TA-21 21-013(c)

Dioxin/ Furan for Sample RE21-06-68292

Los Alamos National Laboratory
Environmental Programs Technical Area 21

Operated by the Los Alamos National Security, LLC, for DOE/NNSA

FAX TRANSMITTAL

TA 21 Project Office
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TO: Katie Chamberlain FAX# 428-2567

Organization: NMED Phone:

FROM: mark Thacker Return FAX# 606-0864

Phone: 699-1963

#Pages Incl. Cover 8

Message:

Los Alamos National Laboratory
Environmental Programs Technical Area 21

Operated by the Los Alamos National Security, LLC, for DOE/NNSA

DAILY REPORT

CONTRACT # :	PROJECT TITLE & LOCATION:	REPORT DATE: 7/27/06
DE-AC52-06NA25396	DP Aggregate Area at TA-21 SWMU 21-013(c)	Start Time: 0700 End Time: 1700

CONTRACTOR:	CONTRACTOR'S REPRESENTATIVES:
Accelerated Remediation Corporation (ARC)	Keith Tucker

AM WEATHER:	PM WEATHER:	PRECIPITATION:	MAX TEMP:	MIN. TEMP:
Clear, warm	p. cloudy, hot	Afternoon T-storms w/ lightning	NA	NA

ON-SITE PERSONNEL AND TASKS PERFORMED/AREA OF RESPONSIBILITY

TRADE/TITLE	EMPLOYER / ON-SITE		PERSONNEL	WORK DESCRIPTION
Field Team Leader	Portage	X	Randy Vigil	Responsible for implementation of field operations/ heavy equipment operator.
Task Manager/SSO	Portage	X	Curtis Schultz	Responsible for daily operations oversight and communications with LANS staff. As SSO, responsible for implementing site health and safety.
WMC	Portage		Brett Cummins	Responsible for all waste management activities.
WMC	Shaw		Doug Hopinkah	Responsible for all waste management activities.
Operator, field supervisor	Portage		Jared Pompeo	Heavy Equipment Operator, field activities implementation
Radiological Control Technician (RCT)	LANL	X	John Barton	Radiological sample screening and site monitoring.
Supervisor	Laguna	X	Andy Long	Laguna field operations manager
Sample Tech	Laguna	X	Larry Poncho	Field support/sampling/heavy equipment operator.
Sample Tech	Laguna	X	Franklin Silva	Field support/sampling/heavy equipment operator.
Sample Tech	Portage	X	Serafin (JR) Vigil	Field support/sampling/heavy equipment operator.
Sample Tech	Portage	X	Gabe Gallegos	Field support/sampling/heavy equipment operator.
Sample Tech	Portage	X	Antoinette Toya	Field support/sample preparation for SMO.

EQUIPMENT USED

EQUIPMENT DESCRIPTION	# OF UNITS	ARRIVAL DATE	LAST SAFETY CHECK (OTHER THAN DAILY)	Comments
Skidsteer	1	6/29/06		Power auger used at all sample locations
Water Truck	1	6/29/06		
PU Truck w/ fuel tank	1	6/29/06		
Back Hoe	1	6/29/06		

DESCRIPTION OF DAILY ACTIVITIES: Crew sampled locations #16 thru #22, 2 depths each. Samples bottled, labeled, and delivered to the SMO. Sampling at SWMU 21-013(c) complete. Crew cleaned up sample trailer and began mob operations to SWMU21-009. Crew put together sample kits for the next site.

Met with Roy Bohn and Mark Thacker to select sample for extended suite. Location #4a was selected for extended suite analysis due to the highest alpha screening value of 75.6 dpm and the highest reading (4100 cpm – I'll check on the this) from the pre-sampling location walkover SPA -3 gamma probe survey. The PID readings for the entire site were low. This location was also selected prior to sampling to have HE only added to the analytical suite.

JOB SAFETY

	YES	NO
SAFETY MEETING HELD TODAY?	X	
ANY LOST TIME ACCIDENTS? if YES, attach copy of completed report(s), OSHA 200 log, et al		X
TRENCHING/SCAFFOLDING/HIGH VOLTAGE ELECTRICAL/ELEVATED WORK PERFORMED? If YES, include copy of report(s) of inspection(s) performed by competent or qualified person(s)		X
ANY SPILLS OR HAZARDOUS WASTE RELEASED TO THE ENVIRONMENT? if YES, include copy of completed reports indicating response action(s) and notification(s)		X
ANY VIOLATIONS OF JOB SAFETY RULES OBSERVED? if YES, include copy of completed reports indicating response action(s)		X

DISCUSSION OF SAFETY ACTIONS/INSPECTIONS CONDUCTED:

Visitors

NAME	ORGANIZATION
Roy Bohn	TA-21
Dan Sandoval	HSR-5
Beryl Cruz	HSR-5

TESTING AND QUALITY ACTIVITIES PERFORMED None

FIELD SCREENING RANGES

PID = 0.3 ppm to 1.4 ppm.

RAD = Alpha: NDA dpm to 74 dpm; Beta: 224 dpm to 298 dpm.

Background = Alpha – dpm; beta – dpm. (Unavailable, I'll get those for you next week.)

CHANGES None

SAMPLES COLLECTED SWMU 21-013(c): locations #16 thru #22; at depth intervals 0-0.5' and 2.5'-3.0'.

RE21-06-68324 thru 68337 for analytical;

RE21-06-68357 thru 68359 field dups;

RE21-06-68362 rinsate;

RE21-06-68365 trip blank.

INCIDENTS, ACCIDENTS, OR VIOLATIONS OBSERVED None

NON-CONFORMANCES IDENTIFIED None

OTHER REMARKS: Surface sampling at 3rd investigation site SWMU 21-013(c) completed – all samples turned in to SMO.

Sample ID RE21-06- 68292 (location #4a collected on 7/26/06) selected for extended suite analysis and 10-day turn around.

SIGNATURE OF PORTAGE TEAM REPRESENTATIVE	DATE
CJS	7/27/06

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

SAMPLE COLLECTION LC

SAMPLE ID: RE21-06-68292

EVENT ID: 9002

EVENT NAME: DP Site Aggregate Area, 21-013(c) Part 1, Spring 2006

SCL Continued on Next Page

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		07/26/06	EVAL CLASS:	ALLH	OK
TIME COLLECTED (HH:MM):		0946	SAMPLE TECH CODE:	SS	
PRS ID:	PRS: 21-013(c)	OK	FIELD QC TYPE:	NA	
LOCATION ID:	21-25651	Location 4a	COMPOSITE TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH ():	0.00	OK (FT / cm / NA)	SAMPLE USAGE:	INV	
BOTTOM DEPTH ():	~~0.00~~	0.5 (FT / cm / NA)	WATER FLOWING :	YES ___ NO ___ NA ✓	
FIELD MATRIX:	S	OK	SCREEN/PORT DESC (wells only):	NA	
			ER SOP Followed:	6.09	

#	CONTAINER	PRESERVATIVE	ORDER	ANALYTICAL SPECIAL INSTRUCTIONS
1	8 IN RESEALABLE POLY BAG	NONE	RADVANA+B+G	
2	~~5 G ENCORE~~	~~ICE~~	~~8260BENCORE~~ DET	
	~~5 G ENCORE~~	~~ICE~~	~~8260BENCORE~~ DET	
4	250 ML AMBER GLASS	ICE	8270C+8082	
5	125 ML GLASS	ICE	8290	
6	~~125 ML GLASS~~	~~ICE~~	~~8290~~ DET	
7	1 L POLY	NONE	AM241+GS+ISOPU+ISOU+SR90	
8	500 ML POLY	ICE	H3	
9	250 ML AMBER GLASS	ICE	NMED Explosives list	
10	125 ML POLY	NONE	PH	
11	1 L POLY	ICE	TALMET+U+CN+NO3+CLO4	

ADDITIONAL INFORMATION (optional): Special Instructions: Please assign top and bottom depths.

SAMPLE DESC: Brown sandy lloamy soil

SAMPLE LOCATION DESC: 21-25651

Location Description: South central of SWMU, 25ft east of Location 3, Location 4a

FIELD SCREENING/MEASUREMENT RESULTS:

α - 75.6 dpm β - 1465 dpm

PID - 0.5 ppm

COLLECTED BY: (PRINTED NAME) [illegible] (SIGNATURE) [illegible] (DATE) 07/26/06

REVIEWED BY: (PRINTED NAME) Randy Vigil (SIGNATURE) [illegible] (DATE) 7/26/06

Sample ID: RE21-06-68292 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Soil	Lab Sample:	27938-002	Date Received:	3-Aug-06
Project:	5669S	Sample Size:	10.6 g	QC Batch No.:	8253	Date Extracted:	4-Aug-06
Date Collected:	26-Jul-06	%Solids:	95.2	Date Analyzed DB-5:	7-Aug-06	Date Analyzed DB-225:	NA
Time Collected:	0958						

Analyte	Conc. (pg/g)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.0811		
1,2,3,7,8-PeCDD	ND	0.133		
1,2,3,4,7,8-HxCDD	ND		0.185	
1,2,3,6,7,8-HxCDD	0.537			J
1,2,3,7,8,9-HxCDD	0.487			J
1,2,3,4,6,7,8-HpCDD	13.2			
OCDD	112			
2,3,7,8-TCDF	0.256			J
1,2,3,7,8-PeCDF	ND		0.210	
2,3,4,7,8-PeCDF	0.269			J
1,2,3,4,7,8-HxCDF	0.393			J
1,2,3,6,7,8-HxCDF	0.214			J
2,3,4,6,7,8-HxCDF	0.225			J
1,2,3,7,8,9-HxCDF	ND	0.114		
1,2,3,4,6,7,8-HpCDF	2.40			J
1,2,3,4,7,8,9-HpCDF	ND		0.190	
OCDF	5.21			B

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	96.2	40 - 135	
	13C-1,2,3,7,8-PeCDD	91.1	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	94.0	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	93.7	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	108	40 - 135	
	13C-OCDD	84.4	40 - 135	
	13C-2,3,7,8-TCDF	95.9	40 - 135	
	13C-1,2,3,7,8-PeCDF	92.7	40 - 135	
	13C-2,3,4,7,8-PeCDF	91.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	96.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	91.2	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	95.1	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	98.7	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	97.4	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	108	40 - 135	
	13C-OCDF	88.5	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	84.6	40 - 135	

Totals			
Total TCDD	ND	0.0811	
Total PeCDD	ND	0.133	
Total HxCDD	4.39		4.57
Total HpCDD	24.1		
Total TCDF	0.447		
Total PeCDF	2.52		2.73
Total HxCDF	4.42		
Total HpCDF	6.14		6.33

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.619

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (TEF).

Analyst: JMH

Approved By: Martha M. Maier 08-Aug-2006 10:22

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

SAMPLE COLLECTION LOG

SAMPLE ID: RE21-06-68293

EVENT ID: 9002

EVENT NAME: DP Site Aggregate Area, 21-013(c) Part 1, Spring 2006

SCL Continued on Next Page

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		07/26/06	EVAL CLASS:	ALLH	OK
TIME COLLECTED (HH:MM):		0958	SAMPLE TECH CODE:	SS	HA
PRS ID:	PRS: 21-013(c)	OK	FIELD QC TYPE:	NA	OK
LOCATION ID:	21-25651	Location 4b	COMPOSITE TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH ():	~~0.00~~	2.5 (FT / cm / NA)	SAMPLE USAGE:	INV	
BOTTOM DEPTH ():	~~0.00~~	3.0 (FT / cm / NA)	WATER FLOWING :	YES___ NO___ NA ✓	
FIELD MATRIX:	S	OK	SCREEN/PORT DESC (wells only):	NA	
			ER SOP Followed:	6.10	

#	CONTAINER	PRESERVATIVE	ORDER	ANALYTICAL SPECIAL INSTRUCTIONS
1	8 IN RESEALABLE POLY BAG	NONE	RADVANA+B+G	
2	~~5 G ENCORE~~ 25 ml amber	ICE	8260BENCORE	
	~~5 G ENCORE~~	~~ICE~~	~~8260BENCORE~~ AET	
4	250 ML AMBER GLASS	ICE	8270C+8082	
5	125 ML GLASS	ICE	8290	
6	~~125 ML GLASS~~	~~ICE~~	~~8290~~ AET	
7	1 L POLY	NONE	AM241+GS+ISOPU+ISOU+SR90	
8	500 ML POLY	ICE	H3	
9	250 ML AMBER GLASS	ICE	NMED Explosives list	
10	125 ML POLY	NONE	PH	
11	1 L POLY	ICE	TALMET+U+CN+NO3+CLO4	

ADDITIONAL INFORMATION (optional): Special Instructions: Please assign top and bottom depths.

SAMPLE DESC: Brown sandy/loamy soil

SAMPLE LOCATION DESC: 21-25651

Location Description: South central of SWMU, 25ft east of location 3 Location 4b

FIELD SCREENING/MEASUREMENT RESULTS: α - 49.2dpm/NDA β - ~~AT~~ AET 878 dpm
PID - 0.3ppm

COLLECTED BY: (PRINTED NAME) Antoinette E. Torya (SIGNATURE) [signature] (DATE) 07/26/06

REVIEWED BY: (PRINTED NAME) Randy Vigil (SIGNATURE) [signature] (DATE) 7/26/06

Sample ID: RE21-06-68293 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Soil	Lab Sample:	27938-001	Date Received:	3-Aug-06
Project:	5669S	Sample Size:	10.9 g	QC Batch No.:	8253	Date Extracted:	4-Aug-06
Date Collected:	26-Jul-06	%Solids:	93.1	Date Analyzed DB-5:	7-Aug-06	Date Analyzed DB-225:	NA
Time Collected:	0946						

Analyte	Conc. (pg/g)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.0772		
1,2,3,7,8-PeCDD	ND	0.159		
1,2,3,4,7,8-HxCDD	ND	0.472		
1,2,3,6,7,8-HxCDD	ND	0.150		
1,2,3,7,8,9-HxCDD	ND	0.146		
1,2,3,4,6,7,8-HpCDD	1.20			J
OCDD	10.8			
2,3,7,8-TCDF	ND	0.107		
1,2,3,7,8-PeCDF	ND	0.0874		
2,3,4,7,8-PeCDF	ND	0.0803		
1,2,3,4,7,8-HxCDF	0.0754			J
1,2,3,6,7,8-HxCDF	ND	0.0713		
2,3,4,6,7,8-HxCDF	ND	0.0770		
1,2,3,7,8,9-HxCDF	ND	0.104		
1,2,3,4,6,7,8-HpCDF	0.255			J
1,2,3,4,7,8,9-HpCDF	ND	0.148		
OCDF	0.899			J,B

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	86.8	40 - 135	
	13C-1,2,3,7,8-PeCDD	77.9	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	82.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	83.2	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	95.4	40 - 135	
	13C-OCDD	79.8	40 - 135	
	13C-2,3,7,8-TCDF	83.2	40 - 135	
	13C-1,2,3,7,8-PeCDF	78.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	78.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	81.1	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	74.7	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	80.7	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	87.0	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	86.2	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	96.1	40 - 135	
	13C-OCDF	79.4	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	83.1	40 - 135	

Totals			
Total TCDD	ND	0.0772	
Total PeCDD	ND		0.171
Total HxCDD	ND	0.256	
Total HpCDD	2.15		
Total TCDF	ND	0.107	
Total PeCDF	ND	0.0838	
Total HxCDF	0.0754		0.303
Total HpCDF	0.471		

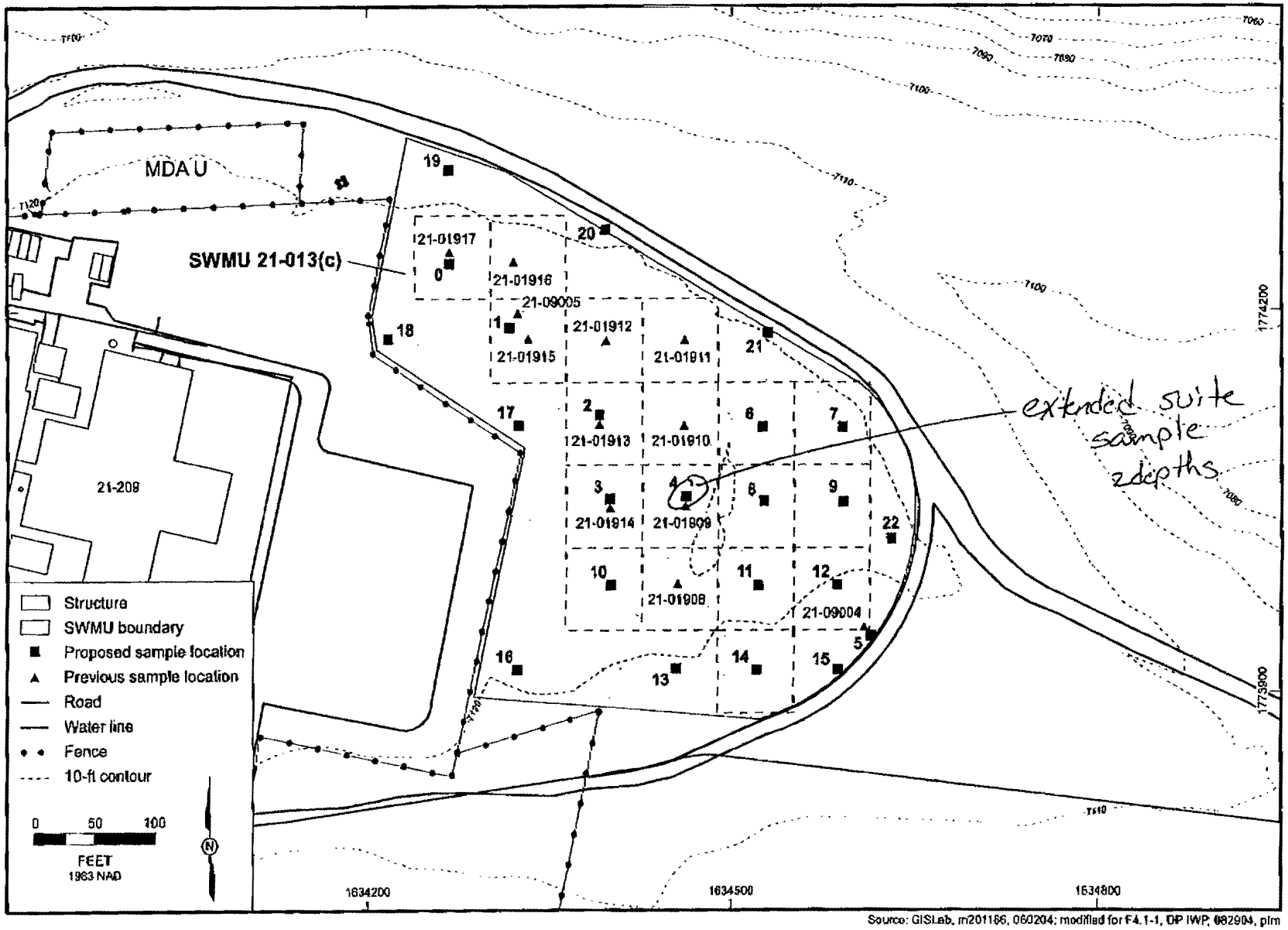
Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0338

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: JMH

Approved By: Martha M. Maier 08-Aug-2006 10:22



Source: GISLab, m201166, 060204; modified for F4.1-1, DP IWP, 082904, plm

Figure 4.1-1. SWMU 21-013(c) proposed sample locations