1.00E+02	B	3.54E+02	2.44E+02	5.00E+02	J
Hexavalent Chromium	8.20E-01	1 / 41	NA	NA	NA		<	9.00E-02	5.00E-01	UJ	NA	NA	NA		NA	NA	NA		<	9.00E-02	5.00E-01	UJ
Nitrate-Nitrite	1.10E+04	35 / 41	1.40E+00	NA	1.00E+02		1.86E+03	2.80E+01	5.00E+02		6.60E+02	NA	1.00E+02		3.90E+02	NA	1.00E+02		8.73E+01	2.80E+01	5.00E+02	J
Phosphorus, Total Orthophosphate	1.91E+03	9 / 40	5.90E+00	NA	5.00E+01	B	<	2.15E+02	1.00E+03	U	NA	NA	NA		<	NA	5.00E+01	U	<	4.30E+02	2.00E+03	U
Total Dissolved Solids	1.21E+07	41 / 41	1.60E+06	NA	1.00E+05		1.51E+06	8.80E+03	2.00E+04		9.10E+05	NA	1.00E+04		1.00E+06	NA	1.00E+05		1.85E+06	8.80E+03	2.00E+04	
Total Organic Carbon	9.84E+04	32 / 41	1.20E+03	NA	1.00E+02		2.20E+03	7.00E+01	5.00E+02		4.70E+02	NA	1.00E+03	B	1.10E+04	NA	1.00E+02		2.60E+03	7.00E+01	5.00E+02	

Notes:

MDLs and/or sample results were not available for all historical data.

* There is no result for Phosphorus, Total Orthophosphate due to a misunderstanding with the laboratory. Hexavalent Chromium was re-sampled due to holding time exceedence in original sample.

µg/L = microgram per Liter
B = Estimated concentration - detected below the reporting limit
ID = Identification
MW = Monitoring Well
NA = Not Available
ND = Not Detected
Qual = Qualifier
RL = Reporting Limit
J = Estimated
U = Nondetect
UJ = Estimated Nondetect

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TABLE D-6
ANALYTICAL RESULTS COMPARISON FOR FIELD DUPLICATES COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW004				MAO1MW054				
DATE COLLECTED	January 27, 2009				January 27, 2009				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	RPD
VOLATILE ORGANIC COMPOUNDS (µg/L)									
1,1,1,2-Tetrachloroethane	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
1,1,1-Trichloroethane	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<2X
1,1,2,2-Tetrachloroethane	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<2X
1,1,2-Trichloroethane	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<2X
1,1-Dichloroethane	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<2X
1,1-Dichloroethene	<	3.00E-01	1.00E+00	U	<	3.00E-01	1.00E+00	U	<2X
1,1-Dichloropropene	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<2X
1,2,3-Trichlorobenzene	<	2.90E-01	1.00E+00	U	<	2.90E-01	1.00E+00	U	<2X
1,2,3-Trichloropropane	<	3.90E-01	2.00E+00	U	<	3.90E-01	2.00E+00	U	<2X
1,2,4-Trichlorobenzene	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<2X
1,2,4-Trimethylbenzene	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<2X
1,2-Dibromo-3-Chloropropane	<	7.60E-01	2.00E+00	U	<	7.60E-01	2.00E+00	U	<2X
1,2-Dibromoethane (Ethylene Dibromide)	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<2X
1,2-Dichlorobenzene	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<2X
1,2-Dichloroethane	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<2X
1,2-Dichloroethene (cis)	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<2X
1,2-Dichloroethene (trans)	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<2X
1,2-Dichloropropane	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<2X
1,3,5-Trimethylbenzene	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<2X
1,3-Dichlorobenzene	<	1.10E-01	1.00E+00	U	<	1.10E-01	1.00E+00	U	<2X
1,3-Dichloropropane	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<2X
1,4-Dichlorobenzene	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<2X
2,2-Dichloropropane	<	2.20E-01	1.00E+00	U	<	2.20E-01	1.00E+00	U	<2X
2-Chlorotoluene	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<2X
2-Hexanone	<	9.20E-01	1.00E+01	U	<	9.20E-01	1.00E+01	U	<2X
4-Chlorotoluene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
4-Methyl-2-Pentanone	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<2X
Acetone	<	9.50E-01	1.00E+01	U	<	9.50E-01	1.00E+01	U	<2X
Benzene	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<2X
Bromobenzene	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<2X
Bromochloromethane	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<2X
Bromodichloromethane	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<2X
Bromoform	<	1.40E-01	1.00E+00	U	<	1.40E-01	1.00E+00	U	<2X
Bromomethane	<	2.40E-01	2.00E+00	U	<	2.40E-01	2.00E+00	U	<2X
Carbon Disulfide	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<2X
Carbon Tetrachloride	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<2X
Chlorobenzene	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<2X
Chloroethane	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<2X
Chloroform	<	7.00E-02	1.00E+00	U	<	7.00E-02	1.00E+00	U	<2X
Chloromethane	<	3.10E-01	1.00E+00	U	<	3.10E-01	1.00E+00	U	<2X
cis-1,3-Dichloropropene	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<2X
Dibromomethane	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	<2X
Dichlorodifluoromethane	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<2X
Ethylbenzene	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<2X

TABLE D-6
ANALYTICAL RESULTS COMPARISON FOR FIELD DUPLICATES COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW004				MAO1MW054				
DATE COLLECTED	January 27, 2009				January 27, 2009				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	RPD
Hexachlorobutadiene	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<2X
Isopropylbenzene (Cumene)	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<2X
m,p-Xylene (sum of isomers)	<	1.90E-01	2.00E+00	U	<	1.90E-01	2.00E+00	U	<2X
Methyl Ethyl Ketone (2-Butanone)	<	6.00E-01	1.00E+01	U	<	6.00E-01	1.00E+01	U	<2X
Methyl tert-Butyl Ether	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<2X
Methylene Chloride	<	3.50E-01	5.00E+00	U	<	3.50E-01	5.00E+00	U	<2X
Naphthalene	<	3.60E-01	1.00E+00	U	<	3.60E-01	1.00E+00	U	<2X
n-Butylbenzene	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<2X
n-Propylbenzene	<	2.10E-01	1.00E+00	U	<	2.10E-01	1.00E+00	U	<2X
o-Xylene (1,2-Dimethylbenzene)	<	1.90E-01	1.00E+00	U	<	1.90E-01	1.00E+00	U	<2X
p-Cymene (p-Isopropyltoluene)	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<2X
sec-Butylbenzene	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<2X
Styrene	<	2.50E-01	1.00E+00	U	<	2.50E-01	1.00E+00	U	<2X
tert-Butylbenzene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
Tetrachloroethene	<	1.50E-01	1.00E+00	U	<	1.50E-01	1.00E+00	U	<2X
Toluene	<	1.70E-01	1.00E+00	U	<	1.70E-01	1.00E+00	U	<2X
trans-1,3-Dichloropropene	<	1.80E-01	1.00E+00	U	<	1.80E-01	1.00E+00	U	<2X
Trichloroethene	<	1.60E-01	1.00E+00	U	<	1.60E-01	1.00E+00	U	<2X
Trichlorofluoromethane	<	2.40E-01	1.00E+00	U	<	2.40E-01	1.00E+00	U	<2X
Vinyl Chloride	<	2.30E-01	1.00E+00	U	<	2.30E-01	1.00E+00	U	<2X
SEMIVOLATILE ORGANIC COMPOUNDS (ug/L)									
1,2,4-Trichlorobenzene	<	1.30E+00	1.00E+01	U	<	1.30E+00	1.00E+01	U	<2X
1,2-Dichlorobenzene	<	1.10E+00	1.00E+01	U	<	1.10E+00	1.00E+01	U	<2X
1,2-Diphenylhydrazine	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<2X
1,3-Dichlorobenzene	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<2X
1,4-Dichlorobenzene	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<2X
2,4,5-Trichlorophenol	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<2X
2,4,6-Trichlorophenol	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<2X
2,4-Dichlorophenol	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<2X
2,4-Dimethylphenol	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<2X
2,4-Dinitrophenol	<	1.80E+00	2.00E+01	U	<	1.80E+00	2.00E+01	U	<2X
2,4-Dinitrotoluene	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<2X
2,6-Dinitrotoluene	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<2X
2-Chloronaphthalene	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<2X
2-Chlorophenol	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<2X
2-Methylnaphthalene	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<2X
2-Methylphenol (o-cresol)	<	1.90E+00	1.00E+01	U	<	1.90E+00	1.00E+01	U	<2X
2-Nitroaniline	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<2X
2-Nitrophenol	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<2X
3,3-Dichlorobenzidine	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<2X
3-Nitroaniline	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<2X
3&4-Methylphenol	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<2X
4,6-Dinitro-2-methylphenol	<	2.20E+00	2.00E+01	U	<	2.20E+00	2.00E+01	U	<2X
4-Bromophenyl-phenylether	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<2X
4-Chloro-3-methylphenol	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<2X

TABLE D-6
ANALYTICAL RESULTS COMPARISON FOR FIELD DUPLICATES COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW004				MAO1MW054				
DATE COLLECTED	January 27, 2009				January 27, 2009				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	RPD
4-Chloroaniline	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<2X
4-Chlorophenyl-phenylether	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<2X
4-Nitroaniline	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<2X
Acenaphthene	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<2X
Acenaphthylene	<	2.30E+00	1.00E+01	U	<	2.30E+00	1.00E+01	U	<2X
Anthracene	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<2X
Benzo(a)anthracene	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<2X
Benzo(a)pyrene	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<2X
Benzo(b)fluoranthene	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<2X
Benzo(g,h,i)perylene	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<2X
Benzo(k)fluoranthene	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<2X
Benzyl Alcohol	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<2X
bis(2-Chloroethoxy)methane	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<2X
bis(2-Chloroethyl)ether	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<2X
bis(2-chloroisopropyl)ether	<	2.00E+00	1.00E+01	U	<	2.00E+00	1.00E+01	U	<2X
bis(2-Ethylhexyl)phthalate	<	2.90E+00	2.00E+01	U	<	2.90E+00	2.00E+01	U	<2X
Butylbenzylphthalate	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<2X
Carbazole	<	3.30E+00	1.00E+01	U	<	3.30E+00	1.00E+01	U	<2X
Chrysene	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<2X
Dibenz(a,h)anthracene	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<2X
Dibenzofuran	<	2.40E+00	2.00E+01	U	<	2.40E+00	2.00E+01	U	<2X
Diethylphthalate	<	3.00E+00	1.00E+01	U	<	3.00E+00	1.00E+01	U	<2X
Dimethylphthalate	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<2X
Di-n-butylphthalate	<	3.20E+00	1.00E+01	U	<	3.20E+00	1.00E+01	U	<2X
Di-n-octylphthalate	<	2.60E+00	1.00E+01	U	<	2.60E+00	1.00E+01	U	<2X
Fluoranthene	<	2.90E+00	1.00E+01	U	<	2.90E+00	1.00E+01	U	<2X
Fluorene	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<2X
Hexachlorobenzene	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<2X
Hexachlorobutadiene	<	9.00E-01	1.00E+01	U	<	9.00E-01	1.00E+01	U	<2X
Hexachloroethane	<	8.00E-01	1.00E+01	U	<	8.00E-01	1.00E+01	U	<2X
Indeno(1,2,3-cd)pyrene	<	2.40E+00	1.00E+01	U	<	2.40E+00	1.00E+01	U	<2X
Isophorone	<	2.50E+00	1.00E+01	U	<	2.50E+00	1.00E+01	U	<2X
Naphthalene	<	1.80E+00	1.00E+01	U	<	1.80E+00	1.00E+01	U	<2X
Nitrobenzene	<	2.10E+00	1.00E+01	U	<	2.10E+00	1.00E+01	U	<2X
N-Nitrosodimethylamine	<	1.70E+00	1.00E+01	U	<	1.70E+00	1.00E+01	U	<2X
N-Nitroso-di-n-propylamine	<	2.20E+00	1.00E+01	U	<	2.20E+00	1.00E+01	U	<2X
N-Nitrosodiphenylamine	<	2.70E+00	1.00E+01	U	<	2.70E+00	1.00E+01	U	<2X
Pentachlorophenol	<	2.80E+00	2.00E+01	U	<	2.80E+00	2.00E+01	U	<2X
Phenanthrene	<	2.70E+00	2.00E+01	U	<	2.70E+00	2.00E+01	U	<2X
Phenol	<	1.00E+00	1.00E+01	U	<	1.00E+00	1.00E+01	U	<2X

TABLE D-6
ANALYTICAL RESULTS COMPARISON FOR FIELD DUPLICATES COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW004				MAO1MW054				
DATE COLLECTED	January 27, 2009				January 27, 2009				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	RPD
Pyrene	<	2.80E+00	1.00E+01	U	<	2.80E+00	1.00E+01	U	<2X
ORGANOCHLORINE PESTICIDES (µg/L)									
4,4-DDD	<	3.00E-03	5.00E-02	U	<	3.00E-03	5.00E-02	U	<2X
4,4-DDE	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<2X
4,4-DDT	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<2X
Aldrin	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<2X
alpha-BHC	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<2X
alpha-Chlordane	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<2X
beta-BHC	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<2X
delta-BHC	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<2X
Dieldrin	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<2X
Endosulfan I	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<2X
Endosulfan II	<	4.00E-03	5.00E-02	U	<	4.00E-03	5.00E-02	U	<2X
Endosulfan sulfate	<	5.00E-03	5.00E-02	U	<	5.00E-03	5.00E-02	U	<2X
Endrin	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<2X
Endrin aldehyde	<	9.00E-03	5.00E-02	U	<	9.00E-03	5.00E-02	U	<2X
Endrin ketone	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<2X
gamma-BHC (Lindane)	<	5.00E-03	5.00E-02	U	6.00E-03	5.00E-03	5.00E-02	J	<2X
gamma-Chlordane	<	6.00E-03	5.00E-02	U	<	6.00E-03	5.00E-02	U	<2X
Heptachlor	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<2X
Heptachlor epoxide	<	7.00E-03	5.00E-02	U	<	7.00E-03	5.00E-02	U	<2X
Methoxychlor	<	8.00E-03	5.00E-02	U	<	8.00E-03	5.00E-02	U	<2X
Toxaphene	<	3.80E-01	1.00E+00	U	<	3.80E-01	1.00E+00	U	<2X
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
1,3-Dinitrobenzene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
2,4,6-Trinitrotoluene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
2,4-Dinitrotoluene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
2,6-Dinitrotoluene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
2-Amino-4,6-dinitrotoluene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
2-Nitrotoluene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
3-Nitrotoluene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
4-Amino-2,6-dinitrotoluene	<	1.00E-01	1.00E+00	U	<	1.00E-01	1.00E+00	U	<2X
4-Nitrotoluene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
HMX	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<2X
Nitrobenzene	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
RDX	<	1.20E-01	1.00E+00	U	<	1.20E-01	1.00E+00	U	<2X
Tetryl	<	1.30E-01	1.00E+00	U	<	1.30E-01	1.00E+00	U	<2X
DISSOLVED METALS by 6010B (µg/L)									
Calcium	4.44E+04	2.72E+01	1.00E+02		4.48E+04	2.72E+01	1.00E+02		0.90

TABLE D-6
ANALYTICAL RESULTS COMPARISON FOR FIELD DUPLICATES COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW004				MAO1MW054				
DATE COLLECTED	January 27, 2009				January 27, 2009				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	RPD
Magnesium	4.28E+04	1.29E+01	5.00E+01		4.34E+04	1.29E+01	5.00E+01		1.39
Potassium	6.41E+03	9.95E+01	1.00E+03		6.48E+03	9.95E+01	1.00E+03		1.09
Sodium	4.01E+05	2.78E+03	2.00E+04		3.80E+05	2.78E+03	2.00E+04		5.38
Titanium	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U	<2X
DISSOLVED METALS by 6020A (µg/L)									
Antimony	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U	<2X
Arsenic	2.60E+00	9.00E-02	2.00E-01		2.20E+00	9.00E-02	2.00E-01		16.67
Barium	2.32E+01	4.00E-02	5.00E-01		2.25E+01	4.00E-02	5.00E-01		3.06
Beryllium	<	4.00E-02	2.00E-01	U	4.30E-02	4.00E-02	2.00E-01	J	<2X
Cadmium	1.40E+00	2.00E-02	2.00E-01	J	2.50E-01	2.00E-02	2.00E-01	J	>2X
Chromium	2.20E+00	4.00E-02	5.00E-01		1.70E+00	4.00E-02	5.00E-01		<2X
Chromium III	2.20E+00	4.00E-02	5.00E-01		1.70E+00	4.00E-02	5.00E-01		<2X
Cobalt	1.20E-01	3.00E-02	5.00E-01	J	1.00E-01	3.00E-02	5.00E-01	J	<2X
Copper	1.90E+00	1.30E-01	5.00E-01		1.60E+00	1.30E-01	5.00E-01		<2X
Lead	1.30E-01	1.10E-01	2.00E-01	J	<	1.10E-01	2.00E-01	U	<2X
Manganese	1.20E+00	6.00E-02	5.00E-01		9.80E-01	6.00E-02	5.00E-01		<2X
Mercury	1.60E-01	6.00E-02	2.00E-01	J	1.40E-01	6.00E-02	2.00E-01	J	<2X
Molybdenum	6.00E+00	7.00E-02	5.00E-01	J	1.08E+01	7.00E-02	5.00E-01	J	57.14
Selenium	1.39E+01	1.00E-01	1.00E+00	J	1.06E+01	1.00E-01	1.00E+00	J	26.94
Silver	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<2X
Vanadium	1.91E+01	7.00E-02	5.00E-01		1.95E+01	7.00E-02	5.00E-01		2.07
Zinc	2.57E+02	2.30E+00	5.00E+01	J	4.10E+02	2.30E+00	5.00E+01	J	45.88
WET CHEMISTRY PARAMETERS (µg/L)									
Ammonia	<	1.22E+02	5.00E+02	U	<	1.22E+02	5.00E+02	U	<2X
Bromide	1.63E+03	1.00E+02	5.00E+02		1.63E+03	1.00E+02	5.00E+02		0.00
Chloride	2.67E+05	2.00E+03	1.00E+04		2.67E+05	2.00E+03	1.00E+04		0.00
Fluoride	2.22E+03	1.60E+02	1.00E+03		2.21E+03	1.60E+02	1.00E+03		<2X
Hexavalent Chromium	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ	<2X
Perchlorate	4.20E+00	2.00E-01	6.00E-01		4.20E+00	2.00E-01	6.00E-01		0.00
Phosphorus, Total Orthophosphate	<	4.30E+02	1.00E+03	U	<	4.30E+02	1.00E+03	U	<2X
Sulfate	3.51E+05	2.25E+03	1.00E+04		3.50E+05	2.25E+03	1.00E+04		0.29
Sulfide	<	6.00E+02	2.00E+03	U	<	6.00E+02	2.00E+03	U	<2X
Total Organic Carbon	7.00E+02	7.00E+01	5.00E+02	J	7.00E+02	7.00E+01	5.00E+02	J	0.00

Notes:

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TABLE D-7
ANALYTICAL RESULTS COMPARISON FOR FIELD DUPLICATES COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MWQ-3				MWQ-53				
DATE COLLECTED	January 21, 2009				January 21, 2009				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	RPD
DISSOLVED METALS by 6010B (µg/L)									
Calcium	3.07E+04	2.72E+01	1.00E+02		3.11E+04	2.72E+01	1.00E+02		1.29
Magnesium	3.36E+04	1.29E+01	5.00E+01		3.45E+04	1.29E+01	5.00E+01		2.64
Potassium	5.78E+03	9.95E+01	1.00E+03		5.85E+03	9.95E+01	1.00E+03		1.20
Sodium	1.03E+05	5.56E+02	5.00E+03		1.01E+05	5.56E+02	5.00E+03		1.96
Titanium	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U	<2X
DISSOLVED METALS by 6020A (µg/L)									
Antimony	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U	<2X
Arsenic	1.15E+01	9.00E-02	2.00E-01		1.23E+01	9.00E-02	2.00E-01		6.72
Barium	2.75E+01	4.00E-02	5.00E-01		2.99E+01	4.00E-02	5.00E-01		8.36
Beryllium	5.10E-02	4.00E-02	2.00E-01	J	<	4.00E-02	2.00E-01	U	<2X
Cadmium	1.30E-01	2.00E-02	2.00E-01	J	5.80E-02	2.00E-02	2.00E-01	J	<2X
Chromium	1.00E+00	4.00E-02	5.00E-01		1.30E+00	4.00E-02	5.00E-01		<2X
Chromium III	1.00E+00	4.00E-02	5.00E-01		1.30E+00	4.00E-02	5.00E-01		<2X
Cobalt	4.30E-02	3.00E-02	5.00E-01	J	5.20E-02	3.00E-02	5.00E-01	J	<2X
Copper	2.50E+00	1.30E-01	5.00E-01	J	3.90E+00	1.30E-01	5.00E-01	J	43.75
Lead	1.90E-01	1.10E-01	2.00E-01	J	3.20E-01	1.10E-01	2.00E-01		<2X
Manganese	2.00E-01	6.00E-02	5.00E-01	J	2.50E-01	6.00E-02	5.00E-01	J	<2X
Mercury	1.00E-01	6.00E-02	2.00E-01	J	8.00E-02	6.00E-02	2.00E-01	J	<2X
Molybdenum	5.70E+00	7.00E-02	5.00E-01		5.50E+00	7.00E-02	5.00E-01		3.57
Selenium	7.20E+00	1.00E-01	1.00E+00		6.10E+00	1.00E-01	1.00E+00		16.54
Silver	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<2X
Vanadium	6.85E+01	7.00E-02	5.00E-01		7.49E+01	7.00E-02	5.00E-01		8.93
Zinc	<	2.30E+00	5.00E+01	U	<	2.30E+00	5.00E+01	U	<2X
WET CHEMISTRY PARAMETERS (µg/L)									
Alkalinity	1.87E+05	8.52E+02	2.00E+03		1.84E+05	8.52E+02	2.00E+03		1.62
Ammonia	2.41E+02	2.44E+02	5.00E+02	J	1.72E+02	2.44E+02	5.00E+02	J	<2X
Hexavalent Chromium	<	6.00E+00	2.00E+01	U	<	6.00E+00	2.00E+01	UJ	<2X
Nitrogen, Nitrate-Nitrite	9.97E+02	2.80E+01	5.00E+02		9.72E+02	2.80E+01	5.00E+02		2.54
Phosphorus, Total Orthophosphate	<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U	<2X
Total Dissolved Solids	4.71E+05	4.40E+03	1.00E+04		4.76E+05	4.40E+03	1.00E+04		1.06
Total Organic Carbon	<	7.00E+01	5.00E+02	U	<	7.00E+01	5.00E+02	U	<2X

Notes:

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ID = Identification
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TABLE D-7
ANALYTICAL RESULTS COMPARISON FOR FIELD DUPLICATES COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MWQ-7				MWQ-57				
DATE COLLECTED	January 20, 2009				January 20, 2009				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	RPD
DISSOLVED METALS by 6010B (µg/L)									
Calcium	6.05E+04	2.72E+01	1.00E+02		5.89E+04	2.72E+01	1.00E+02		2.68
Magnesium	2.62E+04	1.29E+01	5.00E+01		2.52E+04	1.29E+01	5.00E+01		3.89
Potassium	2.39E+03	9.95E+01	1.00E+03		2.27E+03	9.95E+01	1.00E+03		<2X
Sodium	9.23E+04	5.56E+02	5.00E+03		8.58E+04	5.56E+02	5.00E+03		7.30
Titanium	<	1.17E+00	5.00E+00	U	<	1.17E+00	5.00E+00	U	<2X
DISSOLVED METALS by 6020A (µg/L)									
Antimony	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U	<2X
Arsenic	6.80E+00	9.00E-02	2.00E-01		6.90E+00	9.00E-02	2.00E-01		1.46
Barium	3.10E+01	4.00E-02	5.00E-01		3.05E+01	4.00E-02	5.00E-01		1.63
Beryllium	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U	<2X
Cadmium	3.20E+00	2.00E-02	2.00E-01	J	1.60E+00	2.00E-02	2.00E-01	J	66.67
Chromium	8.50E-01	4.00E-02	5.00E-01		8.20E-01	4.00E-02	5.00E-01		<2X
Chromium III	8.50E-01	4.00E-02	5.00E-01		8.20E-01	4.00E-02	5.00E-01		<2X
Cobalt	7.20E-02	3.00E-02	5.00E-01	J	6.70E-02	3.00E-02	5.00E-01	J	<2X
Copper	4.20E+00	1.30E-01	5.00E-01	J	2.10E+00	1.30E-01	5.00E-01	J	>2X
Lead	3.10E+00	1.10E-01	2.00E-01	J	2.60E-01	1.10E-01	2.00E-01	J	>2X
Manganese	1.40E+00	6.00E-02	5.00E-01	J	2.50E-01	6.00E-02	5.00E-01	J	>2X
Mercury	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U	<2X
Molybdenum	5.10E+00	7.00E-02	5.00E-01		5.20E+00	7.00E-02	5.00E-01		1.94
Selenium	6.50E+00	1.00E-01	1.00E+00		6.20E+00	1.00E-01	1.00E+00		4.72
Silver	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<2X
Vanadium	4.54E+01	7.00E-02	5.00E-01		4.60E+01	7.00E-02	5.00E-01		1.31
Zinc	8.80E+00	2.30E+00	5.00E+01	J	4.40E+00	2.30E+00	5.00E+01	J	<2X
WET CHEMISTRY PARAMETERS (µg/L)									
Alkalinity	1.66E+05	8.52E+02	2.00E+03		1.83E+05		2.00E+03		9.74
Ammonia	6.32E+02	2.44E+02	5.00E+02		4.30E+02	8.52E+02	5.00E+02	J	<2X
Hexavalent Chromium	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	U	<2X
Nitrogen, Nitrate-Nitrite	1.67E+03	2.80E+01	5.00E+02		1.59E+03	2.80E+01	5.00E+02		4.91
Phosphorus, Total Orthophosphate	<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U	<2X
Total Dissolved Solids	5.04E+05	4.40E+03	1.00E+04		4.97E+05	4.40E+03	1.00E+04		1.40
Total Organic Carbon	4.35E+03	1.29E+02	5.00E+02	J	5.64E+03	1.29E+02	5.00E+02	J	25.83

Notes:

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TABLE D-7
ANALYTICAL RESULTS COMPARISON FOR FIELD DUPLICATES COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MWQ-10				MWQ-60				
DATE COLLECTED	January 20, 2009				January 20, 2009				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	RPD
DISSOLVED METALS by 6010B (µg/L)									
Calcium	<	1.17E+00	5.00E+00	U	6.70E+04	2.72E+01	1.00E+02		2.57
Magnesium	6.53E+04	2.72E+01	1.00E+02		3.84E+04	1.29E+01	5.00E+01		2.64
Potassium	3.74E+04	1.29E+01	5.00E+01		5.30E+03	9.95E+01	1.00E+03		0.95
Sodium	5.25E+03	9.95E+01	1.00E+03		1.95E+04	1.11E+02	1.00E+03		2.07
Titanium	1.91E+04	1.11E+02	1.00E+03		<	1.17E+00	5.00E+00	U	<2X
DISSOLVED METALS by 6020A (µg/L)									
Antimony	<	1.00E-02	2.00E-01	U	<	1.00E-02	2.00E-01	U	<2X
Arsenic	5.40E+00	9.00E-02	2.00E-01		5.50E+00	9.00E-02	2.00E-01		1.83
Barium	1.33E+02	4.00E-02	5.00E-01		1.43E+02	4.00E-02	5.00E-01		7.25
Beryllium	<	4.00E-02	2.00E-01	U	<	4.00E-02	2.00E-01	U	<2X
Cadmium	4.10E-01	2.00E-02	2.00E-01		2.30E+00	2.00E-02	2.00E-01	J	>2X
Chromium	3.50E-01	4.00E-02	5.00E-01	J	8.70E-02	4.00E-02	5.00E-01	J	<2X
Chromium III	3.50E-01	4.00E-02	5.00E-01	J	8.70E-02	4.00E-02	5.00E-01	J	<2X
Cobalt	9.10E-02	3.00E-02	5.00E-01	J	1.00E-01	3.00E-02	5.00E-01	J	<2X
Copper	4.70E+00	1.30E-01	5.00E-01		5.50E+00	1.30E-01	5.00E-01		15.69
Lead	1.00E+00	1.10E-01	2.00E-01	J	3.30E+00	1.10E-01	2.00E-01	J	106.98
Manganese	6.90E-01	6.00E-02	5.00E-01		5.40E-01	6.00E-02	5.00E-01		<2X
Mercury	<	6.00E-02	2.00E-01	U	<	6.00E-02	2.00E-01	U	<2X
Molybdenum	5.00E+00	7.00E-02	5.00E-01		5.70E+00	7.00E-02	5.00E-01		13.08
Selenium	3.00E+00	1.00E-01	1.00E+00		2.30E+00	1.00E-01	1.00E+00		<2X
Silver	<	3.00E-02	2.00E-01	U	<	3.00E-02	2.00E-01	U	<2X
Vanadium	3.29E+01	7.00E-02	5.00E-01		3.60E+01	7.00E-02	5.00E-01		9.00
Zinc	2.28E+01	2.30E+00	5.00E+01	J	2.50E+01	2.30E+00	5.00E+01	J	<2X
WET CHEMISTRY PARAMETERS (µg/L)									
Alkalinity	2.36E+05	8.52E+02	2.00E+03		2.45E+05		2.00E+03		3.74
Ammonia	6.13E+02	2.44E+02	5.00E+02		7.67E+02	8.52E+02	5.00E+02		<2X
Hexavalent Chromium	<	6.00E+00	2.00E+01	UJ	<	6.00E+00	2.00E+01	UJ	<2X
Nitrogen, Nitrate-Nitrite	9.65E+03	2.80E+01	5.00E+02		9.74E+03	2.80E+01	5.00E+02		0.93
Phosphorus, Total Orthophosphate	<	2.15E+02	1.00E+03	U	<	2.15E+02	1.00E+03	U	<2X
Total Dissolved Solids	4.12E+05	4.40E+03	1.00E+04		4.03E+05	4.40E+03	1.00E+04		2.21
Total Organic Carbon	4.13E+03	7.00E+01	5.00E+02	J	2.33E+03	7.00E+01	5.00E+02	J	>2X

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TABLE D-8
COMPARISON OF QA SPLIT DATA COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW003				MAO1MW003				
DATE COLLECTED	January 29, 2009				January 29, 2009				
LABORATORY	APPL				EMAX				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Agreement
VOLATILE ORGANIC COMPOUNDS (µg/L)									
1,1,1,2-Tetrachloroethane	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,1,1-Trichloroethane	<	1.40E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,1,2,2-Tetrachloroethane	<	1.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,1,2-Trichloroethane	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,1-Dichloroethane	<	1.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,1-Dichloroethene	<	3.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,1-Dichloropropene	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2,3-Trichlorobenzene	<	2.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2,3-Trichloropropane	<	3.90E-01	2.00E+00	U	<	2.00E-01	2.00E+00	U	Agree
1,2,4-Trichlorobenzene	<	2.10E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2,4-Trimethylbenzene	<	1.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2-Dibromo-3-Chloropropane	<	7.60E-01	2.00E+00	U	<	2.00E-01	2.00E+00	U	Agree
1,2-Dibromoethane (Ethylene Dibromide)	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2-Dichlorobenzene	<	1.70E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2-Dichloroethane	<	1.40E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2-Dichloroethene (cis)	<	1.60E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2-Dichloroethene (trans)	<	1.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,2-Dichloropropane	<	1.70E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,3,5-Trimethylbenzene	<	1.20E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,3-Dichlorobenzene	<	1.10E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,3-Dichloropropane	<	1.70E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,4-Dichlorobenzene	<	1.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
2,2-Dichloropropane	<	2.20E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
2-Chlorotoluene	<	1.40E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
2-Hexanone	<	9.20E-01	1.00E+01	U	<	5.00E+00	1.00E+01	U	Agree
4-Chlorotoluene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
4-Methyl-2-Pentanone	<	1.90E+00	1.00E+01	U	<	5.00E+00	1.00E+01	U	Agree
Acetone	<	9.50E-01	1.00E+01	U	<	5.00E+00	1.00E+01	U	Agree
Benzene	<	1.60E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Bromobenzene	<	1.60E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Bromochloromethane	<	1.50E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Bromodichloromethane	<	1.40E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Bromoform	<	1.40E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Bromomethane	<	2.40E-01	2.00E+00	U	<	2.00E-01	2.00E+00	U	Agree
Carbon Disulfide	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Carbon Tetrachloride	<	1.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Chlorobenzene	<	2.10E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Chloroethane	<	2.10E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Chloroform	<	7.00E-02	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Chloromethane	<	3.10E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
cis-1,3-Dichloropropene	<	1.50E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree

TABLE D-8
COMPARISON OF QA SPLIT DATA COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW003				MAO1MW003				
DATE COLLECTED	January 29, 2009				January 29, 2009				
LABORATORY	APPL				EMAX				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Agreement
Dibromomethane	<	2.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Dichlorodifluoromethane	<	1.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Ethylbenzene	<	2.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Hexachlorobutadiene	<	1.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Isopropylbenzene (Cumene)	<	1.60E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
m,p-Xylene (sum of isomers)	<	1.90E-01	2.00E+00	U	<	2.00E-01	2.00E+00	U	Agree
Methyl Ethyl Ketone (2-Butanone)	<	6.00E-01	1.00E+01	U	<	5.00E+00	1.00E+01	U	Agree
Methyl t-Butyl Ether	<	1.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Methylene Chloride	<	3.50E-01	5.00E+00	U	<	2.00E-01	5.00E+00	U	Agree
Naphthalene	<	3.60E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
n-Butylbenzene	<	1.50E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
n-Propylbenzene	<	2.10E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
o-Xylene (1,2-Dimethylbenzene)	<	1.90E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
p-Cymene (p-Isopropyltoluene)	<	1.20E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
sec-Butylbenzene	<	1.20E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Styrene	<	2.50E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
t-Butylbenzene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Tetrachloroethene	<	1.50E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Toluene	<	1.70E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
trans-1,3-Dichloropropene	<	1.80E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Trichloroethene	<	1.60E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Trichlorofluoromethane	<	2.40E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Vinyl Chloride	<	2.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
1,2,4-Trichlorobenzene	<	1.30E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
1,2-Dichlorobenzene	<	1.10E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
1,3-Dichlorobenzene	<	1.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
1,4-Dichlorobenzene	<	1.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2,4,5-Trichlorophenol	<	2.30E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2,4,6-Trichlorophenol	<	2.50E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2,4-Dichlorophenol	<	2.50E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2,4-Dimethylphenol	<	2.40E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2,4-Dinitrophenol	<	1.80E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
2,4-Dinitrotoluene	<	2.70E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
2,6-Dinitrotoluene	<	2.70E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
2-Chloronaphthalene	<	2.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2-Chlorophenol	<	2.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2-Methylnaphthalene	<	1.80E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2-Methylphenol (o-cresol)	<	1.90E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
2-Nitroaniline	<	2.40E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
2-Nitrophenol	<	2.10E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
3,3-Dichlorobenzidine	<	3.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree

TABLE D-8
COMPARISON OF QA SPLIT DATA COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW003				MAO1MW003				
DATE COLLECTED	January 29, 2009				January 29, 2009				
LABORATORY	APPL				EMAX				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Agreement
3-Nitroaniline	<	3.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
3 & 4-Methylphenol	<	1.70E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
4,6-Dinitro-2-methylphenol	<	2.20E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
4-Bromophenyl-phenylether	<	2.60E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
4-Chloro-3-methylphenol	<	2.60E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
4-Chloroaniline	<	2.70E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
4-Chlorophenyl-phenylether	<	2.60E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
4-Nitroaniline	<	2.50E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Acenaphthene	<	2.30E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Acenaphthylene	<	2.30E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Anthracene	<	2.80E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Benzo(a)anthracene	<	2.60E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Benzo(a)pyrene	<	2.50E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Benzo(b)fluoranthene	<	2.90E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Benzo(g,h,i)perylene	<	2.50E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Benzo(k)fluoranthene	<	2.90E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Benzyl Alcohol	<	2.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
bis(2-Chloroethoxy)methane	<	2.40E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
bis(2-Chloroethyl)ether	<	2.20E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
bis(2-chloroisopropyl)ether	<	2.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
bis(2-Ethylhexyl)phthalate	<	2.90E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
Butylbenzylphthalate	<	2.80E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Carbazole	<	3.30E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Chrysene	<	2.80E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Dibenz(a,h)anthracene	<	2.50E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Dibenzofuran	<	2.40E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
Diethylphthalate	<	3.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Dimethylphthalate	<	2.90E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Di-n-butylphthalate	<	3.20E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Di-n-octylphthalate	<	2.60E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Fluoranthene	<	2.90E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Fluorene	<	2.50E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Hexachlorobenzene	<	2.70E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
Hexachlorobutadiene	<	9.00E-01	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Hexachloroethane	<	8.00E-01	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Indeno(1,2,3-cd)pyrene	<	2.40E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Isophorone	<	2.50E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Naphthalene	<	1.80E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Nitrobenzene	<	2.10E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
N-Nitrosodimethylamine	<	1.70E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
N-Nitroso-di-n-propylamine	<	2.20E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
N-Nitrosodiphenylamine	<	2.70E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree

TABLE D-8
COMPARISON OF QA SPLIT DATA COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW003				MAO1MW003				
DATE COLLECTED	January 29, 2009				January 29, 2009				
LABORATORY	APPL				EMAX				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Agreement
Pentachlorophenol	<	2.80E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
Phenanthrene	<	2.70E+00	2.00E+01	U	<	4.80E+00	1.90E+01	U	Agree
Phenol	<	1.00E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
Pyrene	<	2.80E+00	1.00E+01	U	<	4.80E+00	9.50E+00	U	Agree
PESTICIDES (ORGANOCHLORINE) (µg/L)									
4,4-DDD	<	3.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
4,4-DDE	<	4.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
4,4-DDT	<	7.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Aldrin	<	9.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
alpha-BHC	<	5.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
alpha-Chlordane	<	7.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
beta-BHC	<	8.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
delta-BHC	<	5.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Dieldrin	<	5.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Endosulfan I	<	5.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Endosulfan II	<	4.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Endosulfan sulfate	<	5.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Endrin	<	7.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Endrin aldehyde	<	9.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Endrin ketone	<	6.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
gamma-BHC (Lindane)	<	5.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
gamma-Chlordane	<	6.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Heptachlor	<	8.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Heptachlor epoxide	<	7.00E-03	5.00E-02	U	<	1.90E-02	4.80E-02	U	Agree
Methoxychlor	<	8.00E-03	5.00E-02	U	<	1.90E-01	9.50E-01	U	Agree
Toxaphene	<	3.80E-01	1.00E+00	U	<	9.50E-01	1.90E+00	U	Agree
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
1,3-Dinitrobenzene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
2,4,6-Trinitrotoluene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
2,4-Dinitrotoluene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
2,6-Dinitrotoluene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
2-Amino-4,6-dinitrotoluene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
2-Nitrotoluene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
3-Nitrotoluene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
4-Amino-2,6-dinitrotoluene	<	1.00E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
4-Nitrotoluene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
HMX	<	1.20E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Nitrobenzene	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree

TABLE D-8
COMPARISON OF QA SPLIT DATA COLLECTED AT AOC 1
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MAO1MW003				MAO1MW003				
DATE COLLECTED	January 29, 2009				January 29, 2009				
LABORATORY	APPL				EMAX				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Agreement
RDX	<	1.20E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
Tetryl	<	1.30E-01	1.00E+00	U	<	2.00E-01	1.00E+00	U	Agree
DISSOLVED METALS by 6010B (µg/L)									
Calcium	6.12E+04	2.72E+01	1.00E+02		5.93E+04	1.00E+02	1.00E+03		Agree
Magnesium	6.33E+04	1.29E+01	5.00E+01		5.93E+04	1.00E+02	1.00E+03		Agree
Potassium	7.79E+03	9.95E+01	1.00E+03		8.05E+03	1.00E+02	1.00E+03		Agree
Sodium	6.55E+05	2.78E+03	2.50E+04		4.74E+05	1.00E+02	1.00E+03		Agree
Titanium	<	1.17E+00	5.00E+00	U	<	5.00E+00	2.00E+01	U	Agree
DISSOLVED METALS by 6020A (µg/L)									
Antimony	<	1.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Arsenic	2.50E+00	9.00E-02	2.00E-01		1.44E+00	5.00E-01	1.00E+00		Agree
Barium	1.63E+01	4.00E-02	5.00E-01		1.69E+01	5.00E-01	1.00E+00		Agree
Beryllium	<	4.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Cadmium	1.60E-01	2.00E-02	2.00E-01	J	<	5.00E-01	1.00E+00	U	Agree
Chromium	1.90E+00	4.00E-02	5.00E-01		2.06E+00	5.00E-01	1.00E+00		Agree
Cobalt	7.70E-02	3.00E-02	5.00E-01	J	<	5.00E-01	1.00E+00	U	Agree
Copper	2.20E+00	1.30E-01	5.00E-01		1.31E+00	5.00E-01	1.00E+00		Agree
Lead	1.50E-01	1.10E-01	2.00E-01	J	<	5.00E-01	1.00E+00	U	Agree
Manganese	6.70E-01	6.00E-02	5.00E-01		1.15E+00	5.00E-01	1.00E+00		Agree
Mercury	<	6.00E-02	2.00E-01	U	<	5.00E+00	2.00E-01	U	Agree
Molybdenum	4.00E+00	7.00E-02	5.00E-01		4.58E+00	1.00E+00	2.00E+00		Agree
Selenium	1.30E+01	1.00E-01	1.00E+00		4.38E+00	5.00E-01	1.00E+00		Disagree
Silver	<	3.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Vanadium	1.15E+01	7.00E-02	5.00E-01		1.33E+01	5.00E-01	1.00E+00		Agree
Zinc	4.47E+02	2.30E+00	5.00E+01		3.87E+02	5.00E+00	1.00E+01		Agree
WET CHEMISTRY PARAMETERS (µg/L)									
Ammonia	<	1.22E+02	5.00E+02	U	<	5.00E+01	5.00E+02	U	Agree
Bromide	2.29E+03	1.00E+02	1.00E+03		1.86E+03	2.50E+02	5.00E+02		Agree
Chloride	4.80E+05	2.00E+03	2.50E+04		5.13E+05	1.00E+02	5.00E+04		Agree
Fluoride	2.18E+03	1.60E+02	2.00E+03		2.72E+03	5.00E+01	1.00E+03		Agree
Hexavalent Chromium	<	6.00E+00	2.00E+01	UJ	<	5.00E+00	2.00E+01	U	Agree
Perchlorate	4.00E-01	2.00E-01	6.00E-01	J	4.50E-01	8.00E-02	2.00E-01		Agree
Phosphorus, Total Orthophosphate	<	4.30E+02	2.00E+03	U	2.95E+01	2.00E+01	5.00E+01	J	Agree
Sulfate	5.52E+05	2.25E+03	2.50E+04		5.96E+05	2.50E+02	5.00E+04		Agree
Sulfide	<	6.00E+02	2.00E+03	U	<	4.00E+02	2.00E+03	U	Agree
Total Organic Carbon	7.00E+02	7.00E+01	5.00E+02		5.86E+02	5.00E+02	1.00E+03	J	Agree

Notes:
µg/L = microgram per Liter
J = Estimated
MDL = Method Detection Limit
Qual = Qualifier
RL = Reporting Limit
U = Nondetect
UJ = Estimated Nondetect

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TABLE D-9
COMPARISON OF QA SPLIT DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MWQ-7				MWQ-7				
DATE COLLECTED	January 20, 2009				January 20, 2009				
LABORATORY	APPL				EMAX				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Agreement
DISSOLVED METALS by 6010B (µg/L)									
Calcium	6.05E+04	2.72E+01	1.00E+02		5.68E+04	1.00E+02	1.00E+03		Agree
Magnesium	2.62E+04	1.29E+01	5.00E+01		2.42E+04	1.00E+02	1.00E+03		Agree
Potassium	2.39E+03	9.95E+01	1.00E+03		2.36E+03	1.00E+02	1.00E+03		Agree
Sodium	9.23E+04	5.56E+02	5.00E+03		7.14E+04	1.00E+02	1.00E+03		Agree
Titanium	<	1.17E+00	5.00E+00	U	<	5.00E+00	2.00E+01	U	Agree
DISSOLVED METALS by 6020A (µg/L)									
Antimony	<	1.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Arsenic	6.80E+00	9.00E-02	2.00E-01		5.32E+00	5.00E-01	1.00E+00		Agree
Barium	3.10E+01	4.00E-02	5.00E-01		2.92E+01	5.00E-01	1.00E+00		Agree
Beryllium	<	4.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Cadmium	3.20E+00	2.00E-02	2.00E-01	J	<	5.00E-01	1.00E+00	U	Disagree
Chromium	8.50E-01	4.00E-02	5.00E-01		1.30E+00	5.00E-01	1.00E+00		Agree
Cobalt	7.20E-02	3.00E-02	5.00E-01	J	<	5.00E-01	1.00E+00	U	Agree
Copper	4.20E+00	1.30E-01	5.00E-01	J	3.97E+00	5.00E-01	1.00E+00		Agree
Lead	3.10E+00	1.10E-01	2.00E-01	J	8.66E-01	5.00E-01	1.00E+00	J	Agree
Manganese	1.40E+00	6.00E-02	5.00E-01	J	<	5.00E-01	1.00E+00	U	Agree
Mercury	<	6.00E-02	2.00E-01	U	<	5.00E+00	2.00E-01	U	Agree
Molybdenum	5.10E+00	7.00E-02	5.00E-01		4.67E+00	1.00E+00	2.00E+00		Agree
Selenium	6.50E+00	1.00E-01	1.00E+00		4.54E+00	5.00E-01	1.00E+00		Agree
Silver	<	3.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Vanadium	4.54E+01	7.00E-02	5.00E-01		4.54E+01	5.00E-01	1.00E+00		Agree
Zinc	8.80E+00	2.30E+00	5.00E+01	J	1.42E+01	5.00E+00	1.00E+01		Agree
WET CHEMISTRY PARAMETERS (µg/L)									
Alkalinity	1.66E+05	8.52E+02	2.00E+03		1.55E+05	1.00E+03	2.00E+03		Agree
Ammonia	6.32E+02	2.44E+02	5.00E+02		2.19E+02	5.00E+01	5.00E+02	J	Agree
Hexavalent chromium	<	6.00E+00	2.00E+01	UJ	<	5.00E+00	2.00E+01	U	Agree
Nitrate-Nitrite	1.67E+03	2.80E+01	5.00E+02		1.49E+03	2.00E+01	1.00E+03		Agree
Phosphorus, Total Orthophosphate	<	2.15E+02	1.00E+03	U	<	2.00E+01	5.00E+01	U	Agree
Total Dissolved Solids	5.04E+05	4.40E+03	1.00E+04		5.75E+05	5.00E+03	1.00E+04		Agree
Total Organic Carbon	4.35E+03	1.29E+02	5.00E+02	J	7.20E+02	5.00E+02	1.00E+03	J	Major Disagree

Notes:
µg/L = microgram per Liter
J = Estimated
MDL = Method Detection Limit
Qual = Qualifier
RL = Reporting Limit
U = Nondetect
UJ = Estimated Nondetect

TABLE D-9
COMPARISON OF QA SPLIT DATA COLLECTED AT GROUNDWATER QUALITY WELL NETWORK MONITORING WELLS JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

FIELD ID	MWQ-10				MWQ-10				
DATE COLLECTED	January 20, 2009				January 20, 2009				
LABORATORY	APPL				EMAX				
	Result	MDL	RL	Qual	Result	MDL	RL	Qual	Agreement
DISSOLVED METALS by 6010B (µg/L)									
Calcium	6.53E+04	2.72E+01	1.00E+02		6.39E+04	1.00E+02	1.00E+03		Agree
Magnesium	3.74E+04	1.29E+01	5.00E+01		3.64E+04	1.00E+02	1.00E+03		Agree
Potassium	5.25E+03	9.95E+01	1.00E+03		5.36E+03	1.00E+02	1.00E+03		Agree
Sodium	1.91E+04	1.11E+02	1.00E+03		1.90E+04	1.00E+02	1.00E+03		Agree
Titanium	<	1.17E+00	5.00E+00	U	<	5.00E+00	2.00E+01	U	Agree
DISSOLVED METALS by 6020A (µg/L)									
Antimony	<	1.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Arsenic	5.40E+00	9.00E-02	2.00E-01		4.40E+00	5.00E-01	1.00E+00		Agree
Barium	1.33E+02	4.00E-02	5.00E-01		1.24E+02	5.00E-01	1.00E+00		Agree
Beryllium	<	4.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Cadmium	4.10E-01	2.00E-02	2.00E-01		<	5.00E-01	1.00E+00	U	Agree
Chromium	3.50E-01	4.00E-02	5.00E-01	J	8.35E-01	5.00E-01	1.00E+00	J	Agree
Cobalt	9.10E-02	3.00E-02	5.00E-01	J	<	5.00E-01	1.00E+00	U	Agree
Copper	4.70E+00	1.30E-01	5.00E-01		5.10E+00	5.00E-01	1.00E+00		Agree
Lead	1.00E+00	1.10E-01	2.00E-01		7.71E-01	5.00E-01	1.00E+00	J	Agree
Manganese	6.90E-01	6.00E-02	5.00E-01		<	5.00E-01	1.00E+00	U	Agree
Mercury	<	6.00E-02	2.00E-01	U	<	5.00E+00	2.00E-01	U	Agree
Molybdenum	5.00E+00	7.00E-02	5.00E-01		4.75E+00	1.00E+00	2.00E+00		Agree
Selenium	3.00E+00	1.00E-01	1.00E+00		2.15E+00	5.00E-01	1.00E+00		Agree
Silver	<	3.00E-02	2.00E-01	U	<	5.00E-01	1.00E+00	U	Agree
Vanadium	3.29E+01	7.00E-02	5.00E-01		3.16E+01	5.00E-01	1.00E+00		Agree
Zinc	2.28E+01	2.30E+00	5.00E+01		2.13E+01	5.00E+00	1.00E+01		Agree
WET CHEMISTRY PARAMETERS (µg/L)									
Alkalinity	2.36E+05	8.52E+02	2.00E+03		2.20E+05	1.00E+03	2.00E+03		Agree
Ammonia	6.13E+02	2.44E+02	5.00E+02		9.08E+01	5.00E+01	5.00E+02	J	Major Disagree
Hexavalent chromium	<	6.00E+00	2.00E+01	UJ	<	5.00E+00	2.00E+01	U	Agree
Nitrate-Nitrite	9.65E+03	2.80E+01	5.00E+02		9.43E+03	2.00E+01	1.00E+03		Agree
Phosphorus, Total Orthophosphate	<	2.15E+02	1.00E+03	U	2.21E+01	2.00E+01	5.00E+01	J	Agree
Total Dissolved Solids	4.12E+05	4.40E+03	1.00E+04		4.10E+05	5.00E+03	1.00E+04		Agree
Total Organic Carbon	4.13E+03	7.00E+01	5.00E+02	J	7.79E+02	5.00E+02	1.00E+03	J	Major Disagree

Notes:
µg/L = microgram per Liter
J = Estimated
MDL = Method Detection Limit
Qual = Qualifier
RL = Reporting Limit
U = Nondetect
UJ = Estimated Nondetect

TABLE D-10
SUMMARY OF DATA QUALIFICATIONS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

SDG	Field ID	Matrix	Analysis	Analyte	NEW RL	URS Qual.	Code	Comments
57934	MWQ-10	Water	Dissolved Metals	Cadmium	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-60	Water	Dissolved Metals	Cadmium	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-7	Water	Dissolved Metals	Cadmium	-	**J**	FD	Field Duplicate RPD > 25%
57934	MWQ-57	Water	Dissolved Metals	Cadmium	-	**J**	FD	Field Duplicate RPD > 25%
57934	MWQ-7	Water	Dissolved Metals	Copper	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-57	Water	Dissolved Metals	Copper	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-10	Water	Dissolved Metals	Lead	-	**J**	FD	Field Duplicate RPD > 25%
57934	MWQ-60	Water	Dissolved Metals	Lead	-	**J**	FD	Field Duplicate RPD > 25%
57934	MWQ-7	Water	Dissolved Metals	Lead	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-57	Water	Dissolved Metals	Lead	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-7	Water	Dissolved Metals	Manganese	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-57	Water	Dissolved Metals	Manganese	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-10	Water	Wet Chemistry	Total Organic Carbon	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-60	Water	Wet Chemistry	Total Organic Carbon	-	**J**	FD	> 2X RL difference between the parent and field duplicate
57934	MWQ-7	Water	Wet Chemistry	Total Organic Carbon	-	**J**	FD	Field Duplicate RPD > 25%
57934	MWQ-57	Water	Wet Chemistry	Total Organic Carbon	-	**J**	FD	Field Duplicate RPD > 25%
57934	MWQ-6	Water	Wet Chemistry	Alkalinity	-	**J**	HT	Analyzed outside holding time
57934	MWQ-10	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57934	MWQ-60	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57934	MWQ-7	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57934	MWQ-6	Water	Dissolved Metals	Copper	-	**J**	LD	Laboratory Duplicate RPD > 20%
57934	MWQ-10	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
57934	MWQ-60	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
57934	MWQ-7	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
57934	MWQ-6	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
57934	MWQ-60	Water	Dissolved Metals	Mercury	-	**U**	MB	Method Blank Contamination
57934	MWQ-57	Water	Dissolved Metals	Mercury	-	**U**	MB	Method Blank Contamination
57934	MWQ-6	Water	Dissolved Metals	Mercury	-	**U**	MB	Method Blank Contamination
57934	MWQ-6	Water	Dissolved Metals	Arsenic	-	**J**	MH	MS Recovery High
57934	MWQ-6	Water	Dissolved Metals	Barium	-	**J**	MH	MS Recovery High
57934	MWQ-6	Water	Dissolved Metals	Cadmium	-	**J**	MH	MS Recovery High
57934	MWQ-6	Water	Wet Chemistry	Total Organic Carbon	-	**J**	ML	MS Recovery Low
57939	MWQ-53	Water	Dissolved Metals	Copper	-	**J**	FD	Field Duplicate RPD > 25%
57939	MWQ-3	Water	Dissolved Metals	Copper	-	**J**	FD	Field Duplicate RPD > 25%
57939	MWQ-53	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57939	MWQ-53	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
57939	MWQ-3	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination

TABLE D-10
SUMMARY OF DATA QUALIFICATIONS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

SDG	Field ID	Matrix	Analysis	Analyte	NEW RL	URS Qual.	Code	Comments
57939	MWQ-53	Water	Dissolved Metals	Zinc	-	**U**	MB	Method Blank Contamination
57939	MWQ-3	Water	Dissolved Metals	Zinc	-	**U**	MB	Method Blank Contamination
57939	MWQ-2	Water	Dissolved Metals	Antimony	-	**J**	MH	MS Recovery High
57939	MWQ-2	Water	Dissolved Metals	Arsenic	-	**J**	MH	MS Recovery High
57939	MWQ-2	Water	Dissolved Metals	Barium	-	**J**	MH	MS Recovery High
57939	MWQ-2	Water	Dissolved Metals	Cadmium	-	**J**	MH	MS Recovery High
57939	MWQ-2	Water	Dissolved Metals	Selenium	-	**J**	MH	MS Recovery High
57954	MWL-9	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57954	MWQ-20	Water	Wet Chemistry	Total Organic Carbon	-	**UJ**	HT	Analyzed outside holding time
57954	MWL-9	Water	Dissolved Metals	Antimony	0.22	U	MB	Method Blank Contamination
57954	MWQ-18	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
57954	MWQ-19	Water	Dissolved Metals	Antimony	0.37	**U**	MB	Method Blank Contamination
57954	MWL-9	Water	Dissolved Metals	Chromium	0.65	U	MB	Method Blank Contamination
57954	MWQ-20	Water	Dissolved Metals	Potassium	-	**J**	ML	MS Recovery Low
57961	MWQ-21	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57961	MWQ-22	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57961	MWQ-5	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
57981	M114MW001	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57981	M114MW004	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
57981	M114MW001	Water	Wet Chemistry	Total Organic Carbon	-	**UJ**	HT	Analyzed outside holding time
57981	M114MW002	Water	Wet Chemistry	Total Organic Carbon	-	**UJ**	HT	Analyzed outside holding time
57981	M114MW004	Water	Wet Chemistry	Total Organic Carbon	-	**UJ**	HT	Analyzed outside holding time
57981	M114MW001	Water	Wet Chemistry	Ammonia	-	**UJ**	LL	LCS Recovery Low
57981	M114MW002	Water	Wet Chemistry	Ammonia	-	**UJ**	LL	LCS Recovery Low
57981	M114MW004	Water	Wet Chemistry	Ammonia	-	**UJ**	LL	LCS Recovery Low
57981	M114MW002	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
57981	M114MW004	Water	VOCs	n-Butylbenzene	-	**U**	MB	Method Blank Contamination
57981	M114MW001	Water	Dissolved Metals	Silver	-	**U**	MB	Method Blank Contamination
57981	M114MW002	Water	Dissolved Metals	Silver	-	**U**	MB	Method Blank Contamination
57981	M114MW004	Water	Dissolved Metals	Silver	-	**U**	MB	Method Blank Contamination
57981	M114MW001	Water	VOCs	Chloroethane	-	**J**	SH	Surrogate Recovery High
57981	M114MW001	Water	VOCs	Toluene	-	**J**	SH	Surrogate Recovery High
57981	M114MW001	Water	VOCs	Vinyl chloride	-	**J**	SH	Surrogate Recovery High
58006	MAO1MW004	Water	Dissolved Metals	Cadmium	-	**J**	FD	> 2X RL difference between the parent and field duplicate
58006	MAO1MW054	Water	Dissolved Metals	Cadmium	-	**J**	FD	> 2X RL difference between the parent and field duplicate
58006	MAO1MW004	Water	Dissolved Metals	Molybdenum	-	**J**	FD	Field Duplicate RPD > 25%
58006	MAO1MW054	Water	Dissolved Metals	Molybdenum	-	**J**	FD	Field Duplicate RPD > 25%
58006	MAO1MW004	Water	Dissolved Metals	Selenium	-	**J**	FD	Field Duplicate RPD > 25%

TABLE D-10
SUMMARY OF DATA QUALIFICATIONS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

SDG	Field ID	Matrix	Analysis	Analyte	NEW RL	URS Qual.	Code	Comments
58006	MAO1MW054	Water	Dissolved Metals	Selenium	-	**J**	FD	Field Duplicate RPD > 25%
58006	MAO1MW004	Water	Dissolved Metals	Zinc	-	**J**	FD	> 2X RL difference between the parent and field duplicate
58006	MAO1MW054	Water	Dissolved Metals	Zinc	-	**J**	FD	> 2X RL difference between the parent and field duplicate
58006	M114MW003	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58006	MAO1MW002	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58006	MAO1MW004	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58006	MAO1MW054	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58006	M114MW003	Water	Wet Chemistry	Total Organic Carbon	-	**UJ**	HT	Analyzed outside holding time
58006	MAO1MW004	Water	Wet Chemistry	Total Organic Carbon	-	**J**	HT	Analyzed outside holding time
58006	MAO1MW054	Water	Wet Chemistry	Total Organic Carbon	-	**J**	HT	Analyzed outside holding time
58006	MAO1MW002	Water	Dissolved Metals	Arsenic	-	**J**	LD	Laboratory Duplicate RPD > 20%
58006	MAO1MW002	Water	Dissolved Metals	Chromium	-	**J**	LD	Laboratory Duplicate RPD > 20%
58006	MAO1MW002	Water	Dissolved Metals	Selenium	-	**J**	LD	Laboratory Duplicate RPD > 20%
58006	M114MW003	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58006	MAO1MW002	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58006	MAO1MW004	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58006	MAO1MW054	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58006	MAO1MW002	Water	VOCs	n-Butylbenzene	-	**U**	MB	Method Blank Contamination
58006	M114MW003	Water	Dissolved Metals	Silver	-	**U**	MB	Method Blank Contamination
58006	MAO1MW002	Water	Dissolved Metals	Silver	-	**U**	MB	Method Blank Contamination
58006	MAO1MW054	Water	Dissolved Metals	Silver	-	**U**	MB	Method Blank Contamination
58006	MAO1MW002	Water	Wet Chemistry	Ammonia	-	**J**	ML	MS Recovery Low
58006	MAO1MW002	Water	Wet Chemistry	Perchlorate	-	**J**	ML	MS Recovery Low
58006	MAO1MW002	Water	VOCs	Toluene	-	**U**	TB	Detected in the Trip Blank
58016	MAO1MW001	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58016	MAO1MW003	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58016	MWQ-14	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58016	MAO1MW001	Water	VOCs	1,2,4-Trichlorobenzene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	VOCs	1,2,4-Trimethylbenzene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	VOCs	1,3,5-Trimethylbenzene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	VOCs	4-Chlorotoluene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58016	MAO1MW003	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58016	MWQ-14	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	VOCs	Hexachlorobutadiene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	VOCs	n-Butylbenzene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW003	Water	VOCs	n-Butylbenzene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	VOCs	p-Isopropyltoluene	-	**U**	MB	Method Blank Contamination

TABLE D-10
SUMMARY OF DATA QUALIFICATIONS
JANUARY/FEBRUARY 2009 SAMPLING EVENT - MELROSE AIR FORCE RANGE

SDG	Field ID	Matrix	Analysis	Analyte	NEW RL	URS Qual.	Code	Comments
58016	MAO1MW001	Water	VOCs	sec-Butylbenzene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	Dissolved Metals	Silver	-	**U**	MB	Method Blank Contamination
58016	MWQ-14	Water	Dissolved Metals	Silver	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	VOCs	tert-Butylbenzene	-	**U**	MB	Method Blank Contamination
58016	MAO1MW001	Water	Dissolved Metals	Calcium	-	**J**	ML	MS Recovery Low
58016	MAO1MW001	Water	Dissolved Metals	Magnesium	-	**J**	ML	MS Recovery Low
58024	MWL-4	Water	Dissolved Metals	Antimony	0.23	**U**	MB	Method Blank Contamination
58041	MWL-4	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58041	MWL-5	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58041	MWL-6	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58041	MWL-7	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time
58041	MWL-4	Water	Wet Chemistry	Total Dissolved Solids	-	**J**	HT	Analyzed outside holding time
58041	MWL-5	Water	Wet Chemistry	Total Dissolved Solids	-	**J**	HT	Analyzed outside holding time
58041	MWL-6	Water	Wet Chemistry	Total Dissolved Solids	-	**J**	HT	Analyzed outside holding time
58041	MWL-7	Water	Wet Chemistry	Total Dissolved Solids	-	**J**	HT	Analyzed outside holding time
58041	MWQ-4	Water	Wet Chemistry	Total Dissolved Solids	-	**J**	HT	Analyzed outside holding time
58041	MWQ-4	Water	Dissolved Metals	Copper	-	**J**	LD	Laboratory Duplicate RPD > 20%
58041	MWL-5	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58041	MWL-6	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58041	MWL-7	Water	Dissolved Metals	Antimony	-	**U**	MB	Method Blank Contamination
58041	MWL-6	Water	Dissolved Metals	Chromium	-	**U**	MB	Method Blank Contamination
58054	MAO2MW001I	Water	Hexavalent Chromium	Hexavalent Chromium	-	**UJ**	HT	Analyzed outside holding time

FD = Field Duplicate
HT = Holding Time
LD = Laboratory Duplicate
MB = Method Blank
TB = Trip Blank
ML = MS Recvoery Low
MH = MS Recovery High
SH = Surrogate Recovery High
LL = LCS Recovery Low

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-10 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX89904

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	412000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	236000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	613		ug/L		YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	9650		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															
Analysis Method : 9060					**Dilution: 1**															
Total Organic Carbon (TOC)	4130		ug/L		YES	**J**														

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-10 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89904

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	65300		ug/L		YES															
Magnesium	37400		ug/L		YES															
Potassium	5250		ug/L		YES															
Sodium	19100		ug/L		YES															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	5.4		ug/L		YES															
Barium	133		ug/L		YES															
Cadmium	0.41		ug/L		YES	**J**														
Chromium	0.35		ug/L	J	YES	**J**								J						
Chromium III	0.35		ug/L	J	YES	**J**								J						
Cobalt	0.091		ug/L	J	YES	**J**								J						
Copper	4.7		ug/L		YES															
Lead	1.0		ug/L		YES	**J**														
Manganese	0.69		ug/L		YES															
Molybdenum	5.0		ug/L		YES															
Vanadium	32.9		ug/L		YES															
Zinc	22.8		ug/L	J	YES	**J**								J						
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-10 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX89904

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.011		ug/L	J	YES	**U**			U											
Beryllium	0.2		ug/L	U	YES															
Silver	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-10 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX89904

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Selenium	3.0		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-57 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89907

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	85800		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-57 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX89907

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	497000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	183000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	430		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	1590		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															
Analysis Method : 9060					**Dilution: 1**															
Total Organic Carbon (TOC)	5640		ug/L		YES	**J**														

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-57 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89907

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	58900		ug/L		YES															
Magnesium	25200		ug/L		YES															
Potassium	2270		ug/L		YES															
Sodium	71700		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	6.9		ug/L		YES															
Barium	30.5		ug/L		YES															
Cadmium	1.6		ug/L		YES	**J**														
Chromium	0.82		ug/L		YES															
Chromium III	0.82		ug/L		YES															
Cobalt	0.067		ug/L	J	YES	**J**								J						
Copper	2.1		ug/L		YES	**J**														
Lead	0.26		ug/L		YES	**J**														
Manganese	0.25		ug/L	J	YES	**J**								J						
Molybdenum	5.2		ug/L		YES															
Vanadium	46.0		ug/L		YES															
Zinc	4.4		ug/L	J	YES	**J**								J						
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.081		ug/L	J	YES	**U**			U											

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-57 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX89907

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.2		ug/L	U	YES															
Beryllium	0.2		ug/L	U	YES															
Silver	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-57 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX89907

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Selenium	6.2		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-6 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89906

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	72800		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-6 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX89906

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	376000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	251000		ug/L		YES	**J**		J												
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	207		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	4540		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															
Analysis Method : 9060					**Dilution: 1**															
Total Organic Carbon (TOC)	2140		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-6 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89906

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	42900		ug/L		YES															
Magnesium	20500		ug/L		YES															
Potassium	2360		ug/L		YES															
Sodium	61800		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	8.0		ug/L		YES	**J**					J									
Barium	35.3		ug/L		YES	**J**					J									
Cadmium	0.070		ug/L	J	YES	**J**					J			J						
Chromium	0.93		ug/L		YES															
Chromium III	0.93		ug/L		YES															
Cobalt	0.047		ug/L	J	YES	**J**								J						
Copper	2.6		ug/L		YES	**J**						J								
Lead	0.38		ug/L		YES															
Manganese	0.63		ug/L		YES															
Molybdenum	2.7		ug/L		YES															
Vanadium	51.2		ug/L		YES															
Zinc	33.0		ug/L	J	YES	**J**								J						
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.065		ug/L	J	YES	**U**			U											

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-6 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX89906

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.028		ug/L	J	YES	**U**			U											
Beryllium	0.2		ug/L	U	YES															
Silver	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-6 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX89906

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Selenium	2.6		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-60 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX89903

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	403000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	245000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	767		ug/L		YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	9740		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															
Analysis Method : 9060					**Dilution: 1**															
Total Organic Carbon (TOC)	2330		ug/L		YES	**J**														

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-60 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89903

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	67000		ug/L		YES															
Magnesium	38400		ug/L		YES															
Potassium	5300		ug/L		YES															
Sodium	19500		ug/L		YES															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	5.5		ug/L		YES															
Barium	143		ug/L		YES															
Cadmium	2.3		ug/L		YES	**J**														
Chromium	0.087		ug/L	J	YES	**J**								J						
Chromium III	0.087		ug/L	J	YES	**J**								J						
Cobalt	0.100		ug/L	J	YES	**J**								J						
Copper	5.5		ug/L		YES															
Lead	3.3		ug/L		YES	**J**														
Manganese	0.54		ug/L		YES															
Molybdenum	5.7		ug/L		YES															
Vanadium	36.0		ug/L		YES															
Zinc	25.0		ug/L	J	YES	**J**								J						
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.085		ug/L	J	YES	**U**			U											

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-60 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX89903

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.040		ug/L	J	YES	**U**			U											
Beryllium	0.2		ug/L	U	YES															
Silver	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-60 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX89903

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Selenium	2.3		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-7 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89905

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	92300		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-7 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX89905

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	504000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	166000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	632		ug/L		YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	1670		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															
Analysis Method : 9060					**Dilution: 1**															
Total Organic Carbon (TOC)	4350		ug/L		YES	**J**														

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-7 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89905

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	60500		ug/L		YES															
Magnesium	26200		ug/L		YES															
Potassium	2390		ug/L		YES															
Sodium	74800		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	6.8		ug/L		YES															
Barium	31.0		ug/L		YES															
Cadmium	3.2		ug/L		YES	**J**														
Chromium	0.85		ug/L		YES															
Chromium III	0.85		ug/L		YES															
Cobalt	0.072		ug/L	J	YES	**J**								J						
Copper	4.2		ug/L		YES	**J**														
Lead	3.1		ug/L		YES	**J**														
Manganese	1.4		ug/L		YES	**J**														
Molybdenum	5.1		ug/L		YES															
Vanadium	45.4		ug/L		YES															
Zinc	8.8		ug/L	J	YES	**J**								J						
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-7 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX89905

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.046		ug/L	J	YES	**U**			U											
Beryllium	0.2		ug/L	U	YES															
Silver	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-7 **Lab Report Batch :** 57934 **Lab ID :** APPL
Sample Date : 01/20/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX89905

Reviewed By / Date : AJS 3/5/2009 **Approved By / Date :** AJS 3/5/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Selenium	6.5		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-2 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89929

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 100**															
Calcium	201000		ug/L		YES															
Magnesium	136000		ug/L		YES															
Sodium	2440000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-2 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX89929

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 10**															
Total Dissolved Solids	7360000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	93700		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	531		ug/L		YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	500		ug/L	U	YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 25**															
ortho-Phosphate	25000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-2 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89929

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	183000		ug/L	E	NO															
Magnesium	125000		ug/L	E	NO															
Potassium	9390		ug/L		YES															
Sodium	50000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	0.87		ug/L		YES	**J**					J									
Barium	31.3		ug/L		YES	**J**					J									
Cadmium	0.13		ug/L	J	YES	**J**					J			J						
Chromium	2.6		ug/L		YES															
Chromium III	2.6		ug/L		YES															
Cobalt	1.0		ug/L		YES															
Copper	3.5		ug/L		YES															
Lead	0.11		ug/L	J	YES	**J**								J						
Manganese	458		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	0.5		ug/L	U	YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.13		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-2 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX89929

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Beryllium	0.044		ug/L	J	YES	**J**								J						
Molybdenum	22.8		ug/L		YES															
Selenium	2.2		ug/L		YES	**J**					J									

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-2 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX89929

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	2.0		ug/L		YES	**J**					J	J								
Zinc	846		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-2 **Lab Report Batch :** K0901358 **Lab ID :** CAS_K
Sample Date : 01/21/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901358-002

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.5		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-3 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89930

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	103000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-3 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX89930

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	471000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	187000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	241		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	997		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-3 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89930

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	30700		ug/L		YES															
Magnesium	33600		ug/L		YES															
Potassium	5780		ug/L		YES															
Sodium	83900		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	11.5		ug/L		YES															
Barium	27.5		ug/L		YES															
Cadmium	0.13		ug/L	J	YES	**J**								J						
Chromium	1.0		ug/L		YES															
Chromium III	1.0		ug/L		YES															
Cobalt	0.043		ug/L	J	YES	**J**								J						
Copper	2.5		ug/L		YES	**J**														
Lead	0.19		ug/L	J	YES	**J**								J						
Manganese	0.20		ug/L	J	YES	**J**								J						
Silver	0.2		ug/L	U	YES															
Vanadium	68.5		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.10		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-3 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX89930

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Beryllium	0.051		ug/L	J	YES	**J**								J						
Molybdenum	5.7		ug/L		YES															
Selenium	7.2		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-3 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX89930

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.062		ug/L	J	YES	**U**			U											
Zinc	9.4		ug/L	J	YES	**U**			U											

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-3 **Lab Report Batch :** K0901358 **Lab ID :** CAS_K
Sample Date : 01/21/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901358-003

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.5		mg/L	U	Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-53 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89928

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	101000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-53 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX89928

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	476000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	184000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	172		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	972		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-53 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX89928

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	31100		ug/L		YES															
Magnesium	34500		ug/L		YES															
Potassium	5850		ug/L		YES															
Sodium	85500		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	12.3		ug/L		YES															
Barium	29.9		ug/L		YES															
Cadmium	0.058		ug/L	J	YES	**J**								J						
Chromium	1.3		ug/L		YES															
Chromium III	1.3		ug/L		YES															
Cobalt	0.052		ug/L	J	YES	**J**								J						
Copper	3.9		ug/L		YES	**J**														
Lead	0.32		ug/L		YES															
Manganese	0.25		ug/L	J	YES	**J**								J						
Silver	0.2		ug/L	U	YES															
Vanadium	74.9		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.080		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-53 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX89928

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Beryllium	0.2		ug/L	U	YES															
Molybdenum	5.5		ug/L		YES															
Selenium	6.1		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-53 **Lab Report Batch :** 57939 **Lab ID :** APPL
Sample Date : 01/21/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX89928

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.17		ug/L	J	YES	**U**			U											
Zinc	13.0		ug/L	J	YES	**U**			U											

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-53 **Lab Report Batch :** K0901358 **Lab ID :** CAS_K
Sample Date : 01/21/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901358-001

Reviewed By / Date : AJS 3/7/2009 **Approved By / Date :** AJS 3/7/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.5		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-9 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90022

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	68600		ug/L		YES															
Analysis Method : 6020A					**Dilution: 5**															
Zinc	2110		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-9 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90022

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	427000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	192000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	201		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	6940		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-9 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90022

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	60800		ug/L		YES															
Magnesium	10000		ug/L		YES															
Potassium	2500		ug/L		YES															
Sodium	62200		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	2.9		ug/L		YES															
Barium	66.4		ug/L		YES															
Cadmium	0.45		ug/L		YES															
Chromium	0.65		ug/L		YES	**U**			U											
Chromium III	0.65		ug/L		YES															
Cobalt	0.15		ug/L	J	YES	**J**								J						
Copper	3.3		ug/L		YES															
Lead	0.32		ug/L		YES															
Manganese	6.4		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	19.4		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-9 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90022

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.22		ug/L		YES	**U**			U											
Molybdenum	2.8		ug/L		YES															
Selenium	3.8		ug/L		YES															
Zinc	2090		ug/L	E	NO															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-9 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX90022

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Beryllium	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-9 **Lab Report Batch :** K0901360 **Lab ID :** CAS_K
Sample Date : 01/22/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901360-001

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	2.4		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-18 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90023

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	63900		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-18 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90023

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	445000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	197000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	421		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	534		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-18 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90023

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	38800		ug/L		YES															
Magnesium	18200		ug/L		YES															
Potassium	2430		ug/L		YES															
Sodium	62600		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	8.5		ug/L		YES															
Barium	34.3		ug/L		YES															
Cadmium	1.3		ug/L		YES															
Chromium	0.88		ug/L		YES															
Chromium III	0.88		ug/L		YES															
Cobalt	0.071		ug/L	J	YES	**J**								J						
Copper	2.2		ug/L		YES															
Lead	1.4		ug/L		YES															
Manganese	0.51		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	52.9		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-18 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90023

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.15		ug/L	J	YES	**U**			U											
Molybdenum	4.5		ug/L		YES															
Selenium	3.8		ug/L		YES															
Zinc	171		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-18 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX90023

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Beryllium	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-18 **Lab Report Batch :** K0901360 **Lab ID :** CAS_K
Sample Date : 01/22/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901360-002

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.7		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-19 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: DL2/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90024

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 100**															
Calcium	334000		ug/L		YES															
Magnesium	224000		ug/L		YES															
Sodium	1330000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-19 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90024

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 10**															
Total Dissolved Solids	4700000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	455000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	570		ug/L		YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	62.7		ug/L	J	YES	**J**								J						
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 5**															
ortho-Phosphate	5000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-19 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90024

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	304000		ug/L	E	NO															
Magnesium	206000		ug/L	E	NO															
Potassium	10100		ug/L		YES															
Sodium	1210000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	5.3		ug/L		YES															
Barium	28.9		ug/L		YES															
Cadmium	1.4		ug/L		YES															
Chromium	33.6		ug/L		YES															
Chromium III	0.88		ug/L		YES															
Cobalt	0.65		ug/L		YES															
Copper	4.8		ug/L		YES															
Lead	0.31		ug/L		YES															
Manganese	472		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	0.5		ug/L	U	YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-19 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90024

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.37		ug/L		YES	**U**			U											
Molybdenum	0.42		ug/L	J	YES	**J**								J						
Selenium	12.8		ug/L		YES															
Zinc	956		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-19 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX90024

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Beryllium	0.048		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-19 **Lab Report Batch :** K0901360 **Lab ID :** CAS_K
Sample Date : 01/22/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901360-003

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 10**															
TOTAL ORGANIC CARBON (TOC)	98.4		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-20 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90025

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 100**															
Calcium	628000		ug/L		YES															
Magnesium	362000		ug/L		YES															
Sodium	3360000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-20 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90025

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 20**															
Total Dissolved Solids	12100000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	64800		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	583		ug/L		YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	110		ug/L	J	YES	**J**								J						
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 10**															
ortho-Phosphate	10000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-20 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90025

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	529000		ug/L	E	NO															
Magnesium	308000		ug/L	E	NO															
Potassium	13300		ug/L		YES	**J**					J									
Sodium	50000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	5.1		ug/L		YES															
Barium	25.1		ug/L		YES															
Cadmium	0.61		ug/L		YES															
Chromium	2.5		ug/L		YES															
Chromium III	2.5		ug/L		YES															
Cobalt	2.4		ug/L		YES															
Copper	4.0		ug/L		YES															
Lead	0.16		ug/L	J	YES	**J**								J						
Manganese	886		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	0.5		ug/L	U	YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-20 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90025

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.63		ug/L		YES															
Molybdenum	14.1		ug/L		YES															
Selenium	30.4		ug/L		YES															
Zinc	384		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-20 **Lab Report Batch :** 57954 **Lab ID :** APPL
Sample Date : 01/22/2009 **Analysis Type: RES3** **Sample Matrix :** AQ
Lab Sample ID: AX90025

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Beryllium	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-20 **Lab Report Batch :** K0901360 **Lab ID :** CAS_K
Sample Date : 01/22/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901360-004

Reviewed By / Date : AJS 3/8/2009 **Approved By / Date :** AJS 3/8/2009

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 2**															
TOTAL ORGANIC CARBON (TOC)	1.0		mg/L	i XU	Yes	**UJ**		UJ												

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-21 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90047

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 10**															
Calcium	182000		ug/L		YES															
Sodium	251000		ug/L		YES															
Analysis Method : 6020A					**Dilution: 5**															
Zinc	1130		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-21 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90047

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 2**															
Total Dissolved Solids	1510000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	306000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	384		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	1860		ug/L		YES															
Analysis Method : 7199					**Dilution: 1**															
Hexavalent chromium	0.090		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	215.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-21 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90047

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	156000		ug/L	E	NO															
Magnesium	75100		ug/L		YES															
Potassium	10600		ug/L		YES															
Sodium	203000		ug/L	E	NO															
Titanium	1.17		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	6.6		ug/L		YES															
Barium	42.2		ug/L		YES															
Cadmium	2.0		ug/L		YES															
Chromium	1.6		ug/L		YES															
Chromium III	1.6		ug/L		YES															
Cobalt	0.22		ug/L	J	YES	**J**								J						
Copper	4.3		ug/L		YES															
Lead	0.23		ug/L		YES															
Manganese	3.8		ug/L		YES															
Molybdenum	8.8		ug/L		YES															
Selenium	14.8		ug/L		YES															
Silver	0.03		ug/L	U	YES															
Vanadium	44.6		ug/L		YES															
Zinc	1170		ug/L	E	NO															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.06		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-21 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90047

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.88		ug/L		YES															
Beryllium	0.04		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-21 **Lab Report Batch :** K0901361 **Lab ID :** CAS_K
Sample Date : 01/23/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901361-001

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	2200		ug/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-22 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90048

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 5**															
Zinc	1710		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-22 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: DL2/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90048

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 20**															
Sodium	590000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-22 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90048

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 2**															
Total Dissolved Solids	1850000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	99800		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	354		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	87.3		ug/L	J	YES	**J**								J						
Analysis Method : 7199					**Dilution: 1**															
Hexavalent chromium	0.090		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 2**															
ortho-Phosphate	430.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-22 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90048

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	56600		ug/L		YES															
Magnesium	22400		ug/L		YES															
Potassium	3520		ug/L		YES															
Sodium	517000		ug/L	E	NO															
Titanium	1.17		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	1.1		ug/L		YES															
Barium	65.1		ug/L		YES															
Cadmium	2.2		ug/L		YES															
Chromium	1.2		ug/L		YES															
Chromium III	1.2		ug/L		YES															
Cobalt	0.43		ug/L	J	YES	**J**								J						
Copper	2.3		ug/L		YES															
Lead	0.11		ug/L	U	YES															
Manganese	201		ug/L		YES															
Molybdenum	57.9		ug/L		YES															
Selenium	2.3		ug/L		YES															
Silver	0.03		ug/L	U	YES															
Vanadium	0.42		ug/L	J	YES	**J**								J						
Zinc	1800		ug/L	E	NO															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.06		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-22 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90048

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	1.0		ug/L		YES															
Beryllium	0.04		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-22 **Lab Report Batch :** K0901361 **Lab ID :** CAS_K
Sample Date : 01/23/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901361-002

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	2600		ug/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-5 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: DL2/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90049

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	83600		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-5 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90049

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	428000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	214000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	473		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	6060		ug/L		YES															
Analysis Method : 7199					**Dilution: 1**															
Hexavalent chromium	0.82		ug/L		YES															
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	215.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-5 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90049

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	43800		ug/L		YES															
Magnesium	24000		ug/L		YES															
Potassium	2950		ug/L		YES															
Sodium	70700		ug/L	E	NO															
Titanium	1.17		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	9.2		ug/L		YES															
Barium	34.2		ug/L		YES															
Cadmium	1.2		ug/L		YES															
Chromium	0.95		ug/L		YES															
Chromium III	0.13		ug/L	J	YES	**J**								J						
Cobalt	0.052		ug/L	J	YES	**J**								J						
Copper	4.5		ug/L		YES															
Lead	0.34		ug/L		YES															
Manganese	1.7		ug/L		YES															
Molybdenum	4.2		ug/L		YES															
Selenium	8.8		ug/L		YES															
Silver	0.03		ug/L	U	YES															
Vanadium	60.2		ug/L		YES															
Zinc	36.2		ug/L	J	YES	**J**								J						
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.06		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-5 **Lab Report Batch :** 57961 **Lab ID :** APPL
Sample Date : 01/23/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90049

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.20		ug/L		YES	**U**			U											
Beryllium	0.04		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-5 **Lab Report Batch :** K0901361 **Lab ID :** CAS_K
Sample Date : 01/23/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901361-003

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	800		ug/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW001 **Lab Report Batch :** 57981 **Lab ID :** APPL
Sample Date : 01/26/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90172

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES	**UJ**				UJ										
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 8260B					**Dilution: 1**															
Chloroethane	0.4		ug/L	J	YES	**J**							J	J						
Toluene	0.2		ug/L	J	YES	**J**							J	J						
Vinyl chloride	0.7		ug/L	J	YES	**J**							J	J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW001 **Lab Report Batch :** 57981 **Lab ID :** APPL
Sample Date : 01/26/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90172

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Lead	0.11		ug/L	J	YES	**J**								J						
Silver	0.037		ug/L	J	YES	**U**			U											
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.077		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW001 **Lab Report Batch :** K0901362 **Lab ID :** CAS_K
Sample Date : 01/26/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901362-002

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 2**															
TOTAL ORGANIC CARBON (TOC)	1.0		mg/L	i XU	Yes	**UJ**		UJ												

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW002 **Lab Report Batch :** 57981 **Lab ID :** APPL
Sample Date : 01/26/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90174

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES	**UJ**				UJ										
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	968		ug/L	J	YES	**J**								J						
Analysis Method : 9056					**Dilution: 25**															
Fluoride	2180		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW002 **Lab Report Batch :** 57981 **Lab ID :** APPL
Sample Date : 01/26/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90174

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.20		ug/L		YES	**U**			U											
Beryllium	0.054		ug/L	J	YES	**J**								J						
Cobalt	0.39		ug/L	J	YES	**J**								J						
Silver	0.041		ug/L	J	YES	**U**			U											
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.11		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW002 **Lab Report Batch :** K0901362 **Lab ID :** CAS_K
Sample Date : 01/26/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901362-003

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 2**															
TOTAL ORGANIC CARBON (TOC)	1.0		mg/L	i XU	Yes	**UJ**		UJ												

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW004 **Lab Report Batch :** 57981 **Lab ID :** APPL
Sample Date : 01/26/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90171

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES	**UJ**				UJ										
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 8260B					**Dilution: 1**															
n-Butylbenzene	0.2		ug/L	B J	YES	**U**			U											

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW004 **Lab Report Batch :** 57981 **Lab ID :** APPL
Sample Date : 01/26/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90171

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Beryllium	0.045		ug/L	J	YES	**J**								J						
Silver	0.051		ug/L	J	YES	**U**			U											
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.085		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : M114MW004 **Lab Report Batch :** K0901362 **Lab ID :** CAS_K
Sample Date : 01/26/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901362-001

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 2**															
TOTAL ORGANIC CARBON (TOC)	1.0		mg/L	i XU	Yes	**UJ**		UJ												

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Qualified Results)

Client Sample ID : TB2-260109 **Lab Report Batch :** 57981 **Lab ID :** APPL
Sample Date : 01/26/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90173

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Acetone	3.4		ug/L	J	YES	**J**								J						
m,p-Xylenes	0.3		ug/L	B J	YES	**U**			U											

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 100**															
Calcium	422000		ug/L		YES															
Magnesium	355000		ug/L		YES															
Sodium	3270000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	2000.0		ug/L	U	YES															
Analysis Method : 8081A					**Dilution: 1**															
4,4'-DDD	0.05		ug/L	U	YES															
4,4'-DDE	0.05		ug/L	U	YES															
4,4'-DDT	0.05		ug/L	U	YES															
Aldrin	0.05		ug/L	U	YES															
alpha-BHC	0.05		ug/L	U	YES															
alpha-Chlordane	0.05		ug/L	U	YES															
beta-BHC	0.05		ug/L	U	YES															
delta-BHC	0.05		ug/L	U	YES															
Dieldrin	0.05		ug/L	U	YES															
Endosulfan I	0.05		ug/L	U	YES															
Endosulfan II	0.05		ug/L	U	YES															
Endosulfan sulfate	0.05		ug/L	U	YES															
Endrin	0.05		ug/L	U	YES															
Endrin aldehyde	0.05		ug/L	U	YES															
Endrin ketone	0.05		ug/L	U	YES															
gamma-BHC	0.05		ug/L	U	YES															
gamma-Chlordane	0.05		ug/L	U	YES															
Heptachlor	0.05		ug/L	U	YES															
Heptachlor epoxide	0.05		ug/L	U	YES															
Methoxychlor	0.05		ug/L	U	YES															
Toxaphene	1.0		ug/L	U	YES															
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	1.0		ug/L	U	YES															
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Toluene	0.3		ug/L	J	YES	**J**								J						
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															
Analysis Method : 8270C					**Dilution: 1**															
1,2,4-Trichlorobenzene	10.0		ug/L	U	YES															
1,2-Dichlorobenzene	10.0		ug/L	U	YES															
1,2-Diphenylhydrazine	10.0		ug/L	U	YES															
1,3-Dichlorobenzene	10.0		ug/L	U	YES															
1,4-Dichlorobenzene	10.0		ug/L	U	YES															
2,4,5-Trichlorophenol	10.0		ug/L	U	YES															
2,4,6-Trichlorophenol	10.0		ug/L	U	YES															
2,4-Dichlorophenol	10.0		ug/L	U	YES															
2,4-Dimethylphenol	10.0		ug/L	U	YES															
2,4-Dinitrophenol	20.0		ug/L	U	YES															
2,4-Dinitrotoluene	20.0		ug/L	U	YES															
2,6-Dinitrotoluene	20.0		ug/L	U	YES															
2-Chloronaphthalene	10.0		ug/L	U	YES															
2-Chlorophenol	10.0		ug/L	U	YES															
2-METHYL-4,6-DINITROPHENOL	20.0		ug/L	U	YES															
2-Methylnaphthalene	10.0		ug/L	U	YES															
2-Methylphenol	10.0		ug/L	U	YES															
2-Nitroaniline	20.0		ug/L	U	YES															
2-Nitrophenol	10.0		ug/L	U	YES															
3,3'-Dichlorobenzidine	10.0		ug/L	U	YES															
3/4-Methylphenol	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
3-Nitroaniline	10.0		ug/L	U	YES															
4-BROMOPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Chloro-3-methylphenol	10.0		ug/L	U	YES															
4-Chloroaniline	10.0		ug/L	U	YES															
4-CHLOROPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Nitroaniline	10.0		ug/L	U	YES															
Acenaphthene	10.0		ug/L	U	YES															
Acenaphthylene	10.0		ug/L	U	YES															
Anthracene	10.0		ug/L	U	YES															
Benzo(a)anthracene	10.0		ug/L	U	YES															
Benzo(a)pyrene	10.0		ug/L	U	YES															
Benzo(b)fluoranthene	10.0		ug/L	U	YES															
Benzo(g,h,i)perylene	10.0		ug/L	U	YES															
Benzo(k)fluoranthene	10.0		ug/L	U	YES															
Benzyl alcohol	10.0		ug/L	U	YES															
Bis(2-chloroethoxy)methane	10.0		ug/L	U	YES															
Bis(2-chloroethyl) ether	10.0		ug/L	U	YES															
Bis(2-chloroisopropyl) ether	10.0		ug/L	U	YES															
Bis(2-ethylhexyl) phthalate	20.0		ug/L	U	YES															
Butylbenzyl phthalate	10.0		ug/L	U	YES															
Carbazole	10.0		ug/L	U	YES															
Chrysene	10.0		ug/L	U	YES															
DIBENZO(A,H)ANTHRACENE	10.0		ug/L	U	YES															
Dibenzofuran	20.0		ug/L	U	YES															
Diethyl phthalate	10.0		ug/L	U	YES															
Dimethyl phthalate	10.0		ug/L	U	YES															
Di-n-butyl phthalate	10.0		ug/L	U	YES															
Di-n-octyl phthalate	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
Fluoranthene	10.0		ug/L	U	YES															
Fluorene	10.0		ug/L	U	YES															
Hexachlorobenzene	20.0		ug/L	U	YES															
Hexachlorobutadiene	10.0		ug/L	U	YES															
Hexachloroethane	10.0		ug/L	U	YES															
Indeno(1,2,3-cd)pyrene	10.0		ug/L	U	YES															
Isophorone	10.0		ug/L	U	YES															
Naphthalene	10.0		ug/L	U	YES															
Nitrobenzene	10.0		ug/L	U	YES															
N-Nitrosodimethylamine	10.0		ug/L	U	YES															
N-NITROSO-DI-N-PROPYLAMINE	10.0		ug/L	U	YES															
N-Nitrosodiphenylamine	10.0		ug/L	U	YES															
Pentachlorophenol	20.0		ug/L	U	YES															
Phenanthrene	20.0		ug/L	U	YES															
Phenol	10.0		ug/L	U	YES															
Pyrene	10.0		ug/L	U	YES															
Analysis Method : 8330					**Dilution: 1**															
1,3,5-Trinitrobenzene	1.0		ug/L	U	YES															
1,3-Dinitrobenzene	1.0		ug/L	U	YES															
2,4,6-Trinitrotoluene	1.0		ug/L	U	YES															
2,4-Dinitrotoluene	1.0		ug/L	U	YES															
2,6-Dinitrotoluene	1.0		ug/L	U	YES															
2-Amino-4,6-dinitrotoluene	1.0		ug/L	U	YES															
2-Nitrotoluene	1.0		ug/L	U	YES															
3-Nitrotoluene	1.0		ug/L	U	YES															
4-Amino-2,6-dinitrotoluene	1.0		ug/L	U	YES															
4-Nitrotoluene	1.0		ug/L	U	YES															
HMX	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330					**Dilution: 1**															
Nitrobenzene	1.0		ug/L	U	YES															
RDX	1.0		ug/L	U	YES															
Tetryl	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90320

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	345000		ug/L	E	NO															
Magnesium	274000		ug/L	E	NO															
Potassium	16600		ug/L		YES															
Sodium	50000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.17		ug/L	J	YES	**U**			U											
Arsenic	6.5		ug/L		YES															
Barium	15.3		ug/L		YES															
Beryllium	0.051		ug/L	J	YES	**J**								J						
Cadmium	0.13		ug/L	J	YES	**J**								J						
Chromium	3.6		ug/L		YES															
Chromium III	3.6		ug/L		YES															
Cobalt	0.55		ug/L		YES															
Copper	5.7		ug/L		YES															
Lead	0.2		ug/L	U	YES															
Manganese	16.4		ug/L		YES															
Molybdenum	8.2		ug/L		YES															
Selenium	72.1		ug/L		YES															
Silver	0.059		ug/L	J	YES	**U**			U											
Vanadium	6.7		ug/L		YES															
Zinc	421		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90322

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9056					**Dilution: 100**															
Chloride	4050000		ug/L		YES															
Sulfate as SO4	2060000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90322

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6850					**Dilution: 1**															
Perchlorate	4.4		ug/L		YES	**J**		J												
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 25**															
Bromide	14000		ug/L		YES															
Chloride	4480000		ug/L	E	NO															
Fluoride	25000		ug/L	U	YES															
ortho-Phosphate	25000		ug/L	U	YES															
Sulfate as SO4	2380000		ug/L	E	NO															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M114MW003 **Lab Report Batch :** K0901365 **Lab ID :** CAS_K
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901365-001

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.5		mg/L	XU	Yes	**UJ**		UJ												

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9056					**Dilution: 25**															
Chloride	449000		ug/L		YES															
Sulfate as SO4	534000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 25**															
Sodium	645000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	454		ug/L	J	YES	**J**					J			J						
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	2000.0		ug/L	U	YES															
Analysis Method : 6850					**Dilution: 1**															
Perchlorate	2.0		ug/L		YES	**J**					J									
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 8081A					**Dilution: 1**															
4,4'-DDD	0.05		ug/L	U	YES															
4,4'-DDE	0.05		ug/L	U	YES															
4,4'-DDT	0.05		ug/L	U	YES															
Aldrin	0.05		ug/L	U	YES															
alpha-BHC	0.05		ug/L	U	YES															
alpha-Chlordane	0.05		ug/L	U	YES															
beta-BHC	0.05		ug/L	U	YES															
delta-BHC	0.05		ug/L	U	YES															
Dieldrin	0.05		ug/L	U	YES															
Endosulfan I	0.05		ug/L	U	YES															
Endosulfan II	0.05		ug/L	U	YES															
Endosulfan sulfate	0.05		ug/L	U	YES															
Endrin	0.05		ug/L	U	YES															
Endrin aldehyde	0.05		ug/L	U	YES															
Endrin ketone	0.05		ug/L	U	YES															
gamma-BHC	0.05		ug/L	U	YES															
gamma-Chlordane	0.05		ug/L	U	YES															
Heptachlor	0.05		ug/L	U	YES															
Heptachlor epoxide	0.05		ug/L	U	YES															
Methoxychlor	0.05		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8081A					**Dilution: 1**															
Toxaphene	1.0		ug/L	U	YES															
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	0.2		ug/L	B J	YES	**U**			U											
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	0.3		ug/L	J	YES	**U**														
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															
Analysis Method : 8270C					**Dilution: 1**															
1,2,4-Trichlorobenzene	10.0		ug/L	U	YES															
1,2-Dichlorobenzene	10.0		ug/L	U	YES															
1,2-Diphenylhydrazine	10.0		ug/L	U	YES															
1,3-Dichlorobenzene	10.0		ug/L	U	YES															
1,4-Dichlorobenzene	10.0		ug/L	U	YES															
2,4,5-Trichlorophenol	10.0		ug/L	U	YES															
2,4,6-Trichlorophenol	10.0		ug/L	U	YES															
2,4-Dichlorophenol	10.0		ug/L	U	YES															
2,4-Dimethylphenol	10.0		ug/L	U	YES															
2,4-Dinitrophenol	20.0		ug/L	U	YES															
2,4-Dinitrotoluene	20.0		ug/L	U	YES															
2,6-Dinitrotoluene	20.0		ug/L	U	YES															
2-Chloronaphthalene	10.0		ug/L	U	YES															
2-Chlorophenol	10.0		ug/L	U	YES															
2-METHYL-4,6-DINITROPHENOL	20.0		ug/L	U	YES															
2-Methylnaphthalene	10.0		ug/L	U	YES															
2-Methylphenol	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
2-Nitroaniline	20.0		ug/L	U	YES															
2-Nitrophenol	10.0		ug/L	U	YES															
3,3'-Dichlorobenzidine	10.0		ug/L	U	YES															
3/4-Methylphenol	10.0		ug/L	U	YES															
3-Nitroaniline	10.0		ug/L	U	YES															
4-BROMOPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Chloro-3-methylphenol	10.0		ug/L	U	YES															
4-Chloroaniline	10.0		ug/L	U	YES															
4-CHLOROPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Nitroaniline	10.0		ug/L	U	YES															
Acenaphthene	10.0		ug/L	U	YES															
Acenaphthylene	10.0		ug/L	U	YES															
Anthracene	10.0		ug/L	U	YES															
Benzo(a)anthracene	10.0		ug/L	U	YES															
Benzo(a)pyrene	10.0		ug/L	U	YES															
Benzo(b)fluoranthene	10.0		ug/L	U	YES															
Benzo(g,h,i)perylene	10.0		ug/L	U	YES															
Benzo(k)fluoranthene	10.0		ug/L	U	YES															
Benzyl alcohol	10.0		ug/L	U	YES															
Bis(2-chloroethoxy)methane	10.0		ug/L	U	YES															
Bis(2-chloroethyl) ether	10.0		ug/L	U	YES															
Bis(2-chloroisopropyl) ether	10.0		ug/L	U	YES															
Bis(2-ethylhexyl) phthalate	20.0		ug/L	U	YES															
Butylbenzyl phthalate	10.0		ug/L	U	YES															
Carbazole	10.0		ug/L	U	YES															
Chrysene	10.0		ug/L	U	YES															
DIBENZO(A,H)ANTHRACENE	10.0		ug/L	U	YES															
Dibenzofuran	20.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
Diethyl phthalate	10.0		ug/L	U	YES															
Dimethyl phthalate	10.0		ug/L	U	YES															
Di-n-butyl phthalate	10.0		ug/L	U	YES															
Di-n-octyl phthalate	10.0		ug/L	U	YES															
Fluoranthene	10.0		ug/L	U	YES															
Fluorene	10.0		ug/L	U	YES															
Hexachlorobenzene	20.0		ug/L	U	YES															
Hexachlorobutadiene	10.0		ug/L	U	YES															
Hexachloroethane	10.0		ug/L	U	YES															
Indeno(1,2,3-cd)pyrene	10.0		ug/L	U	YES															
Isophorone	10.0		ug/L	U	YES															
Naphthalene	10.0		ug/L	U	YES															
Nitrobenzene	10.0		ug/L	U	YES															
N-Nitrosodimethylamine	10.0		ug/L	U	YES															
N-NITROSO-DI-N-PROPYLAMINE	10.0		ug/L	U	YES															
N-Nitrosodiphenylamine	10.0		ug/L	U	YES															
Pentachlorophenol	20.0		ug/L	U	YES															
Phenanthrene	20.0		ug/L	U	YES															
Phenol	10.0		ug/L	U	YES															
Pyrene	10.0		ug/L	U	YES															
Analysis Method : 8330					**Dilution: 1**															
1,3,5-Trinitrobenzene	1.0		ug/L	U	YES															
1,3-Dinitrobenzene	1.0		ug/L	U	YES															
2,4,6-Trinitrotoluene	1.0		ug/L	U	YES															
2,4-Dinitrotoluene	1.0		ug/L	U	YES															
2,6-Dinitrotoluene	1.0		ug/L	U	YES															
2-Amino-4,6-dinitrotoluene	1.0		ug/L	U	YES															
2-Nitrotoluene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330					**Dilution: 1**															
3-Nitrotoluene	1.0		ug/L	U	YES															
4-Amino-2,6-dinitrotoluene	1.0		ug/L	U	YES															
4-Nitrotoluene	1.0		ug/L	U	YES															
HMX	1.0		ug/L	U	YES															
Nitrobenzene	1.0		ug/L	U	YES															
RDX	1.0		ug/L	U	YES															
Tetryl	1.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 2**															
Bromide	2250		ug/L		YES															
Chloride	546000		ug/L	E	NO															
Fluoride	2490		ug/L		YES															
ortho-Phosphate	2000		ug/L	U	YES															
Sulfate as SO4	700000		ug/L	E	NO															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90328

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	44000		ug/L		YES															
Magnesium	44900		ug/L		YES															
Potassium	7530		ug/L		YES															
Sodium	582000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.22		ug/L		YES	**U**			U											
Arsenic	1.6		ug/L		YES	**J**						J								
Barium	19.0		ug/L		YES															
Beryllium	0.11		ug/L	J	YES	**J**								J						
Cadmium	3.2		ug/L		YES															
Chromium	3.5		ug/L	B	YES	**J**						J								
Chromium III	3.5		ug/L	B	YES															
Cobalt	0.18		ug/L	J	YES	**J**								J						
Copper	2.3		ug/L		YES															
Lead	0.11		ug/L	J	YES	**J**								J						
Manganese	0.84		ug/L		YES															
Molybdenum	11.4		ug/L		YES															
Selenium	9.3		ug/L		YES	**J**						J								
Silver	0.046		ug/L	J	YES	**U**			U											
Vanadium	13.4		ug/L		YES															
Zinc	826		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.098		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW002 **Lab Report Batch :** K0901365 **Lab ID :** CAS_K
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901365-004

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.7		mg/L	X	Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: DL2/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 20**															
Sodium	401000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	2000.0		ug/L	U	YES															
Analysis Method : 8081A					**Dilution: 1**															
4,4'-DDD	0.05		ug/L	U	YES															
4,4'-DDE	0.05		ug/L	U	YES															
4,4'-DDT	0.05		ug/L	U	YES															
Aldrin	0.05		ug/L	U	YES															
alpha-BHC	0.05		ug/L	U	YES															
alpha-Chlordane	0.05		ug/L	U	YES															
beta-BHC	0.05		ug/L	U	YES															
delta-BHC	0.05		ug/L	U	YES															
Dieldrin	0.05		ug/L	U	YES															
Endosulfan I	0.05		ug/L	U	YES															
Endosulfan II	0.05		ug/L	U	YES															
Endosulfan sulfate	0.05		ug/L	U	YES															
Endrin	0.05		ug/L	U	YES															
Endrin aldehyde	0.05		ug/L	U	YES															
Endrin ketone	0.05		ug/L	U	YES															
gamma-BHC	0.05		ug/L	U	YES															
gamma-Chlordane	0.05		ug/L	U	YES															
Heptachlor	0.05		ug/L	U	YES															
Heptachlor epoxide	0.05		ug/L	U	YES															
Methoxychlor	0.05		ug/L	U	YES															
Toxaphene	1.0		ug/L	U	YES															
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	1.0		ug/L	U	YES															
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															
Analysis Method : 8270C					**Dilution: 1**															
1,2,4-Trichlorobenzene	10.0		ug/L	U	YES															
1,2-Dichlorobenzene	10.0		ug/L	U	YES															
1,2-Diphenylhydrazine	10.0		ug/L	U	YES															
1,3-Dichlorobenzene	10.0		ug/L	U	YES															
1,4-Dichlorobenzene	10.0		ug/L	U	YES															
2,4,5-Trichlorophenol	10.0		ug/L	U	YES															
2,4,6-Trichlorophenol	10.0		ug/L	U	YES															
2,4-Dichlorophenol	10.0		ug/L	U	YES															
2,4-Dimethylphenol	10.0		ug/L	U	YES															
2,4-Dinitrophenol	20.0		ug/L	U	YES															
2,4-Dinitrotoluene	20.0		ug/L	U	YES															
2,6-Dinitrotoluene	20.0		ug/L	U	YES															
2-Chloronaphthalene	10.0		ug/L	U	YES															
2-Chlorophenol	10.0		ug/L	U	YES															
2-METHYL-4,6-DINITROPHENOL	20.0		ug/L	U	YES															
2-Methylnaphthalene	10.0		ug/L	U	YES															
2-Methylphenol	10.0		ug/L	U	YES															
2-Nitroaniline	20.0		ug/L	U	YES															
2-Nitrophenol	10.0		ug/L	U	YES															
3,3'-Dichlorobenzidine	10.0		ug/L	U	YES															
3/4-Methylphenol	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
3-Nitroaniline	10.0		ug/L	U	YES															
4-BROMOPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Chloro-3-methylphenol	10.0		ug/L	U	YES															
4-Chloroaniline	10.0		ug/L	U	YES															
4-CHLOROPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Nitroaniline	10.0		ug/L	U	YES															
Acenaphthene	10.0		ug/L	U	YES															
Acenaphthylene	10.0		ug/L	U	YES															
Anthracene	10.0		ug/L	U	YES															
Benzo(a)anthracene	10.0		ug/L	U	YES															
Benzo(a)pyrene	10.0		ug/L	U	YES															
Benzo(b)fluoranthene	10.0		ug/L	U	YES															
Benzo(g,h,i)perylene	10.0		ug/L	U	YES															
Benzo(k)fluoranthene	10.0		ug/L	U	YES															
Benzyl alcohol	10.0		ug/L	U	YES															
Bis(2-chloroethoxy)methane	10.0		ug/L	U	YES															
Bis(2-chloroethyl) ether	10.0		ug/L	U	YES															
Bis(2-chloroisopropyl) ether	10.0		ug/L	U	YES															
Bis(2-ethylhexyl) phthalate	20.0		ug/L	U	YES															
Butylbenzyl phthalate	10.0		ug/L	U	YES															
Carbazole	10.0		ug/L	U	YES															
Chrysene	10.0		ug/L	U	YES															
DIBENZO(A,H)ANTHRACENE	10.0		ug/L	U	YES															
Dibenzofuran	20.0		ug/L	U	YES															
Diethyl phthalate	10.0		ug/L	U	YES															
Dimethyl phthalate	10.0		ug/L	U	YES															
Di-n-butyl phthalate	10.0		ug/L	U	YES															
Di-n-octyl phthalate	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
Fluoranthene	10.0		ug/L	U	YES															
Fluorene	10.0		ug/L	U	YES															
Hexachlorobenzene	20.0		ug/L	U	YES															
Hexachlorobutadiene	10.0		ug/L	U	YES															
Hexachloroethane	10.0		ug/L	U	YES															
Indeno(1,2,3-cd)pyrene	10.0		ug/L	U	YES															
Isophorone	10.0		ug/L	U	YES															
Naphthalene	10.0		ug/L	U	YES															
Nitrobenzene	10.0		ug/L	U	YES															
N-Nitrosodimethylamine	10.0		ug/L	U	YES															
N-NITROSO-DI-N-PROPYLAMINE	10.0		ug/L	U	YES															
N-Nitrosodiphenylamine	10.0		ug/L	U	YES															
Pentachlorophenol	20.0		ug/L	U	YES															
Phenanthrene	20.0		ug/L	U	YES															
Phenol	10.0		ug/L	U	YES															
Pyrene	10.0		ug/L	U	YES															
Analysis Method : 8330					**Dilution: 1**															
1,3,5-Trinitrobenzene	1.0		ug/L	U	YES															
1,3-Dinitrobenzene	1.0		ug/L	U	YES															
2,4,6-Trinitrotoluene	1.0		ug/L	U	YES															
2,4-Dinitrotoluene	1.0		ug/L	U	YES															
2,6-Dinitrotoluene	1.0		ug/L	U	YES															
2-Amino-4,6-dinitrotoluene	1.0		ug/L	U	YES															
2-Nitrotoluene	1.0		ug/L	U	YES															
3-Nitrotoluene	1.0		ug/L	U	YES															
4-Amino-2,6-dinitrotoluene	1.0		ug/L	U	YES															
4-Nitrotoluene	1.0		ug/L	U	YES															
HMX	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330					**Dilution: 1**															
Nitrobenzene	1.0		ug/L	U	YES															
RDX	1.0		ug/L	U	YES															
Tetryl	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90321

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	44400		ug/L		YES															
Magnesium	42800		ug/L		YES															
Potassium	6410		ug/L		YES															
Sodium	358000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.025		ug/L	J	YES	**U**			U											
Arsenic	2.6		ug/L		YES															
Barium	23.2		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	1.4		ug/L		YES	**J**														
Chromium	2.2		ug/L		YES															
Chromium III	2.2		ug/L		YES															
Cobalt	0.12		ug/L	J	YES	**J**								J						
Copper	1.9		ug/L		YES															
Lead	0.13		ug/L	J	YES	**J**								J						
Manganese	1.2		ug/L		YES															
Molybdenum	6.0		ug/L		YES	**J**														
Selenium	13.9		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	19.1		ug/L		YES															
Zinc	257		ug/L		YES	**J**														
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.16		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90323

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9056					**Dilution: 10**															
Chloride	267000		ug/L		YES															
Sulfate as SO4	351000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90323

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6850					**Dilution: 1**															
Perchlorate	4.2		ug/L		YES	**J**		J												
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
Bromide	1630		ug/L		YES															
Chloride	313000		ug/L	E	NO															
Fluoride	2220		ug/L		YES															
ortho-Phosphate	1000		ug/L	U	YES															
Sulfate as SO4	449000		ug/L	E	NO															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW004 **Lab Report Batch :** K0901365 **Lab ID :** CAS_K
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901365-002

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.7		mg/L	X	Yes	**J**		J												

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: DL2/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 20**															
Sodium	380000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	2000.0		ug/L	U	YES															
Analysis Method : 8081A					**Dilution: 1**															
4,4'-DDD	0.05		ug/L	U	YES															
4,4'-DDE	0.05		ug/L	U	YES															
4,4'-DDT	0.05		ug/L	U	YES															
Aldrin	0.05		ug/L	U	YES															
alpha-BHC	0.05		ug/L	U	YES															
alpha-Chlordane	0.05		ug/L	U	YES															
beta-BHC	0.05		ug/L	U	YES															
delta-BHC	0.05		ug/L	U	YES															
Dieldrin	0.05		ug/L	U	YES															
Endosulfan I	0.05		ug/L	U	YES															
Endosulfan II	0.05		ug/L	U	YES															
Endosulfan sulfate	0.05		ug/L	U	YES															
Endrin	0.05		ug/L	U	YES															
Endrin aldehyde	0.05		ug/L	U	YES															
Endrin ketone	0.05		ug/L	U	YES															
gamma-BHC	0.006		ug/L	J	YES	**J**								J						
gamma-Chlordane	0.05		ug/L	U	YES															
Heptachlor	0.05		ug/L	U	YES															
Heptachlor epoxide	0.05		ug/L	U	YES															
Methoxychlor	0.05		ug/L	U	YES															
Toxaphene	1.0		ug/L	U	YES															
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	1.0		ug/L	U	YES															
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															
Analysis Method : 8270C					**Dilution: 1**															
1,2,4-Trichlorobenzene	10.0		ug/L	U	YES															
1,2-Dichlorobenzene	10.0		ug/L	U	YES															
1,2-Diphenylhydrazine	10.0		ug/L	U	YES															
1,3-Dichlorobenzene	10.0		ug/L	U	YES															
1,4-Dichlorobenzene	10.0		ug/L	U	YES															
2,4,5-Trichlorophenol	10.0		ug/L	U	YES															
2,4,6-Trichlorophenol	10.0		ug/L	U	YES															
2,4-Dichlorophenol	10.0		ug/L	U	YES															
2,4-Dimethylphenol	10.0		ug/L	U	YES															
2,4-Dinitrophenol	20.0		ug/L	U	YES															
2,4-Dinitrotoluene	20.0		ug/L	U	YES															
2,6-Dinitrotoluene	20.0		ug/L	U	YES															
2-Chloronaphthalene	10.0		ug/L	U	YES															
2-Chlorophenol	10.0		ug/L	U	YES															
2-METHYL-4,6-DINITROPHENOL	20.0		ug/L	U	YES															
2-Methylnaphthalene	10.0		ug/L	U	YES															
2-Methylphenol	10.0		ug/L	U	YES															
2-Nitroaniline	20.0		ug/L	U	YES															
2-Nitrophenol	10.0		ug/L	U	YES															
3,3'-Dichlorobenzidine	10.0		ug/L	U	YES															
3/4-Methylphenol	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
3-Nitroaniline	10.0		ug/L	U	YES															
4-BROMOPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Chloro-3-methylphenol	10.0		ug/L	U	YES															
4-Chloroaniline	10.0		ug/L	U	YES															
4-CHLOROPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Nitroaniline	10.0		ug/L	U	YES															
Acenaphthene	10.0		ug/L	U	YES															
Acenaphthylene	10.0		ug/L	U	YES															
Anthracene	10.0		ug/L	U	YES															
Benzo(a)anthracene	10.0		ug/L	U	YES															
Benzo(a)pyrene	10.0		ug/L	U	YES															
Benzo(b)fluoranthene	10.0		ug/L	U	YES															
Benzo(g,h,i)perylene	10.0		ug/L	U	YES															
Benzo(k)fluoranthene	10.0		ug/L	U	YES															
Benzyl alcohol	10.0		ug/L	U	YES															
Bis(2-chloroethoxy)methane	10.0		ug/L	U	YES															
Bis(2-chloroethyl) ether	10.0		ug/L	U	YES															
Bis(2-chloroisopropyl) ether	10.0		ug/L	U	YES															
Bis(2-ethylhexyl) phthalate	20.0		ug/L	U	YES															
Butylbenzyl phthalate	10.0		ug/L	U	YES															
Carbazole	10.0		ug/L	U	YES															
Chrysene	10.0		ug/L	U	YES															
DIBENZO(A,H)ANTHRACENE	10.0		ug/L	U	YES															
Dibenzofuran	20.0		ug/L	U	YES															
Diethyl phthalate	10.0		ug/L	U	YES															
Dimethyl phthalate	10.0		ug/L	U	YES															
Di-n-butyl phthalate	10.0		ug/L	U	YES															
Di-n-octyl phthalate	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
Fluoranthene	10.0		ug/L	U	YES															
Fluorene	10.0		ug/L	U	YES															
Hexachlorobenzene	20.0		ug/L	U	YES															
Hexachlorobutadiene	10.0		ug/L	U	YES															
Hexachloroethane	10.0		ug/L	U	YES															
Indeno(1,2,3-cd)pyrene	10.0		ug/L	U	YES															
Isophorone	10.0		ug/L	U	YES															
Naphthalene	10.0		ug/L	U	YES															
Nitrobenzene	10.0		ug/L	U	YES															
N-Nitrosodimethylamine	10.0		ug/L	U	YES															
N-NITROSO-DI-N-PROPYLAMINE	10.0		ug/L	U	YES															
N-Nitrosodiphenylamine	10.0		ug/L	U	YES															
Pentachlorophenol	20.0		ug/L	U	YES															
Phenanthrene	20.0		ug/L	U	YES															
Phenol	10.0		ug/L	U	YES															
Pyrene	10.0		ug/L	U	YES															
Analysis Method : 8330					**Dilution: 1**															
1,3,5-Trinitrobenzene	1.0		ug/L	U	YES															
1,3-Dinitrobenzene	1.0		ug/L	U	YES															
2,4,6-Trinitrotoluene	1.0		ug/L	U	YES															
2,4-Dinitrotoluene	1.0		ug/L	U	YES															
2,6-Dinitrotoluene	1.0		ug/L	U	YES															
2-Amino-4,6-dinitrotoluene	1.0		ug/L	U	YES															
2-Nitrotoluene	1.0		ug/L	U	YES															
3-Nitrotoluene	1.0		ug/L	U	YES															
4-Amino-2,6-dinitrotoluene	1.0		ug/L	U	YES															
4-Nitrotoluene	1.0		ug/L	U	YES															
HMX	1.0		ug/L	U	YES															

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330					**Dilution: 1**															
Nitrobenzene	1.0		ug/L	U	YES															
RDX	1.0		ug/L	U	YES															
Tetryl	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90325

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	44800		ug/L		YES															
Magnesium	43400		ug/L		YES															
Potassium	6480		ug/L		YES															
Sodium	359000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.055		ug/L	J	YES	**U**			U											
Arsenic	2.2		ug/L		YES															
Barium	22.5		ug/L		YES															
Beryllium	0.043		ug/L	J	YES	**J**								J						
Cadmium	0.25		ug/L		YES	**J**														
Chromium	1.7		ug/L	B	YES															
Chromium III	1.7		ug/L	B	YES															
Cobalt	0.10		ug/L	J	YES	**J**								J						
Copper	1.6		ug/L		YES															
Lead	0.2		ug/L	U	YES															
Manganese	0.98		ug/L		YES															
Molybdenum	10.8		ug/L		YES	**J**														
Selenium	10.6		ug/L		YES															
Silver	0.12		ug/L	J	YES	**U**			U											
Vanadium	19.5		ug/L		YES															
Zinc	410		ug/L		YES	**J**														
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.14		ug/L	J	YES	**J**								J						

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90326

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9056					**Dilution: 10**															
Chloride	267000		ug/L		YES															
Sulfate as SO4	350000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90326

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6850					**Dilution: 1**															
Perchlorate	4.2		ug/L		YES	**J**		J												
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
Bromide	1630		ug/L		YES															
Chloride	313000		ug/L	E	NO															
Fluoride	2210		ug/L		YES															
ortho-Phosphate	1000		ug/L	U	YES															
Sulfate as SO4	448000		ug/L	E	NO															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW054 **Lab Report Batch :** K0901365 **Lab ID :** CAS_K
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901365-003

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.6		mg/L	X	Yes	**J**		J												

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB1-270109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90319

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB1-270109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90319

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	0.2		ug/L	B J	YES	**UJ**			U					J						
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB1-270109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90319

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB1-280109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90327

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB1-280109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90327

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	0.3		ug/L	J	YES	**J**								J						
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	1.0		ug/L	U	YES															
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB1-280109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/28/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90327

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	0.2		ug/L	J	YES	**J**								J						
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB2-270109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90324

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	3.6		ug/L	J	YES	**J**								J						
Benzene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB2-270109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90324

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	0.2		ug/L	J	YES	**J**								J						
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	1.0		ug/L	U	YES															
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB2-270109 **Lab Report Batch :** 58006 **Lab ID :** APPL
Sample Date : 01/27/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90324

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9056					**Dilution: 25**															
Chloride	571000		ug/L		YES															
Sulfate as SO4	663000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 25**															
Sodium	732000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	2000.0		ug/L	U	YES															
Analysis Method : 6850					**Dilution: 1**															
Perchlorate	0.3		ug/L	J	YES	**J**								J						
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 8081A					**Dilution: 1**															
4,4'-DDD	0.05		ug/L	U	YES															
4,4'-DDE	0.05		ug/L	U	YES															
4,4'-DDT	0.05		ug/L	U	YES															
Aldrin	0.05		ug/L	U	YES															
alpha-BHC	0.05		ug/L	U	YES															
alpha-Chlordane	0.05		ug/L	U	YES															
beta-BHC	0.05		ug/L	U	YES															
delta-BHC	0.05		ug/L	U	YES															
Dieldrin	0.05		ug/L	U	YES															
Endosulfan I	0.05		ug/L	U	YES															
Endosulfan II	0.05		ug/L	U	YES															
Endosulfan sulfate	0.05		ug/L	U	YES															
Endrin	0.05		ug/L	U	YES															
Endrin aldehyde	0.05		ug/L	U	YES															
Endrin ketone	0.05		ug/L	U	YES															
gamma-BHC	0.05		ug/L	U	YES															
gamma-Chlordane	0.05		ug/L	U	YES															
Heptachlor	0.05		ug/L	U	YES															
Heptachlor epoxide	0.05		ug/L	U	YES															
Methoxychlor	0.05		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8081A					**Dilution: 1**															
Toxaphene	1.0		ug/L	U	YES															
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	0.3		ug/L	B J	YES	**U**			U							U				
1,2,4-Trimethylbenzene	0.2		ug/L	J	YES	**U**			U							U				
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	0.2		ug/L	B J	YES	**U**			U											
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	0.2		ug/L	B J	YES	**U**			U											
4-Methyl-2-pentanone	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	0.5		ug/L	B J	YES	**U**			U							U				
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	0.3		ug/L	B J	YES	**U**			U							U				
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	0.2		ug/L	B J	YES	**U**			U							U				

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
sec-Butylbenzene	0.2		ug/L	B J	YES	**U**			U							U				
Styrene	1.0		ug/L	U	YES															
tert-Butylbenzene	0.2		ug/L	B J	YES	**U**			U							U				
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															
Analysis Method : 8270C					**Dilution: 1**															
1,2,4-Trichlorobenzene	10.0		ug/L	U	YES															
1,2-Dichlorobenzene	10.0		ug/L	U	YES															
1,2-Diphenylhydrazine	10.0		ug/L	U	YES															
1,3-Dichlorobenzene	10.0		ug/L	U	YES															
1,4-Dichlorobenzene	10.0		ug/L	U	YES															
2,4,5-Trichlorophenol	10.0		ug/L	U	YES															
2,4,6-Trichlorophenol	10.0		ug/L	U	YES															
2,4-Dichlorophenol	10.0		ug/L	U	YES															
2,4-Dimethylphenol	10.0		ug/L	U	YES															
2,4-Dinitrophenol	20.0		ug/L	U	YES															
2,4-Dinitrotoluene	20.0		ug/L	U	YES															
2,6-Dinitrotoluene	20.0		ug/L	U	YES															
2-Chloronaphthalene	10.0		ug/L	U	YES															
2-Chlorophenol	10.0		ug/L	U	YES															
2-METHYL-4,6-DINITROPHENOL	20.0		ug/L	U	YES															
2-Methylnaphthalene	10.0		ug/L	U	YES															
2-Methylphenol	10.0		ug/L	U	YES															

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
2-Nitroaniline	20.0		ug/L	U	YES															
2-Nitrophenol	10.0		ug/L	U	YES															
3,3'-Dichlorobenzidine	10.0		ug/L	U	YES															
3/4-Methylphenol	10.0		ug/L	U	YES															
3-Nitroaniline	10.0		ug/L	U	YES															
4-BROMOPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Chloro-3-methylphenol	10.0		ug/L	U	YES															
4-Chloroaniline	10.0		ug/L	U	YES															
4-CHLOROPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Nitroaniline	10.0		ug/L	U	YES															
Acenaphthene	10.0		ug/L	U	YES															
Acenaphthylene	10.0		ug/L	U	YES															
Anthracene	10.0		ug/L	U	YES															
Benzo(a)anthracene	10.0		ug/L	U	YES															
Benzo(a)pyrene	10.0		ug/L	U	YES															
Benzo(b)fluoranthene	10.0		ug/L	U	YES															
Benzo(g,h,i)perylene	10.0		ug/L	U	YES															
Benzo(k)fluoranthene	10.0		ug/L	U	YES															
Benzyl alcohol	10.0		ug/L	U	YES															
Bis(2-chloroethoxy)methane	10.0		ug/L	U	YES															
Bis(2-chloroethyl) ether	10.0		ug/L	U	YES															
Bis(2-chloroisopropyl) ether	10.0		ug/L	U	YES															
Bis(2-ethylhexyl) phthalate	20.0		ug/L	U	YES															
Butylbenzyl phthalate	10.0		ug/L	U	YES															
Carbazole	10.0		ug/L	U	YES															
Chrysene	10.0		ug/L	U	YES															
DIBENZO(A,H)ANTHRACENE	10.0		ug/L	U	YES															
Dibenzofuran	20.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
Diethyl phthalate	10.0		ug/L	U	YES															
Dimethyl phthalate	10.0		ug/L	U	YES															
Di-n-butyl phthalate	10.0		ug/L	U	YES															
Di-n-octyl phthalate	10.0		ug/L	U	YES															
Fluoranthene	10.0		ug/L	U	YES															
Fluorene	10.0		ug/L	U	YES															
Hexachlorobenzene	20.0		ug/L	U	YES															
Hexachlorobutadiene	10.0		ug/L	U	YES															
Hexachloroethane	10.0		ug/L	U	YES															
Indeno(1,2,3-cd)pyrene	10.0		ug/L	U	YES															
Isophorone	10.0		ug/L	U	YES															
Naphthalene	10.0		ug/L	U	YES															
Nitrobenzene	10.0		ug/L	U	YES															
N-Nitrosodimethylamine	10.0		ug/L	U	YES															
N-NITROSO-DI-N-PROPYLAMINE	10.0		ug/L	U	YES															
N-Nitrosodiphenylamine	10.0		ug/L	U	YES															
Pentachlorophenol	20.0		ug/L	U	YES															
Phenanthrene	20.0		ug/L	U	YES															
Phenol	10.0		ug/L	U	YES															
Pyrene	10.0		ug/L	U	YES															
Analysis Method : 8330					**Dilution: 1**															
1,3,5-Trinitrobenzene	1.0		ug/L	U	YES															
1,3-Dinitrobenzene	1.0		ug/L	U	YES															
2,4,6-Trinitrotoluene	1.0		ug/L	U	YES															
2,4-Dinitrotoluene	1.0		ug/L	U	YES															
2,6-Dinitrotoluene	1.0		ug/L	U	YES															
2-Amino-4,6-dinitrotoluene	1.0		ug/L	U	YES															
2-Nitrotoluene	1.0		ug/L	U	YES															

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Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330					**Dilution: 1**															
3-Nitrotoluene	1.0		ug/L	U	YES															
4-Amino-2,6-dinitrotoluene	1.0		ug/L	U	YES															
4-Nitrotoluene	1.0		ug/L	U	YES															
HMX	1.0		ug/L	U	YES															
Nitrobenzene	1.0		ug/L	U	YES															
RDX	1.0		ug/L	U	YES															
Tetryl	1.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 2**															
Bromide	2670		ug/L		YES															
Chloride	679000		ug/L	E	NO															
Fluoride	2240		ug/L		YES															
ortho-Phosphate	2000		ug/L	U	YES															
Sulfate as SO4	861000		ug/L	E	NO															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90386

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	53500		ug/L		YES	**J**					J									
Magnesium	53100		ug/L		YES	**J**					J									
Potassium	7230		ug/L		YES															
Sodium	668000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.16		ug/L	J	YES	**U**			U											
Arsenic	0.96		ug/L		YES															
Barium	16.9		ug/L		YES															
Beryllium	0.14		ug/L	J	YES	**J**								J						
Cadmium	0.92		ug/L		YES															
Chromium	2.2		ug/L	B	YES															
Chromium III	2.2		ug/L	B	YES															
Cobalt	0.48		ug/L	J	YES	**J**								J						
Copper	2.7		ug/L		YES															
Lead	0.32		ug/L		YES															
Manganese	5.1		ug/L		YES															
Molybdenum	5.7		ug/L		YES															
Selenium	6.3		ug/L		YES															
Silver	0.060		ug/L	J	YES	**U**			U											
Vanadium	8.7		ug/L		YES															
Zinc	415		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW001 **Lab Report Batch :** K0901366 **Lab ID :** CAS_K
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901366-001

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	500		ug/L	U	Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9056					**Dilution: 25**															
Chloride	480000		ug/L		YES															
Sulfate as SO4	552000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 25**															
Sodium	655000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	2000.0		ug/L	U	YES															
Analysis Method : 6850					**Dilution: 1**															
Perchlorate	0.4		ug/L	J	YES	**J**								J						
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 8081A					**Dilution: 1**															
4,4'-DDD	0.05		ug/L	U	YES															
4,4'-DDE	0.05		ug/L	U	YES															
4,4'-DDT	0.05		ug/L	U	YES															
Aldrin	0.05		ug/L	U	YES															
alpha-BHC	0.05		ug/L	U	YES															
alpha-Chlordane	0.05		ug/L	U	YES															
beta-BHC	0.05		ug/L	U	YES															
delta-BHC	0.05		ug/L	U	YES															
Dieldrin	0.05		ug/L	U	YES															
Endosulfan I	0.05		ug/L	U	YES															
Endosulfan II	0.05		ug/L	U	YES															
Endosulfan sulfate	0.05		ug/L	U	YES															
Endrin	0.05		ug/L	U	YES															
Endrin aldehyde	0.05		ug/L	U	YES															
Endrin ketone	0.05		ug/L	U	YES															
gamma-BHC	0.05		ug/L	U	YES															
gamma-Chlordane	0.05		ug/L	U	YES															
Heptachlor	0.05		ug/L	U	YES															
Heptachlor epoxide	0.05		ug/L	U	YES															
Methoxychlor	0.05		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8081A					**Dilution: 1**															
Toxaphene	1.0		ug/L	U	YES															
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	0.3		ug/L	B J	YES	**U**			U							U				
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															
Analysis Method : 8270C					**Dilution: 1**															
1,2,4-Trichlorobenzene	10.0		ug/L	U	YES															
1,2-Dichlorobenzene	10.0		ug/L	U	YES															
1,2-Diphenylhydrazine	10.0		ug/L	U	YES															
1,3-Dichlorobenzene	10.0		ug/L	U	YES															
1,4-Dichlorobenzene	10.0		ug/L	U	YES															
2,4,5-Trichlorophenol	10.0		ug/L	U	YES															
2,4,6-Trichlorophenol	10.0		ug/L	U	YES															
2,4-Dichlorophenol	10.0		ug/L	U	YES															
2,4-Dimethylphenol	10.0		ug/L	U	YES															
2,4-Dinitrophenol	20.0		ug/L	U	YES															
2,4-Dinitrotoluene	20.0		ug/L	U	YES															
2,6-Dinitrotoluene	20.0		ug/L	U	YES															
2-Chloronaphthalene	10.0		ug/L	U	YES															
2-Chlorophenol	10.0		ug/L	U	YES															
2-METHYL-4,6-DINITROPHENOL	20.0		ug/L	U	YES															
2-Methylnaphthalene	10.0		ug/L	U	YES															
2-Methylphenol	10.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
2-Nitroaniline	20.0		ug/L	U	YES															
2-Nitrophenol	10.0		ug/L	U	YES															
3,3'-Dichlorobenzidine	10.0		ug/L	U	YES															
3/4-Methylphenol	10.0		ug/L	U	YES															
3-Nitroaniline	10.0		ug/L	U	YES															
4-BROMOPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Chloro-3-methylphenol	10.0		ug/L	U	YES															
4-Chloroaniline	10.0		ug/L	U	YES															
4-CHLOROPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Nitroaniline	10.0		ug/L	U	YES															
Acenaphthene	10.0		ug/L	U	YES															
Acenaphthylene	10.0		ug/L	U	YES															
Anthracene	10.0		ug/L	U	YES															
Benzo(a)anthracene	10.0		ug/L	U	YES															
Benzo(a)pyrene	10.0		ug/L	U	YES															
Benzo(b)fluoranthene	10.0		ug/L	U	YES															
Benzo(g,h,i)perylene	10.0		ug/L	U	YES															
Benzo(k)fluoranthene	10.0		ug/L	U	YES															
Benzyl alcohol	10.0		ug/L	U	YES															
Bis(2-chloroethoxy)methane	10.0		ug/L	U	YES															
Bis(2-chloroethyl) ether	10.0		ug/L	U	YES															
Bis(2-chloroisopropyl) ether	10.0		ug/L	U	YES															
Bis(2-ethylhexyl) phthalate	20.0		ug/L	U	YES															
Butylbenzyl phthalate	10.0		ug/L	U	YES															
Carbazole	10.0		ug/L	U	YES															
Chrysene	10.0		ug/L	U	YES															
DIBENZO(A,H)ANTHRACENE	10.0		ug/L	U	YES															
Dibenzofuran	20.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
Diethyl phthalate	10.0		ug/L	U	YES															
Dimethyl phthalate	10.0		ug/L	U	YES															
Di-n-butyl phthalate	10.0		ug/L	U	YES															
Di-n-octyl phthalate	10.0		ug/L	U	YES															
Fluoranthene	10.0		ug/L	U	YES															
Fluorene	10.0		ug/L	U	YES															
Hexachlorobenzene	20.0		ug/L	U	YES															
Hexachlorobutadiene	10.0		ug/L	U	YES															
Hexachloroethane	10.0		ug/L	U	YES															
Indeno(1,2,3-cd)pyrene	10.0		ug/L	U	YES															
Isophorone	10.0		ug/L	U	YES															
Naphthalene	10.0		ug/L	U	YES															
Nitrobenzene	10.0		ug/L	U	YES															
N-Nitrosodimethylamine	10.0		ug/L	U	YES															
N-NITROSO-DI-N-PROPYLAMINE	10.0		ug/L	U	YES															
N-Nitrosodiphenylamine	10.0		ug/L	U	YES															
Pentachlorophenol	20.0		ug/L	U	YES															
Phenanthrene	20.0		ug/L	U	YES															
Phenol	10.0		ug/L	U	YES															
Pyrene	10.0		ug/L	U	YES															
Analysis Method : 8330					**Dilution: 1**															
1,3,5-Trinitrobenzene	1.0		ug/L	U	YES															
1,3-Dinitrobenzene	1.0		ug/L	U	YES															
2,4,6-Trinitrotoluene	1.0		ug/L	U	YES															
2,4-Dinitrotoluene	1.0		ug/L	U	YES															
2,6-Dinitrotoluene	1.0		ug/L	U	YES															
2-Amino-4,6-dinitrotoluene	1.0		ug/L	U	YES															
2-Nitrotoluene	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330					**Dilution: 1**															
3-Nitrotoluene	1.0		ug/L	U	YES															
4-Amino-2,6-dinitrotoluene	1.0		ug/L	U	YES															
4-Nitrotoluene	1.0		ug/L	U	YES															
HMX	1.0		ug/L	U	YES															
Nitrobenzene	1.0		ug/L	U	YES															
RDX	1.0		ug/L	U	YES															
Tetryl	1.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 2**															
Bromide	2290		ug/L		YES															
Chloride	585000		ug/L	E	NO															
Fluoride	2180		ug/L		YES															
ortho-Phosphate	2000		ug/L	U	YES															
Sulfate as SO4	728000		ug/L	E	NO															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90387

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	61200		ug/L		YES															
Magnesium	63300		ug/L		YES															
Potassium	7790		ug/L		YES															
Sodium	526000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.023		ug/L	J	YES	**U**			U											
Arsenic	2.5		ug/L		YES															
Barium	16.3		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	0.16		ug/L	J	YES	**J**								J						
Chromium	1.9		ug/L	B	YES															
Chromium III	1.9		ug/L	B	YES															
Cobalt	0.077		ug/L	J	YES	**J**								J						
Copper	2.2		ug/L		YES															
Lead	0.15		ug/L	J	YES	**J**								J						
Manganese	0.67		ug/L		YES															
Molybdenum	4.0		ug/L		YES															
Selenium	13.0		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	11.5		ug/L		YES															
Zinc	447		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA01MW003 **Lab Report Batch :** K0901366 **Lab ID :** CAS_K
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901366-002

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	700		ug/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-14 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90388

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 25**															
Sodium	806000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-14 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90388

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 4**															
Total Dissolved Solids	2600000		ug/L		YES															
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	212000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	2630		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 2**															
ortho-Phosphate	2000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-14 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90388

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	69900		ug/L		YES															
Magnesium	68300		ug/L		YES															
Potassium	11500		ug/L		YES															
Sodium	687000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.20		ug/L		YES	**U**			U											
Arsenic	5.2		ug/L		YES															
Barium	12.6		ug/L		YES															
Beryllium	0.041		ug/L	J	YES	**J**								J						
Cadmium	0.13		ug/L	J	YES	**J**								J						
Chromium	2.0		ug/L	B	YES															
Chromium III	2.0		ug/L	B	YES															
Cobalt	0.13		ug/L	J	YES	**J**								J						
Copper	3.1		ug/L		YES															
Lead	0.2		ug/L	U	YES															
Manganese	0.73		ug/L		YES															
Molybdenum	29.8		ug/L		YES															
Selenium	45.7		ug/L		YES															
Silver	0.052		ug/L	J	YES	**U**			U											
Vanadium	4.8		ug/L		YES															
Zinc	266		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-14 **Lab Report Batch :** K0901366 **Lab ID :** CAS_K
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901366-003

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	600		ug/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TBI-290109 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90385

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	0.5		ug/L	B J	YES	**UJ**			U					J						
1,2,4-Trimethylbenzene	0.2		ug/L	J	YES	**UJ**			U					J						
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TBI-290109 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90385

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	0.4		ug/L	B J	YES	**UJ**			U					J						
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	0.2		ug/L	J	YES	**UJ**			U					J						
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	0.4		ug/L	B J	YES	**UJ**			U					J						
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	0.2		ug/L	B J	YES	**UJ**			U					J						
sec-Butylbenzene	0.2		ug/L	B J	YES	**UJ**			U					J						
Styrene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TBI-290109 **Lab Report Batch :** 58016 **Lab ID :** APPL
Sample Date : 01/29/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90385

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
tert-Butylbenzene	0.2		ug/L	B J	YES	**UJ**			U					J						
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9056					**Dilution: 50**															
Chloride	665000		ug/L		YES															
Sulfate as SO4	1670000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 20**															
Calcium	194000		ug/L		YES															
Magnesium	156000		ug/L		YES															
Potassium	36200		ug/L		YES															
Sodium	781000		ug/L		YES															
Analysis Method : 6020A					**Dilution: 5**															
Zinc	2390		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	2000.0		ug/L	U	YES															
Analysis Method : 6850					**Dilution: 10**															
Perchlorate	15		ug/L		YES															
Analysis Method : 8081A					**Dilution: 1**															
4,4'-DDD	0.05		ug/L	U	YES															
4,4'-DDE	0.05		ug/L	U	YES															
4,4'-DDT	0.05		ug/L	U	YES															
Aldrin	0.05		ug/L	U	YES															
alpha-BHC	0.05		ug/L	U	YES															
alpha-Chlordane	0.05		ug/L	U	YES															
beta-BHC	0.05		ug/L	U	YES															
delta-BHC	0.05		ug/L	U	YES															
Dieldrin	0.05		ug/L	U	YES															
Endosulfan I	0.05		ug/L	U	YES															
Endosulfan II	0.05		ug/L	U	YES															
Endosulfan sulfate	0.05		ug/L	U	YES															
Endrin	0.05		ug/L	U	YES															
Endrin aldehyde	0.05		ug/L	U	YES															
Endrin ketone	0.05		ug/L	U	YES															
gamma-BHC	0.05		ug/L	U	YES															
gamma-Chlordane	0.05		ug/L	U	YES															
Heptachlor	0.05		ug/L	U	YES															
Heptachlor epoxide	0.05		ug/L	U	YES															
Methoxychlor	0.05		ug/L	U	YES															
Toxaphene	1.0		ug/L	U	YES															
Analysis Method : 8260B					**Dilution: 1**															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	1.0		ug/L	U	YES															
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															
Analysis Method : 8270C					**Dilution: 1**															
1,2,4-Trichlorobenzene	10.0		ug/L	U	YES															
1,2-Dichlorobenzene	10.0		ug/L	U	YES															
1,2-Diphenylhydrazine	10.0		ug/L	U	YES															
1,3-Dichlorobenzene	10.0		ug/L	U	YES															
1,4-Dichlorobenzene	10.0		ug/L	U	YES															
2,4,5-Trichlorophenol	10.0		ug/L	U	YES															
2,4,6-Trichlorophenol	10.0		ug/L	U	YES															
2,4-Dichlorophenol	10.0		ug/L	U	YES															
2,4-Dimethylphenol	10.0		ug/L	U	YES															
2,4-Dinitrophenol	20.0		ug/L	U	YES															
2,4-Dinitrotoluene	20.0		ug/L	U	YES															
2,6-Dinitrotoluene	20.0		ug/L	U	YES															
2-Chloronaphthalene	10.0		ug/L	U	YES															
2-Chlorophenol	10.0		ug/L	U	YES															
2-METHYL-4,6-DINITROPHENOL	20.0		ug/L	U	YES															
2-Methylnaphthalene	10.0		ug/L	U	YES															
2-Methylphenol	10.0		ug/L	U	YES															
2-Nitroaniline	20.0		ug/L	U	YES															
2-Nitrophenol	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
3,3'-Dichlorobenzidine	10.0		ug/L	U	YES															
3/4-Methylphenol	10.0		ug/L	U	YES															
3-Nitroaniline	10.0		ug/L	U	YES															
4-BROMOPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Chloro-3-methylphenol	10.0		ug/L	U	YES															
4-Chloroaniline	10.0		ug/L	U	YES															
4-CHLOROPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Nitroaniline	10.0		ug/L	U	YES															
Acenaphthene	10.0		ug/L	U	YES															
Acenaphthylene	10.0		ug/L	U	YES															
Anthracene	10.0		ug/L	U	YES															
Benzo(a)anthracene	10.0		ug/L	U	YES															
Benzo(a)pyrene	10.0		ug/L	U	YES															
Benzo(b)fluoranthene	10.0		ug/L	U	YES															
Benzo(g,h,i)perylene	10.0		ug/L	U	YES															
Benzo(k)fluoranthene	10.0		ug/L	U	YES															
Benzyl alcohol	10.0		ug/L	U	YES															
Bis(2-chloroethoxy)methane	10.0		ug/L	U	YES															
Bis(2-chloroethyl) ether	10.0		ug/L	U	YES															
Bis(2-chloroisopropyl) ether	10.0		ug/L	U	YES															
Bis(2-ethylhexyl) phthalate	20.0		ug/L	U	YES															
Butylbenzyl phthalate	10.0		ug/L	U	YES															
Carbazole	10.0		ug/L	U	YES															
Chrysene	10.0		ug/L	U	YES															
DIBENZO(A,H)ANTHRACENE	10.0		ug/L	U	YES															
Dibenzofuran	20.0		ug/L	U	YES															
Diethyl phthalate	10.0		ug/L	U	YES															
Dimethyl phthalate	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
Di-n-butyl phthalate	10.0		ug/L	U	YES															
Di-n-octyl phthalate	10.0		ug/L	U	YES															
Fluoranthene	10.0		ug/L	U	YES															
Fluorene	10.0		ug/L	U	YES															
Hexachlorobenzene	20.0		ug/L	U	YES															
Hexachlorobutadiene	10.0		ug/L	U	YES															
Hexachloroethane	10.0		ug/L	U	YES															
Indeno(1,2,3-cd)pyrene	10.0		ug/L	U	YES															
Isophorone	10.0		ug/L	U	YES															
Naphthalene	10.0		ug/L	U	YES															
Nitrobenzene	10.0		ug/L	U	YES															
N-Nitrosodimethylamine	10.0		ug/L	U	YES															
N-NITROSO-DI-N-PROPYLAMINE	10.0		ug/L	U	YES															
N-Nitrosodiphenylamine	10.0		ug/L	U	YES															
Pentachlorophenol	20.0		ug/L	U	YES															
Phenanthrene	20.0		ug/L	U	YES															
Phenol	10.0		ug/L	U	YES															
Pyrene	10.0		ug/L	U	YES															
Analysis Method : 8330					**Dilution: 1**															
1,3,5-Trinitrobenzene	1.0		ug/L	U	YES															
1,3-Dinitrobenzene	1.0		ug/L	U	YES															
2,4,6-Trinitrotoluene	1.0		ug/L	U	YES															
2,4-Dinitrotoluene	1.0		ug/L	U	YES															
2,6-Dinitrotoluene	1.0		ug/L	U	YES															
2-Amino-4,6-dinitrotoluene	1.0		ug/L	U	YES															
2-Nitrotoluene	1.0		ug/L	U	YES															
3-Nitrotoluene	1.0		ug/L	U	YES															
4-Amino-2,6-dinitrotoluene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330					**Dilution: 1**															
4-Nitrotoluene	1.0		ug/L	U	YES															
HMX	1.0		ug/L	U	YES															
Nitrobenzene	1.0		ug/L	U	YES															
RDX	1.0		ug/L	U	YES															
Tetryl	1.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 5**															
Bromide	7340		ug/L		YES															
Chloride	810000		ug/L	E	NO															
Fluoride	2600		ug/L	J	YES	**J**								J						
ortho-Phosphate	5000		ug/L	U	YES															
Sulfate as SO4	2170000		ug/L	E	NO															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90425

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	187000		ug/L	E	NO															
Magnesium	154000		ug/L	E	NO															
Potassium	47600		ug/L	E	NO															
Sodium	734000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	1.2		ug/L		YES															
Arsenic	16.3		ug/L		YES															
Barium	60.4		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	0.46		ug/L		YES															
Chromium	43.1		ug/L		YES															
Cobalt	0.98		ug/L		YES															
Copper	15.9		ug/L		YES															
Lead	0.21		ug/L		YES															
Manganese	14.8		ug/L		YES															
Molybdenum	25.1		ug/L		YES															
Selenium	97.9		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	126		ug/L		YES															
Zinc	2490		ug/L	E	NO															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.52		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : M117MW002 **Lab Report Batch :** K0901488 **Lab ID :** CAS_K
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901488-002

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	5.5		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D
Sample Date : 01/30/2009
Lab Sample ID: AX90424

Lab Report Batch : 58024
Analysis Type: **DL1/DIS**

Lab ID : APPL
Sample Matrix : AQ

Reviewed By / Date : AJS 3/14/2009

Approved By / Date AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 40**															
Calcium	123000		ug/L		YES															
Sodium	1880000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90424

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 376.1					**Dilution: 1**															
Sulfide	2000.0		ug/L	U	YES															
Analysis Method : 8081A					**Dilution: 1**															
4,4'-DDD	0.05		ug/L	U	YES															
4,4'-DDE	0.05		ug/L	U	YES															
4,4'-DDT	0.05		ug/L	U	YES															
Aldrin	0.05		ug/L	U	YES															
alpha-BHC	0.05		ug/L	U	YES															
alpha-Chlordane	0.05		ug/L	U	YES															
beta-BHC	0.05		ug/L	U	YES															
delta-BHC	0.05		ug/L	U	YES															
Dieldrin	0.05		ug/L	U	YES															
Endosulfan I	0.05		ug/L	U	YES															
Endosulfan II	0.05		ug/L	U	YES															
Endosulfan sulfate	0.05		ug/L	U	YES															
Endrin	0.05		ug/L	U	YES															
Endrin aldehyde	0.05		ug/L	U	YES															
Endrin ketone	0.05		ug/L	U	YES															
gamma-BHC	0.05		ug/L	U	YES															
gamma-Chlordane	0.05		ug/L	U	YES															
Heptachlor	0.05		ug/L	U	YES															
Heptachlor epoxide	0.05		ug/L	U	YES															
Methoxychlor	0.05		ug/L	U	YES															
Toxaphene	1.0		ug/L	U	YES															
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90424

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	0.2		ug/L	J	YES	**J**								J						
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90424

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	0.4		ug/L	J	YES	**J**								J						
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	2.0		ug/L	U	YES															
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	1.0		ug/L	U	YES															
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90424

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Toluene	0.3		ug/L	J	YES	**J**								J						
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.1		ug/L		YES															
Analysis Method : 8270C					**Dilution: 1**															
1,2,4-Trichlorobenzene	10.0		ug/L	U	YES															
1,2-Dichlorobenzene	10.0		ug/L	U	YES															
1,2-Diphenylhydrazine	10.0		ug/L	U	YES															
1,3-Dichlorobenzene	10.0		ug/L	U	YES															
1,4-Dichlorobenzene	10.0		ug/L	U	YES															
2,4,5-Trichlorophenol	10.0		ug/L	U	YES															
2,4,6-Trichlorophenol	10.0		ug/L	U	YES															
2,4-Dichlorophenol	10.0		ug/L	U	YES															
2,4-Dimethylphenol	10.0		ug/L	U	YES															
2,4-Dinitrophenol	20.0		ug/L	U	YES															
2,4-Dinitrotoluene	20.0		ug/L	U	YES															
2,6-Dinitrotoluene	20.0		ug/L	U	YES															
2-Chloronaphthalene	10.0		ug/L	U	YES															
2-Chlorophenol	10.0		ug/L	U	YES															
2-METHYL-4,6-DINITROPHENOL	20.0		ug/L	U	YES															
2-Methylnaphthalene	10.0		ug/L	U	YES															
2-Methylphenol	10.0		ug/L	U	YES															
2-Nitroaniline	20.0		ug/L	U	YES															
2-Nitrophenol	10.0		ug/L	U	YES															
3,3'-Dichlorobenzidine	10.0		ug/L	U	YES															
3/4-Methylphenol	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

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Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90424

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
3-Nitroaniline	10.0		ug/L	U	YES															
4-BROMOPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Chloro-3-methylphenol	10.0		ug/L	U	YES															
4-Chloroaniline	10.0		ug/L	U	YES															
4-CHLOROPHENYL PHENYL ETHER	10.0		ug/L	U	YES															
4-Nitroaniline	10.0		ug/L	U	YES															
Acenaphthene	10.0		ug/L	U	YES															
Acenaphthylene	10.0		ug/L	U	YES															
Anthracene	10.0		ug/L	U	YES															
Benzo(a)anthracene	10.0		ug/L	U	YES															
Benzo(a)pyrene	10.0		ug/L	U	YES															
Benzo(b)fluoranthene	10.0		ug/L	U	YES															
Benzo(g,h,i)perylene	10.0		ug/L	U	YES															
Benzo(k)fluoranthene	10.0		ug/L	U	YES															
Benzyl alcohol	10.0		ug/L	U	YES															
Bis(2-chloroethoxy)methane	10.0		ug/L	U	YES															
Bis(2-chloroethyl) ether	10.0		ug/L	U	YES															
Bis(2-chloroisopropyl) ether	10.0		ug/L	U	YES															
Bis(2-ethylhexyl) phthalate	20.0		ug/L	U	YES															
Butylbenzyl phthalate	10.0		ug/L	U	YES															
Carbazole	10.0		ug/L	U	YES															
Chrysene	10.0		ug/L	U	YES															
DIBENZO(A,H)ANTHRACENE	10.0		ug/L	U	YES															
Dibenzofuran	20.0		ug/L	U	YES															
Diethyl phthalate	10.0		ug/L	U	YES															
Dimethyl phthalate	10.0		ug/L	U	YES															
Di-n-butyl phthalate	10.0		ug/L	U	YES															
Di-n-octyl phthalate	10.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90424

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C					**Dilution: 1**															
Fluoranthene	10.0		ug/L	U	YES															
Fluorene	10.0		ug/L	U	YES															
Hexachlorobenzene	20.0		ug/L	U	YES															
Hexachlorobutadiene	10.0		ug/L	U	YES															
Hexachloroethane	10.0		ug/L	U	YES															
Indeno(1,2,3-cd)pyrene	10.0		ug/L	U	YES															
Isophorone	10.0		ug/L	U	YES															
Naphthalene	10.0		ug/L	U	YES															
Nitrobenzene	10.0		ug/L	U	YES															
N-Nitrosodimethylamine	10.0		ug/L	U	YES															
N-NITROSO-DI-N-PROPYLAMINE	10.0		ug/L	U	YES															
N-Nitrosodiphenylamine	10.0		ug/L	U	YES															
Pentachlorophenol	20.0		ug/L	U	YES															
Phenanthrene	20.0		ug/L	U	YES															
Phenol	10.0		ug/L	U	YES															
Pyrene	10.0		ug/L	U	YES															
Analysis Method : 8330					**Dilution: 1**															
1,3,5-Trinitrobenzene	1.0		ug/L	U	YES															
1,3-Dinitrobenzene	1.0		ug/L	U	YES															
2,4,6-Trinitrotoluene	1.0		ug/L	U	YES															
2,4-Dinitrotoluene	1.0		ug/L	U	YES															
2,6-Dinitrotoluene	1.0		ug/L	U	YES															
2-Amino-4,6-dinitrotoluene	1.0		ug/L	U	YES															
2-Nitrotoluene	1.0		ug/L	U	YES															
3-Nitrotoluene	1.0		ug/L	U	YES															
4-Amino-2,6-dinitrotoluene	1.0		ug/L	U	YES															
4-Nitrotoluene	1.0		ug/L	U	YES															
HMX	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D
Sample Date : 01/30/2009
Lab Sample ID: AX90424

Lab Report Batch : 58024
Analysis Type: **RES**

Lab ID : APPL
Sample Matrix : AQ

Reviewed By / Date : AJS 3/14/2009

Approved By / Date AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330					**Dilution: 1**															
Nitrobenzene	1.0		ug/L	U	YES															
RDX	1.0		ug/L	U	YES															
Tetryl	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90424

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	120000		ug/L	E	NO															
Magnesium	57700		ug/L		YES															
Potassium	12500		ug/L		YES															
Sodium	1580000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.89		ug/L		YES															
Arsenic	10.2		ug/L		YES															
Barium	10.3		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	0.2		ug/L	U	YES															
Chromium	1.2		ug/L		YES															
Chromium III	1.2		ug/L		YES															
Cobalt	0.46		ug/L	J	YES	**J**								J						
Copper	33.8		ug/L		YES															
Lead	0.13		ug/L	J	YES	**J**								J						
Manganese	158		ug/L		YES															
Molybdenum	23.6		ug/L		YES															
Selenium	52.4		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	5.6		ug/L		YES															
Zinc	375		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.060		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D
Sample Date : 01/30/2009
Lab Sample ID: K0901488-001

Lab Report Batch : K0901488
Analysis Type: RES

Lab ID : CAS_K
Sample Matrix : AQ

Reviewed By / Date : AJS 3/14/2009

Approved By / Date AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 2**															
TOTAL ORGANIC CARBON (TOC)	6.6		mg/L		Yes															

Project Number and Name: **16170398 - Melrose AFR**
Library Used: **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-4 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90426

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 2**															
Ammonia as N	31200		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-4 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90426

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 2**															
Sodium	50700		ug/L		YES															
Analysis Method : 6020A					**Dilution: 5**															
Zinc	2390		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-4 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90426

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	28900		ug/L	E	NO															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	58.6		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-4 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90426

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	5550		ug/L		YES															
Magnesium	4570		ug/L		YES															
Potassium	38400		ug/L		YES															
Sodium	50300		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.23		ug/L		YES	**U**			U											
Arsenic	0.88		ug/L		YES															
Barium	17.4		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	0.52		ug/L		YES															
Chromium	0.65		ug/L		YES															
Chromium III	0.65		ug/L		YES															
Cobalt	0.71		ug/L		YES															
Copper	2.4		ug/L		YES															
Lead	0.47		ug/L		YES															
Manganese	115		ug/L		YES															
Molybdenum	1.5		ug/L		YES															
Selenium	2.2		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	0.093		ug/L	J	YES	**J**								J						
Zinc	2380		ug/L	E	NO															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-4 **Lab Report Batch :** K0901488 **Lab ID :** CAS_K
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901488-003

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	8.1		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB-300109 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90423

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
1,1,1,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,1-Trichloroethane	1.0		ug/L	U	YES															
1,1,2,2-Tetrachloroethane	1.0		ug/L	U	YES															
1,1,2-Trichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethane	1.0		ug/L	U	YES															
1,1-Dichloroethene	1.0		ug/L	U	YES															
1,1-Dichloropropene	1.0		ug/L	U	YES															
1,2,3-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,3-Trichloropropane	2.0		ug/L	U	YES															
1,2,4-Trichlorobenzene	1.0		ug/L	U	YES															
1,2,4-Trimethylbenzene	1.0		ug/L	U	YES															
1,2-Dibromo-3-chloropropane	2.0		ug/L	U	YES															
1,2-Dibromoethane	1.0		ug/L	U	YES															
1,2-Dichlorobenzene	1.0		ug/L	U	YES															
1,2-Dichloroethane	1.0		ug/L	U	YES															
1,2-Dichloropropane	1.0		ug/L	U	YES															
1,3,5-Trimethylbenzene	1.0		ug/L	U	YES															
1,3-Dichlorobenzene	1.0		ug/L	U	YES															
1,3-Dichloropropane	1.0		ug/L	U	YES															
1,4-Dichlorobenzene	1.0		ug/L	U	YES															
2,2-Dichloropropane	1.0		ug/L	U	YES															
2-Butanone	10.0		ug/L	U	YES															
2-Chlorotoluene	1.0		ug/L	U	YES															
2-Hexanone	10.0		ug/L	U	YES															
4-Chlorotoluene	1.0		ug/L	U	YES															
4-Methyl-2-pentanone	10.0		ug/L	U	YES															
Acetone	10.0		ug/L	U	YES															
Benzene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB-300109 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90423

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
Bromobenzene	1.0		ug/L	U	YES															
Bromochloromethane	1.0		ug/L	U	YES															
Bromodichloromethane	1.0		ug/L	U	YES															
Bromoform	1.0		ug/L	U	YES															
Bromomethane	2.0		ug/L	U	YES															
Carbon disulfide	1.0		ug/L	U	YES															
Carbon tetrachloride	1.0		ug/L	U	YES															
Chlorobenzene	1.0		ug/L	U	YES															
Chloroethane	1.0		ug/L	U	YES															
Chloroform	1.0		ug/L	U	YES															
Chloromethane	1.0		ug/L	U	YES															
cis-1,2-Dichloroethene	1.0		ug/L	U	YES															
cis-1,3-Dichloropropene	1.0		ug/L	U	YES															
Dibromomethane	1.0		ug/L	U	YES															
Dichlorodifluoromethane	1.0		ug/L	U	YES															
Ethylbenzene	1.0		ug/L	U	YES															
Hexachlorobutadiene	1.0		ug/L	U	YES															
Isopropylbenzene	1.0		ug/L	U	YES															
m,p-Xylenes	0.3		ug/L	J	YES	**J**								J						
Methyl tert-butyl ether	1.0		ug/L	U	YES															
Methylene chloride	5.0		ug/L	U	YES															
Naphthalene	1.0		ug/L	U	YES															
n-Butylbenzene	1.0		ug/L	U	YES															
n-Propylbenzene	1.0		ug/L	U	YES															
o-Xylene	1.0		ug/L	U	YES															
p-Isopropyltoluene	1.0		ug/L	U	YES															
sec-Butylbenzene	1.0		ug/L	U	YES															
Styrene	1.0		ug/L	U	YES															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : TB-300109 **Lab Report Batch :** 58024 **Lab ID :** APPL
Sample Date : 01/30/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90423

Reviewed By / Date : AJS 3/14/2009 **Approved By / Date** AJS 3/14/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B					**Dilution: 1**															
tert-Butylbenzene	1.0		ug/L	U	YES															
Tetrachloroethene	1.0		ug/L	U	YES															
Toluene	1.0		ug/L	U	YES															
trans-1,2-Dichloroethene	1.0		ug/L	U	YES															
trans-1,3-Dichloropropene	1.0		ug/L	U	YES															
Trichloroethene	1.0		ug/L	U	YES															
Trichlorofluoromethane	1.0		ug/L	U	YES															
Vinyl chloride	1.0		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-4 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90564

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	260000		ug/L		YES	**J**		J												
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	387000		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-5 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type:** **DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90565

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 5**															
Sodium	135000		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-5 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90565

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	618000		ug/L		YES	**J**		J												
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	625000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	5580		ug/L		YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	34.2		ug/L	J	YES	**J**								J						
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1910		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-5 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90565

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	67500		ug/L		YES															
Magnesium	25700		ug/L		YES															
Potassium	6740		ug/L		YES															
Sodium	117000		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	1.0		ug/L		YES															
Barium	153		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	1.7		ug/L		YES															
Chromium	0.92		ug/L		YES															
Chromium III	0.92		ug/L		YES															
Cobalt	0.67		ug/L		YES															
Copper	3.4		ug/L		YES															
Lead	0.37		ug/L		YES															
Manganese	259		ug/L		YES															
Molybdenum	0.85		ug/L		YES															
Selenium	3.0		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	3.2		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-5 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90565

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.026		ug/L	J	YES	**U**			U											
Zinc	16.8		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-5 **Lab Report Batch :** K0901367 **Lab ID :** CAS_K
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901367-003

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	5.7		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-6 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90562

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 2**															
Sodium	62200		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-6 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90562

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	324000		ug/L		YES	**J**		J												
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	93000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	317		ug/L	J	YES	**J**								J						
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	60.8		ug/L	J	YES	**J**								J						
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-6 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90562

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	20500		ug/L		YES															
Magnesium	14000		ug/L		YES															
Potassium	4750		ug/L		YES															
Sodium	58700		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	1.8		ug/L		YES															
Barium	11.2		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	0.21		ug/L		YES															
Chromium	0.31		ug/L	J	YES	**U**			U											
Chromium III	0.31		ug/L	J	YES	**J**								J						
Cobalt	0.097		ug/L	J	YES	**J**								J						
Copper	1.8		ug/L		YES															
Lead	0.21		ug/L		YES															
Manganese	51.2		ug/L		YES															
Molybdenum	1.3		ug/L		YES															
Selenium	3.1		ug/L		YES															
Silver	0.078		ug/L	J	YES	**J**								J						
Vanadium	3.4		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-6 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90562

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.053		ug/L	J	YES	**U**			U											
Zinc	17.9		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-6 **Lab Report Batch :** K0901367 **Lab ID :** CAS_K
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901367-001

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	1.1		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-7 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: DL** **Sample Matrix :** AQ
Lab Sample ID: AX90563

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 350.1					**Dilution: 10**															
Ammonia as N	89100		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-7 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90563

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 2**															
Sodium	54600		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-7 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90563

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	234000		ug/L		YES	**J**		J												
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	785000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	74800		ug/L	E	NO															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	500		ug/L	U	YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES	**UJ**		UJ												
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-7 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90563

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	5920		ug/L		YES															
Magnesium	3780		ug/L		YES															
Potassium	32700		ug/L		YES															
Sodium	51500		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	1.4		ug/L		YES															
Barium	6.9		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	4.8		ug/L		YES															
Chromium	0.39		ug/L	J	YES	**J**								J						
Chromium III	0.39		ug/L	J	YES	**J**								J						
Cobalt	0.71		ug/L		YES															
Copper	3.7		ug/L		YES															
Lead	0.34		ug/L		YES															
Manganese	12.6		ug/L		YES															
Molybdenum	6.8		ug/L		YES															
Selenium	1.5		ug/L		YES															
Silver	0.2		ug/L	U	YES															
Vanadium	0.093		ug/L	J	YES	**J**								J						
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.15		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-7 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90563

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.20		ug/L		YES	**U**			U											
Zinc	52.5		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWL-7 **Lab Report Batch :** K0901367 **Lab ID :** CAS_K
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901367-002

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	5.7		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-4 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: DL1/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90566

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 2**															
Sodium	51500		ug/L		YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-4 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90566

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 160.1					**Dilution: 1**															
Total Dissolved Solids	368000		ug/L		YES	**J**		J												
Analysis Method : 310.1					**Dilution: 1**															
Alkalinity, Total	285000		ug/L		YES															
Analysis Method : 350.1					**Dilution: 1**															
Ammonia as N	500		ug/L	U	YES															
Analysis Method : 353.2					**Dilution: 1**															
Nitrogen, Nitrate-Nitrite	4820		ug/L		YES															
Analysis Method : 7196A					**Dilution: 1**															
Hexavalent chromium	20.0		ug/L	U	YES															
Analysis Method : 9056					**Dilution: 1**															
ortho-Phosphate	1000		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-4 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES/DIS** **Sample Matrix :** AQ
Lab Sample ID: AX90566

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6010B					**Dilution: 1**															
Calcium	39800		ug/L		YES															
Magnesium	18600		ug/L		YES															
Potassium	2680		ug/L		YES															
Sodium	50300		ug/L	E	NO															
Titanium	5.0		ug/L	U	YES															
Analysis Method : 6020A					**Dilution: 1**															
Arsenic	7.9		ug/L		YES															
Barium	44.7		ug/L		YES															
Beryllium	0.2		ug/L	U	YES															
Cadmium	0.35		ug/L		YES															
Chromium	0.61		ug/L		YES															
Chromium III	0.61		ug/L		YES															
Cobalt	0.070		ug/L	J	YES	**J**								J						
Copper	6.4		ug/L		YES	**J**						J								
Lead	0.21		ug/L		YES															
Manganese	0.58		ug/L		YES															
Molybdenum	3.5		ug/L		YES															
Selenium	3.5		ug/L		YES															
Silver	0.033		ug/L	J	YES	**J**								J						
Vanadium	53.7		ug/L		YES															
Analysis Method : 7470A					**Dilution: 1**															
Mercury	0.2		ug/L	U	YES															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-4 **Lab Report Batch :** 58041 **Lab ID :** APPL
Sample Date : 02/02/2009 **Analysis Type: RES2** **Sample Matrix :** AQ
Lab Sample ID: AX90566

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overal l	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020A					**Dilution: 1**															
Antimony	0.2		ug/L	U	YES															
Zinc	11.6		ug/L	J	YES	**J**								J						

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MWQ-4 **Lab Report Batch :** K0901367 **Lab ID :** CAS_K
Sample Date : 02/02/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: K0901367-004

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9060					**Dilution: 1**															
TOTAL ORGANIC CARBON (TOC)	0.6		mg/L		Yes															

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D
Sample Date : 02/03/2009
Lab Sample ID: AX90641

Lab Report Batch : 58054
Analysis Type: DL

Lab ID : APPL
Sample Matrix : AQ

Reviewed By / Date : AJS 3/9/2009

Approved By / Date AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 9056					**Dilution: 50**															
Chloride	2120000		ug/L		YES															
Sulfate as SO4	2020000		ug/L		YES															

Project Number and Name: **16170398 - Melrose AFR**

Library Used: **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

Sample Qualification Report (All Analytes)

Client Sample ID : MA02MW001D **Lab Report Batch :** 58054 **Lab ID :** APPL
Sample Date : 02/03/2009 **Analysis Type: RES** **Sample Matrix :** AQ
Lab Sample ID: AX90641

Reviewed By / Date : AJS 3/9/2009 **Approved By / Date** AJS 3/9/2009

Analyte Name	Result	Uncertainty /	Result Units	Lab Qual	Rep Res	Overall	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6850					**Dilution: 10**															
Perchlorate	19		ug/L		YES															
Analysis Method : 9056					**Dilution: 10**															
Bromide	12100		ug/L		YES															
Chloride	2400000		ug/L	E	NO															
Fluoride	1120		ug/L	J	YES	**J**								J						
ortho-Phosphate	10000		ug/L	U	YES															
Sulfate as SO4	2490000		ug/L	E	NO															

Project Number and Name: **16170398 - Melrose AFR** **Library Used:** **Melrose AFR 090302**

* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by

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12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM

Project Number: 16170398

Project Location: Melrose AFR, Clovis, NM

Project Manager: J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Metals (6010B, 6020A)*	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)	Total Organic Carbon (9060), ~~Phosphorus (365.2)~~, Ammonia (350.1), Nitrate/Nitrite (353.2)	Phosphate			Remarks
1/20/09	0800		X	MWQ-60	Water		A,B,C	X	X	X				4°C
	0900			MWQ-10			A,B,C	X	X	X				4°C
	1130			MWQ-7			A,B,C	X	X	X				4°C
	1400			MWQ-6			A,B,C	X	X	X				4°C
	1400			MWQ-6 MS/MSD			A,B,C	X	X	X				4°C
	1800			MWQ-57			A,B,C	X	X	X				4°C

Signatures	Date	Time
Relinquished by:	1/20/09	1700
Received by:		
Relinquished by:		
Received for Laboratory by:	1/21/09	945

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 8682 9161 8853

Lab Address: APPL, Inc.
Attn: Diane Anderson
4203 W. Swift Ave
Fresno, CA 93722
(559) 275-2175

Special Instructions

* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A).

(A) (2) 500 mL HDPE (Metals)

(B) (1) 500 mL HDPE (Total Dissolved Solids, Hexavalent Chromium, Alkalinity)

(C) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia, Nitrate/Nitrite)

500

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM
Project Number: 16170398
Project Location: Melrose AFR, Clovis, NM
Project Manager: J. Voelker
Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Metals (6010B, 6020A)*	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)	Total Organic Carbon (9060), ~~Phosphorus~~ (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)	Phosphorus			Remarks
1/21/09	0800		X	MWQ-53	Water	4	A,B,C	X	X	X				4°C
↓	1220		↓	MWQ-2	↓	↓	A,B,C	↓	↓	↓				4°C
↓	1200		↓	MWQ-2 MS/MSD	↓	↓	A,B,C	↓	↓	↓				4°C
↓	1435		↓	MWQ-3	↓	↓	A,B,C	↓	↓	↓				4°C

Signatures	Date	Time
Relinquished by:	1/21/09	1700
Received by:		
Relinquished by:		
Received for Laboratory by:	1-22-09	1000

Shipping Details
Method of Shipment: Federal Express
Airbill Number: ~~1787~~ DC 868291618761
Lab Address: APPL, Inc.
Attn: Diane Anderson
4203 W. Swift Ave
Fresno, CA 93722
(559) 275-2175

Special Instructions
* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A).
(A) (2) 500 mL HDPE (Metals)
(B) (1) 500 mL HDPE (Total Dissolved Solids, Hexavalent Chromium, Alkalinity)
(C) (1) ~~250 mL~~ 500 HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia, Nitrate/Nitrite)

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM

Project Number: 16170398

Project Location: Melrose AFR, Clovis, NM

Project Manager: J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Metals (6010B, 6020A)*	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)	Total Organic Carbon (9060), Phosphorus (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2) Phosphate				Remarks
1/22/09	0930		X	MWL-9	Water	4	A,B,C	X	X	X				4°C
	1225			MWQ-18										4°C
	1400			MWQ-19										4°C
	1535			MWQ-20										4°C

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	1/22/09	1730	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (2) 500 mL HDPE (Metals) (B) (1) 500 mL HDPE (Total Dissolved Solids, Hexavalent Chromium, Alkalinity) (C) (1) ~~250~~ 500 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia, Nitrate/Nitrite)
Received by:			Airbill Number: 8682 9161 8772	
Relinquished by:			Lab Address: APPL, Inc. Attn: Diane Anderson 4203 W. Swift Ave Fresno, CA 93722 (559) 275-2175	
Received for Laboratory by:	1-23-09	1005		

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CHAIN OF CUSTODY RECORD

Project Name:	Project Number:
Melrose AFR LTM	16170398
Project Location:	**Project Manager:**
Melrose AFR, Clovis, NM	J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Metals (6010B, 6020A)*	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)	Total Organic Carbon (9060), ~~Phosphorus~~ (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2) Phosphate				Remarks
1/23/09	0945		X	MWQ-21	Water	4	A,B,C	↓	↓	↓				4°C
↓	1220		↓	MWQ-22	↓	↓	↓	↓	↓	↓				4°C
↓	1355		↓	MWQ-5	↓	↓	↓	↓	↓	↓				4°C

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	1/23/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (2) 500 mL HDPE (Metals) (B) (1) 500 mL HDPE (Total Dissolved Solids, Hexavalent Chromium, Alkalinity) (C) (1) ~~250 mL~~ 500 HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia, Nitrate/Nitrite)
Received by:			Airbill Number: 8682 9161 8810	
Relinquished by:			Lab Address: APPL, Inc. Attn: Diane Anderson 4203 W. Swift Ave Fresno, CA 93722 (559) 275-2175	
Received for Laboratory by: Stephanie	1/24/09	11:30		

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CHAIN OF CUSTODY RECORD

Project Name:	Project Number:
Melrose AFR LTM	16170398
Project Location:	Project Manager:
Melrose AFR, Clovis, NM	J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
1/26/09	0800		X	~~TB06~~ DC TB260109	Water	1	40 mL VOA	X								4°C + HCL
	0945		↓	M114MW004	Water	13	A,B,C,D,E,F,G	X	X	X	X	X	X	X		4°C
↓	1225		↓	M114MW001	↓	↓	A,B,C,D,E,F,G	↓	↓	↓	↓	↓	↓	↓		4°C

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	1/26/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (3) 40 mL VOAs w/ HCL (VOCs) (B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides) (C) (2) 500 mL HDPE (Metals) (D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate) (E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide) (F) (2) 250 mL Ambers (Explosives) (G) (1) ~~250~~ 500 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia)
Received by:			Airbill Number: 8682 9161 8990	
Relinquished by:			Lab Address: APPL, Inc. Attn: Diane Anderson 4203 W. Swift Ave Fresno, CA 93722 (559) 275-2175	
Received for Laboratory by:	1/27/09	1350		

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URS Corporation

12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name:	Project Number:
Melrose AFR LTM	16170398
Project Location:	Project Manager:
Melrose AFR, Clovis, NM	J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
1/26/09	0830		X	TB2-260109	Water	1	40 mL VOA	X								4°C + HCL
↓	1455		↓	M114MW002	Water	13	A,B,C,D,E,F,G	X	X	X	X	X	X	X		4°C

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	1/26/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (3) 40 mL VOAs w/ HCL (VOCs) (B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides) (C) (2) 500 mL HDPE (Metals) (D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate) (E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide) (F) (2) 250 mL Ambers (Explosives) (G) (1) ~~250~~ 500 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia)
Received by:			Airbill Number: 8682 9161 8990	
Relinquished by:			Lab Address: APPL, Inc. Attn: Diane Anderson 4203 W. Swift Ave Fresno, CA 93722 (559) 275-2175	
Received for Laboratory by:	1/27/09	1350		

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM
Project Number: 16170398
Project Location: Melrose AFR, Clovis, NM
Project Manager: J. Voelker
Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
1/27/09	0800		X	TB1-270109	Water	1	40 mL VOA	X								4°C + HCL
↓	1010		↓	M114MW003	Water	12	A,B,C,~~D~~,E,F,G	X	X	X		X	X	X		4°C
↓	1355			MA01MW004	↓	↓	↓	↓	↓	↓		↓	↓	↓		4°C
1/28/09	1000			M114MW003		1	D				X					4°C
↓	1140		↓	MA01MW004	↓	↓	↓				↓					4°C

Signatures	Date	Time
Relinquished by:	1/28/09	1700
Received by:		
Relinquished by:		
Received for Laboratory by:	1/29/09	1305

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 8682 9161 8989
Lab Address: APPL, Inc.
Attn: Diane Anderson
4203 W. Swift Ave
Fresno, CA 93722
(559) 275-2175

Special Instructions
* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A).
(A) (3) 40 mL VOAs w/ HCL (VOCs)
(B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides)
(C) (2) 500 mL HDPE (Metals)
(D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate)
(E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide)
(F) (2) 250 mL Ambers (Explosives)
(G) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia)

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM
Project Number: 16170398
Project Location: Melrose AFR, Clovis, NM
Project Manager: J. Voelker
Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
1/27/09	0830		X	TB2-270109	Water	1	40mL VOA	X								4°C + HCL
↓	1600		↓	MA01MW054	Water	12	A,B,C,E,F,G	X	X	X		X	X	X		4°C
1/28/09	0800		↓	MA01MW054	↓	1	D				X					4°C

Signatures	Date	Time
Relinquished by:	1/28/09	1700
Received by:		
Relinquished by:		
Received for Laboratory by:	1/29/09	1305

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 8682 9161 8989
Lab Address: APPL, Inc.
Attn: Diane Anderson
4203 W. Swift Ave
Fresno, CA 93722
(559) 275-2175

Special Instructions
* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A).
(A) (3) 40 mL VOAs w/ HCL (VOCs)
(B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides)
(C) (2) 500 mL HDPE (Metals)
(D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate)
(E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide)
(F) (2) 250 mL Ambers (Explosives)
(G) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia)

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM

Project Number: 16170398

Project Location: Melrose AFR, Clovis, NM

Project Manager: J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
1/28/09	0700		X	TB1-280109	Water	1	40 mL VOA	X								4°C + HCL
↓	1255		↓	MA01MW002	Water	13	A,B,C,D,E,F,G	X	X	X	X	X	X	X		4°C
↓	↓		↓	MA01MW002 MS/MSD	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		4°C

Signatures	Date	Time
Relinquished by:	1/28/09	1700
Received by:		
Relinquished by:		
Received for Laboratory by:	1/29/09	1365

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 8682 9161 8989

Lab Address: APPL, Inc.
Attn: Diane Anderson
4203 W. Swift Ave
Fresno, CA 93722
(559) 275-2175

Special Instructions

* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A).
(A) (3) 40 mL VOAs w/ HCL (VOCs)
(B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides)
(C) (2) 500 mL HDPE (Metals)
(D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate)
(E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide)
(F) (2) 250 mL Ambers (Explosives)
(G) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia)

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM
Project Number: 16170398
Project Location: Melrose AFR, Clovis, NM
Project Manager: J. Voelker
Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
1/29/09	0800		X	TB1-290109	Water	1	40 mL VOA	X								4°C + HCL
↓	1050		↓	MA01MW001	Water	13	A,B,C,D,E,F,G	X	X	X	X	X	X	X		4°C
↓	1250		↓	MA01MW003	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		4°C

Signatures	Date	Time
Relinquished by:	1/29/09	1700
Received by:		
Relinquished by:		
Received for Laboratory by:	1/30/09	1315

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 8682 9161 8842
Lab Address: APPL, Inc.
Attn: Diane Anderson
4203 W. Swift Ave
Fresno, CA 93722
(559) 275-2175

Special Instructions
* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A).
(A) (3) 40 mL VOAs w/ HCL (VOCs)
(B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides)
(C) (2) 500 mL HDPE (Metals)
(D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate)
(E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide)
(F) (2) 250 mL Ambers (Explosives)
(G) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia)

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM

Project Number: 16170398

Project Location: Melrose AFR, Clovis, NM

Project Manager: J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Metals (6010B, 6020A)*	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)	Total Organic Carbon (9060), ~~Phosphorus~~ (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)	Phosphate			Remarks
1/29/09	0910		X	MWQ-14	Water	4	A,B,C	X	X	X				4°C

Signatures	Date	Time
Relinquished by:	1/29/09	1700
Received by:		
Relinquished by:		
Received for Laboratory by:	1/30/09	1315

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 8682 9161 8842

Lab Address: APPL, Inc.
Attn: Diane Anderson
4203 W. Swift Ave
Fresno, CA 93722
(559) 275-2175

Special Instructions

* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A).
(A) (2) 500 mL HDPE (Metals)
(B) (1) 500 mL HDPE (Total Dissolved Solids, Hexavalent Chromium, Alkalinity)
(C) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia, Nitrate/Nitrite)

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM

Project Number: 16170398

Project Location: Melrose AFR, Clovis, NM

Project Manager: J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
1/30/09	0800		X	TB1 - 30/09	Water	1	40 mL VOA	X								4°C + HCL
	0855		↓	MA02MW001D	Water	13	A,B,C,D,E,F,G	X	X	X	X	X	X	X		4°C
↓	1105		↓	M117MW002	↓	11	↓ *	X	X	X	X	X	X	X		4°C - Only .5 L Ambers for SVOCs/Org. Pest. sampled. 3 L not provided!

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	1/30/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (3) 40 mL VOAs w/ HCL (VOCs) (B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides) (C) (2) 500 mL HDPE (Metals) (D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate) (E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide) (F) (2) 250 mL Ambers (Explosives) (G) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia) * Only .5 L for (B) provided. Not 3-L.
Received by:			Airbill Number: 8682 9161 8820	
Relinquished by:			Lab Address: APPL, Inc. Attn: Diane Anderson 4203 W. Swift Ave Fresno, CA 93722 (559) 275-2175	
Received for Laboratory by:	1/31/09	12:00		

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM

Project Number: 16170398

Project Location: Melrose AFR, Clovis, NM

Project Manager: J. Voelker

Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Metals (6010B, 6020A)*	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)	Total Organic Carbon (9060), Phosphorus (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)				Remarks
1/30/09	1430		X	MWL-4	Water	134	A,B,C	X	X	X				4°C

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	1/30/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (2) 500 mL HDPE (Metals) (B) (1) 500 mL HDPE (Total Dissolved Solids, Hexavalent Chromium, Alkalinity) (C) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia, Nitrate/Nitrite)
Received by:			Airbill Number: 8682 9161 8820	
Relinquished by:			Lab Address: APPL, Inc. Attn: Diane Anderson 4203 W. Swift Ave Fresno, CA 93722 (559) 275-2175	
Received for Laboratory by:	1/31/09	1200		

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM
Project Number: 16170398
Project Location: Melrose AFR, Clovis, NM
Project Manager: J. Voelker
Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Metals (6010B, 6020A)*	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)	Total Organic Carbon (9060), Phosphorus (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)				Remarks
2/2/09	0910		X	MWL-6	Water	4	A,B,C	X	X	X				4°C
	1040			MWL-7		4		X	X	X				4°C
	1200			MWL-4		1	B		X					4°C *
	1320			MWL-5		4	A,B,C	X	X	X				4°C
	1435			MWQ-4		4		X	X	X				4°C

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	2/2/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (2) 500 mL HDPE (Metals) (B) (1) 500 mL HDPE (Total Dissolved Solids, Hexavalent Chromium, Alkalinity) (C) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia, Nitrate/Nitrite)
Received by:			Airbill Number: 8682 9161 8783	
Relinquished by:			Lab Address: APPL, Inc. Attn: Diane Anderson 4203 W. Swift Ave Fresno, CA 93722 (559) 275-2175	* Resample for (B), use samples from 1-30-09 for (A,C) for MWL-4.
Received for Laboratory by:	2-3-09	1220		

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CHAIN OF CUSTODY RECORD

Project Name: Melrose AFR LTM
Project Number: 16170398
Project Location: Melrose AFR, Clovis, NM
Project Manager: J. Voelker
Sampler(s): D. Converse, M. Shoop

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
			X	TB	Water											4°C + HCL
2/3/09	0920		X	MA02MW001D	Water	1	~~A,B,C,D,E,F,G~~ D				X					4°C *

Signatures / Date / Time / Shipping Details / Special Instructions

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	2/3/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (3) 40 mL VOAs w/ HCL (VOCs) (B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides) (C) (2) 500 mL HDPE (Metals) (D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate) (E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide) (F) (2) 250 mL Ambers (Explosives) (G) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia)
Received by:			Airbill Number: 8682 9161 8912	
Relinquished by:			Lab Address: APPL, Inc. Attn: Diane Anderson 4203 W. Swift Ave Fresno, CA 93722 (559) 275-2175	
Received for Laboratory by:	2/4/09	1030		* Resample (D) 2-3-09, (A,B,C,E,F,G) samples for 1-30-09.

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CHAIN OF CUSTODY RECORD

09A165

Project Name:	Project Number:
Melrose AFR LTM	16170398
Project Location:	**Project Manager:**
Melrose AFR, Clovis, NM	J. Voelker

Sampler(s): D. Converse, M. Shoop

	Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Metals (6010B, 6020A)*	TDS (160.1), Hexavalent Chromium (7196A)*, Alkalinity (310.2)	Total Organic Carbon (9060), ~~Phosphorus~~ (365.2), Ammonia (350.1), Nitrate/Nitrite (353.2)	Phosphate			Remarks
1	1/20/09	0900		X	MWQ-10 Split	Water	4	A,B,C	X	X	X				4°C
2	↓	1130		X	MWQ-7 Split	↓	↓	A,B,C	X	X	X				4°C

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	1/20/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A). (A) (2) 500 mL HDPE (Metals) (B) (1) 500 mL HDPE (Total Dissolved Solids, Hexavalent Chromium, Alkalinity) (C) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia, Nitrate/Nitrite)
Received by:			Airbill Number: 8682 9161 8750	
Relinquished by:			Lab Address: ~~APPL, Inc.~~ EMAX LAB ~~Attn: Diane Anderson~~ 1835 W. 205ST ~~4203 W. Swift Ave~~ Torrance, CA 90501 ~~Fresno, CA 93722~~ (310) 618-8889 ~~(559) 275-2175~~	
Received for Laboratory by:	1/21/09	9:30		T = 3.0° C

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ATTN: Molly Nguyen

URS Corporation
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

09A263

Project Name:	Project Number:
Melrose AFR LTM	16170398
Project Location:	**Project Manager:**
Melrose AFR, Clovis, NM	J. Voelker

Sampler(s): D. Converse, M. Shoop

	Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	VOCs (8260B)	SVOCs (8270C), Organochlorine Pest. (8081A)	Metals (6010B, 6020A, 7470A)*	Hexavalent Chromium (7196A)*, Perchlorate (6850), Bromide, Chloride, Fluoride, Sulfate (9056)	Sulfide (9034)	Explosives (8330)	Total Organic Carbon (9060), Phosphate (365.2), Ammonia (350.1)		Remarks
1	1/29/09	0830		X	TB2-290109	Water	1	40 mL VOA	X								4°C + HCL
2	↓	1250		↓	MA01MW003 Split	Water	13	A,B,C,D,E,F,G	X	X	X	X	X	X	X		4°C

Analytical Parameters

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	1/29/09	1700	Method of Shipment: Federal Express	* Filter and preserve groundwater sample before analyzing for Metals (6010B, 6020A, 7470A) and Hexavalent Chromium (7196A).
Received by:			Airbill Number: 8682 9161 8809	(A) (3) 40 mL VOAs w/ HCL (VOCs)
Relinquished by:			Lab Address: ~~APPL, Inc.~~ EMAX LAB ~~Attn: Diane Anderson~~ 1835 W. 205 ST ~~4203 W. Swift Ave.~~ Torrance, CA ~~Fresno, CA 93722~~ 90501 ~~(559) 275-2175~~	(B) (3) 1 L Ambers (SVOCs, Organochlorine Pesticides)
Received for Laboratory by:	1-30-09	9:35 AM		(C) (2) 500 mL HDPE (Metals)
				(D) (1) 500 mL HDPE (Hexavalent Chromium, Bromide, Chloride, Fluoride, Sulfate, and Perchlorate)
				(E) (1) 500 mL HDPE w/ ZnOAc/NaOH (Sulfide)
				(F) (2) 250 mL Ambers (Explosives)
				(G) (1) 250 mL HDPE w/ H_2SO_4 (Total Organic Carbon, Phosphate, Ammonia)

I:\Cannon AFB\Melrose\Field\COCs

T=2.8°C

White copy - Laboratory Yellow copy - Laboratory Pink copy - URS

Attn: Molly Nguyen
(310) 618-8889