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DEPARTMENT OF THE AIR FORCE

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CANNON AIR FORCE BASE, NEW MEXICO

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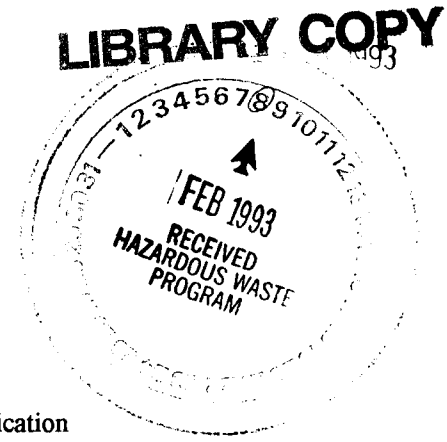


27 FW CC
100 S DL Ingram Blvd Suite 100
Cannon AFB NM 88103-5214

Ms Barbara Hoditschek, Manager
RCRA Permit Program
State of New Mexico Environmental Department
Hazardous & Radioactive Materials Bureau
PO Box 26110
Santa Fe, NM 87502

Re: Notice of Deficiency for Melrose AF Range RCRA Permit Application

Dear Ms Hoditschek

We have contracted with the US Geological Survey (USGS) to satisfy your requirements to identify the following items:

a. Develop the location standards - 100 Year Flood plain. ECD 22 Feb 93.

b. Develop a Sampling and Analysis Plan for the Open Burn/Open Detonation (OB/OD) area.

c. Develop Engineering Report describing how the OB/OD unit was designed, constructed, operated, and maintained. Note that this information must be gleaned from our explosive ordnance personnel, who are experts concerning the safe handling of ordnance. Munition items of various types cannot always be buried (i.e., tamped) under a covering of earth because of personnel safety. Covered ordnance that does not detonate will pose an extreme safety hazard to personnel who must uncover the live munition item or items.

d. The contractor has been tasked to describe the site specific geology at the OB/OD unit as our historical studies do not appear to be sufficient for your requirements.

We cannot provide a copy of the DOD study, "Identification and Characterization of Emissions and Residues from the Open Burning and Open Detonation of Munitions." Per prior conversation between environmental management personnel and your office, the document that was referenced in the Part B application is no longer a valid document and should be removed as a reference.

Our environmental personnel are working with the US Air Staff to obtain an itemized waste explosive list to identify any potential hazardous waste associated with specific ordnance outer casing and the physical net weight explosive as requested. Mr. Olen Sheppard of the US Air Staff will address the concerns of military munition characterization at the National US EPA level. US Air Staff and US EPA will meet on 18 Feb 93 to address Subpart X permits for munition OB/OD facilities. We will keep your office informed concerning this issue.

If you have any questions concerning this subject matter, please contact Mr. Jim Richards at 784-4639 or Ms Vera Wood at 784-2739.

Sincerely

RICHARD N. GODDARD
Brigadier General, USAF
Commander

1 Atch
Response to findings w/16 Atch

cc: HQ ACC CEV

RESPONSE TO FINDINGS

1. **Facility**:

a. Explain who owns the property on which the Melrose Air Force Range is situated:

RESPONSE: The US Air Force owns the property ~~on which~~ the Melrose AF Range is situated. An Environmental Impact Statement was completed on 17 October 1989 by Science Applications International Corporation and reflects that the Melrose Air Force Range expanded from 22,120 acres to 77,120 acres in 1986; this acreage consists of 71,992 acres located in Roosevelt County, New Mexico and 5198 acres located in Curry County, New Mexico. Of the 55,000 acres that were added to the range, 16,040 acres were owned by the state of New Mexico, 48 acres were owned by the Bureau of Land Management, and the remaining 38,912 acres were privately owned.

When the 55,000 acres were added to the Melrose Range, 27,760 acres were purchased outright (23,280 acres privately owned and 4480 acres state owned); by adding the expansion acreage to the original range acreage (22,120) brings the total acreage owned by the US Air Force to 49,880 acres. The 15,680 acres (15,632 acres privately owned, 48 acres publicly owned) were given a restrictive easement, which means that the US Air Force purchased minimal rights with the intent of limiting use of the property to cattle grazing or gas /oil exploration or extraction. In addition, structures are limited to 100 ft in height and to minimal building for cattle grazing, farming, and mineral exploration and extraction activities. The 11,560 acres leased from the state are subleased for grazing wherever possible (Atch 1a, Figure 3.3.5-1 Melrose Bombing Range Boundaries with defined areas for easement and leases restrictions and Atch 1b, Figure 1.2-6. Melrose Range Operations Area).

Most of the land that is in the restrictive easement or the lease land is used for agricultural purpose, primarily cattle grazing. Some crop growing is also accomplished on the range, primarily in the northern section of the Range. In the Bombing Range, the Air Force wants to convert croplands to grasslands for cattle grazing over the next five years. The Air Force is currently working with the state of New Mexico in a land swap for state owned lands in the Bombing Range. Attachment 1a gives a breakdown of agricultural activities in the Melrose AF Range expansion area before the actual expansion to the Range was completed. There is a range support facility near the center of the Bombing Range that houses a fire station, maintenance area, TV camera station for monitoring ordnance practices, and other support facilities. Land surrounding the Range is used for similar agricultural purposes.

b. Provide the location for the Centralized Munitions Depot noted in the Part B application. Explain what is meant by large items that are sent to this depot:

RESPONSE: In Section C of the Permit Application, C.1, second paragraph, second sentence "Larger items, however, are sent to centralized munitions depots for treatment" can be deleted. Larger item as identified by our munitions' experts is anything larger than the items we defined as net wet explosive in our Part B application. Large items (e.g., a Mark 84 Bomb) will be taken to Luke AFB, AZ, Nellis AFB, NV, or Hill AFB, UT, who have the capabilities to support a greater net explosive weight than Melrose Air Force Range (MAFR), New Mexico.

c. Describe the history of open burning and open detonation activity at the Melrose AFR. Include locations of historic sites that are no longer active:

RESPONSE: The Explosive Ordnance Flight personnel verified through available records and knowledge of personnel previously stationed at Cannon AFB, NM to determine that no other known OB/OD sites were used for OB/OD at Melrose Air Force Range prior to the current OB/OD. Personnel

performed small amounts open burn in a 4'X4'X4' steel container placed in the center of the OB/OD area since the area was established in the early 1980s or before. In addition, during the establishment of the OB/OD open detonations were performed outside the container on the soil.

Explosive Ordnance Flight personnel are actively seeking more suitable means for the current burn method in use. Due to the minimum amount of open burns conducted at the OB/OD site at Melrose Air Force Range the payback per annual burns must be cost effective.

d. Show on the Melrose AFR map, locations of all wells up to the distance away from the OB/OD unit that includes the potable water well some 1,200 feet north. Provide all known information about the geology, water quality and water quantity.

RESPONSE: Information was faxed to your office on 4 Dec 92 and is included in this response for part of the administrative record. The potable water well is not 1,200 feet north of the OB/OD unit; but located approximately one mile from the maintenance compound and north of Tower one (1). The potable water well is the only one that services Melrose AFR maintenance compound and fire station. The well is approximately 185 feet deep and pumps approximately 11.2 gallons of water per minute (gpm). The well accommodates a 25,000 gallon fiberglass holding tank located approximately 100 feet south of the maintenance area. The fiberglass holding tank accommodates the maintenance area and the fire department pumping station for emergency situations. The Water Plant personnel at Cannon maintain records for this well and it is internally tracked as well number ten (10).

There is no permanent surface water on the range. The Llano Estacado (30,000 square miles) encompasses the agricultural community in Eastern New Mexico and West Texas and is the largest uninterrupted area of semi-arid climate in North America. The Ogallala Formation, an underground aquifer, supplies water for irrigation in this area. Most authorities consider the Ogallala Formation and the Portales Valley Fill, which underlies the Melrose Range, as a single hydrologic unit. The two underground basins that are a part of the Ogallala Aquifer extending into the boundaries of the proposed Melrose Range (outside the current Impact Area) are the Fort Sumner Basin and the Portales Basin. A representative of the New Mexico State Engineer's Office indicates these are the only designated or declared aquifer basins extending into the proposed expanded range. (Declared basins are designated by the State Engineer for the purpose of insuring orderly development of the water resources.) A portion of the Fort Sumner Basin comprises approximately four square miles and the Portales Basin approximately 30 square miles of the proposed expansion. Reference Atch 2, Figure seven (7) extracted from the State Engineer's vested water rights map showing the location of 36 irrigation and livestock wells licensed by the State Engineer. The OB/OD unit at the Melrose AFR impact area is shown at Atch 3. Enclosed for your reference is a list location and the owners of known water wells (Appendix C, Water Wells as extracted from the 1985 Environmental Impact Analysis Process and is listed as Atch 4 for your review).

The natural recharge to the aquifer system is insignificant in relation to the total draw down in the region. In 1968 the State Engineer estimated that annual withdrawal was five times greater than recharge. The Portales area showed a decline of as much as 50 feet between 1932 and 1960. The New Mexico State Engineer Basic Data Report, "Ground Water Levels in New Mexico, 1976" by J.D. Hudson, and supplied by the US Geological Service, Water Resources Division, Albuquerque, indicates that the average annual drop in the ground water table in the five years preceeding 1977 was approximately 2.50 feet.

Attachment 4 (Irrigation Well Locations/Figure 7 Ogallala Aquifer Basins) shows the location of 36 irrigation and livestock wells licensed by the State Engineer. There is no requirement for a license for wells located outside declared basins. Wells within a declared basin must be licensed and drilled by a state licensed driller. If water rights are not licensed available for land purchased in a declared basin, a well may be drilled by a licensed driller, but annual capacities are restricted to 3 acre feet of water to supply one (1) house, trees, and grass and garden on one (1) acre of land. During the preparation of the

Draft Environmental Impact Statement (DEIS) and through the public comment process a total of 47 wells of various sizes and location has been identified within the proposed expanded range; two have unknown owners.

Attachment 5 reflects the Water Systems outside the Melrose AFR Impact Area.

Attachment 6 reflects the leased lands outside the Melrose AFR Impact Area.

Attachment 7 reflects the restricted area and the Air Force boundaries.

e. Confirm that the water well intended for fighting any fires at the Melrose AFR is the same as the potable water well some 1,200 feet north of the OB/OD. If it is not the same, delineate the location of each on the Melrose Air Force Range.

RESPONSE: This item is explained above as well as in attachment 8 that includes well data as received from the New Mexico State Engineers. The location of the well is north of tower one (1), **not** some 1,200 feet north of the OB/OD site.

f. Describe how waste explosives are identified and collected from the AFR once they are considered waste explosives.

RESPONSE: Explosive Ordnance Flight furnished a copy of Cannon Air Force Base Regulation 136-18 that addressed their operating instructions to identify and clear explosives from the live (active) range, see Atch 9.

NOTE: Explosive Ordnance Flight is primarily responsible for the active portion of the Melrose AF Range and only the physical treatment portion at the Open Burn and Open Detonation due to their expertise. Munition personnel are responsible for the expired shelf life (unserviceable) items treated at Melrose AF Range in the Open Burn and Open Detonation unit. The active portion of the range is a normal process and is not required to be permitted.

g. Itemize all waste explosives, dates and quantities that have been burnt or detonated at the unit since 1980 when the unit fell under RCRA requirements.

RESPONSE: DOD records are generally not retained longer than three years unless the records are specifically given a disposition to be forward to a Records Holding Area. The three year retention of records also complies with 40 CFR 263.22 and part 265 regarding manifesting, training, inspections, etc. The **Listing of Materials Log** found on the reverse side of the Explosive Ordnance Disposal Thermal Treatment Facility Inspection Log is at Atch 11.

2. **Hydrology**:

a. For the first aquifer immediately below the open detonation and open burn unit, describe the ground water flow direction the hydraulic gradient, the vertical position and the rate of flow. Keep in mind that the first water encountered through drilling may be present above the Ogalla Formation. If this is the case and the first water communicates with the Ogallala, specific information on the Ogalla may also need to be addressed.

RESPONSE: Environmental Management worked with the State Engineers to obtain additional information for the OB/OD. The information forwarded to your office was not found acceptable; therefore, we have requested that US Geological Survey provide this data through contract.

The Melrose AFR Environmental Impact Statement shows that permanent surface water is not present within the study area. "Permanent" lakes were present during pluvial periods of the Pleistocene, evidenced by extensive lacustrine sediments in northern portions of the study area [Class II Survey and Testing of Cultural Resources at the Melrose Air Force Range, Curry and Roosevelt Counties, New Mexico, US Army Corps of Engineers, Albuquerque District, 1988]. Declining water tables during the Holocene led to the dessicantion of these lakes, and today small, ephemeral lakes form in playa basins both within the valley (e.g., Section 26 and 27, T2N, R30E) and on the Ogallala surface (e.g., Section 18, T1S, R30E) after heavy rainfall.

The water table in the area is dropping rapidly as a result of ground water usage from irrigation. Pleistocene lakes undoubtedly reflected the intersection of water table and land surface, but there is no evidence of similarly high water tables during the Holocene. There are no springs in the study area, although several small springs were historically active at Little Tule Lake (SW 1/4, Section 33, T2N, R31E) and at Tule Lake (SE 1/4, Section 34, T2N, R31E). In addition, a spring in Fiddler Draw (NE 1/4 Section 13, T2N, R31E), approximately five miles east of the study area still provides water.

15 JAN 93 UPDATE: Reference section 2.0 Summary of Existing Information in the USAF Environmental Work Plan and Sampling and Analysis Plan, Open Burn/Open Detonation Thermal Treatment Facility provided by our contractor US Geological Survey for further information.

b. Describe site specific geology down to and including the Ogallala formation as determined from borings.

RESPONSE: Barring inclement weather and approval from your office for the Sample and Analysis Plan, US Geological Survey will begin the site specific baseline investigation and boring in February 1993 and their reports completed no later than the last day of March 1993. We are requesting an extension until 15 April 1993 to adequately address our site specific baseline study. If the baseline study proves through sample and analysis results that migration of hazardous waste constituents is not detected in the OB/OD in accordance with the approved Sample and Analysis Plan, we should not have to expend unnecessary tax payer dollars to require the contractor to drill to the Ogallala formation.

3. **Environmental Standards**:

a. Submit a copy of the DOD study, "Identification and Characterization of Emissions and Residues from the Open Burning and Open Detonation of Munitions" Cite the specific area of the report that demonstrates that complete combustion occurs for all energetic materials during OB/OD treatment and that OB/OD treatment is environmentally sound.

RESPONSE: Telephone conversations with Mr. Bret Johnson, HQ ACC CEVP, the "Identification and Characterization of Emissions and Residues from the Open Burn and Open Detonation of Munitions" do not address emissions from the OB/OD of Munitions to satisfy most EPA Regions. Region IX has defined emissions on certain munition items and there will be testing on four types of ordnance to satisfy their requirements. Mr. Johnson further suggested permission to discuss the issue with the NMED permit section (Mr. Tom Tatkin) in order to obtain required information Region VI would like in addressing the requirements for this permit.

UPDATE: Senior level personnel at HQ ACC LGW (munition supply personnel) are working to obtain additional information from the manufacturer and US Army Armament Munitions and Chemical Command for response to this concern. ECD 12-31-93.

b. Describe how it was determined that, "The amount of waste which could be released to the environment is not enough to have an adverse effect outside the OB/OD area." (Section E.2.k.)

Senior level personnel at HQ ACC LGW are working to obtain additional information from manufacturers and the US Army Armament Munitions and Chemical Command for this response. ECD 12-31-93.

c. Describe the potential for emission and dispersal of gasses and dispersal of hazardous waste constituents into the air, soil and ground water.

Senior level personnel at HQ ACC LGW are working to obtain additional information from manufacturers and the US Army Armament Munitions and Chemical Command for this response ECD 12-31-93.

d. Describe the potential for deposition or migration of hazardous constituents into the food chain or other vegetation.

RESPONSE: Senior level personnel at HQ ACC LGW are working to obtain additional information from manufacturers and the US Army Armament Munitions and Chemical Command for this response. ECD 12-31-93.

e. Describe the annual cyclical pattern for precipitation in the Curry-Roosevelt county's region. Include in the discussion the frequency and persistence of temperature inversions.

RESPONSE: The general climate for this area is semiarid. The area undergoes the basic climatic trend of four seasons. The downslope warming of air from the mountains tends to modify and temper the air masses which pass over this area from the west and northwest. Winds with a northwesterly component blow downslope and enhance atmospheric ventilation. Winds with a component from the south and east blow upslope and lead to increased cloud formation and precipitation.

Average monthly temperatures range from the mid-30s in January to the upper 70s in July. Maximum daytime temperatures in the summer months can reach 90 degrees Fahrenheit or warmer. Hot days, registering 100 degrees or more, occur only occasionally in the summer months. Minimum temperatures range from the low 20s in January to the mid 60s in July. The highest recorded temperature is 106 degrees Fahrenheit and the lowest temperature on record is 11 degrees Fahrenheit.

Wind speed, frequency, and direction are important to air emission analysis. Winds in the Melrose AFR area are often gusty and can average 19 mph or greater. On the basis of a 10 year period, the prevailing surface wind direction at the AFR is from the west. These west winds occur primarily from October to May (i.e., 8 months). In the warmer months, the winds tend to be from the south. The annual mean wind speed is approximately 7 knots (8 mph). Monthly wind averages range from 5 knots (6 mph) to 9 knots (10 mph). The maximum recorded wind gust is 73 knots (84 mph).

Another variable need for air quality assessment is atmospheric mixing. The atmosphere is quite dispersive around this area. The seasonal and annual average mixing heights can vary from 400 meters in the morning to 4000 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.

Occasional winter snows result in this area from the upslope movement of moist air from the Gulf of Mexico. Over a 36 year period, the annual snowfall amounts of 20 inches or more have been recorded several times in this region. The record snowfall for the area is 19 inches. The annual snowfall for the New Mexico region is about 10 to 13 inches. Snow can occur as early as October and as late as May.

As recorded at Cannon AFB, NM, the average annual rainfall in the area is 15.2 inches, the majority of which occurs in the summer months. Most of the precipitation for this region comes from sudden thundershowers, which form over the mountains and traverse the area. Thunderstorms occur on approximately 47-50 days each year. Individual monthly averages vary from 0.4 inches in the winter months to 2.5 to 2.7 inches in July and August. The maximum monthly rainfall of 11.4 inches occurs in July. The maximum daily rainfall is 4.8 inches.

f. Wind Rose information: ECD to NMED 4 DEC 92.

RESPONSE: This information was faxed to NMED on 2 DEC 92: Change Wind Roses to Wind Rose at Figure B-3. To clarify how to read the Wind Rose in layman terms; wind is measured from the direction it is coming from and blowing toward. The wind rose is a full circle (360 degrees) and has four cardinal points north, east, south and west, reflecting 90 degrees at each quarter and can be further subdivided by dividing the current section by one-half (e.g., 90 degrees divided by two equals 45 degrees, 45 degrees divided by two equals 22 1/2 or 23 degrees, etc. The top of the wind rose is "N" north, then "NNE" north-north-east, "NE" north-east, "ENE" east-north-east, "E" east and so forth around the circle). For example, if one needs to find out how many knots the wind is blowing from the NNW and how often this wind direction will occur: View the top and left side of the Wind Rose to find NNW, now move to the inner most circles at north showing the figures 27 and 21. At this point we can see instrument recording winds from NNW between 27 and 21 knots occurs 1% of the time. Winds registered at 10 knots or less (from any direction) occur 64.3% of the time, as reflected in the most inner circle.

Explosive Ordnance personnel check with Weather personnel to ensure winds register below 15 knots, in accordance with Technical Order (TO) number 11A-1-42, prior to treatment at the OB/OD.

g. The soil geology around the OB/OD:

RESPONSE: Soil at the Melrose AFR OB/OD Area as faxed on 2 DEC 92 is provided again for your review. Olton loam, 0-1 percent slope (Ot). This soil occurs in the wheat-growing section of the county in the vicinity of Rogers and Dora. It is not extensive. The surface layers consist of about four (4) inches of brown to dark-brown loam. It has strong granular structure and is noncalcareous. The subsoil is noncalcareous clay loam. It is about 24 inches thick and has subangular blocky structure (Atch 12). This layer overlies a strongly calcareous layer that is up to 20 inches thick, light reddish brown in color, and massive. The substratum is very strongly calcareous pin silt loam. It is similar to the present sediment of the Amarillo soils. Runoff is moderate, and internal drainage is slow. Puddling is common following a hard rain. Wind erosion is a slight or moderate hazard, see Atch 12.

15 JAN 93 UPDATE: US Geological Survey has provided information concerning soils at 2.1.3., page 7, Atch 16, in the Summary of Existing Information portion of the Work Plan and Sample and Analysis Plan for Open Burn/Open Detonation Thermal Treatment Facility at Melrose AFR, NM, January 1993.

4. Waste Analysis:

a. Provide a glossary of military terms that defines all waste listed in Table C-1 of the Part B application and describes any other explosive devices that may be treated at the OB/OD unit. Include physical and chemical aspects. Not only is it environmentally significant to know the make-up of the reactive component of the waste, but the non reactive component as well.

RESPONSE: Senior level personnel at HQ ACC LGW are working to obtain additional information from manufacturers and the US Army Armament Munitions and Chemical Command for this response.

b. Verify that the intended use of the OB/OD unit is for treatment of conventional explosives and related hazardous waste in the categories of smokeless powders, solid propellants, typical high explosives, initiating explosives, typical incendiaries, pyrotechnic explosives, and atypical waste munitions (.50 Caliber or smaller).

RESPONSE: Yes, the intended use of the OB/OD unit is for treatment of conventional explosives and related hazardous waste categories of smokeless powders, solid propellants, typical high explosives, initiating explosives, typical incendiaries, pyrotechnic explosives, and typical waste munitions at .50 caliber or smaller.

c. Describe the composition, explosive and inert, of the following devices. List metallic constituents if the inert portions of the device are to be treated in the OB/OD unit.

1. **Practice Bombs**
2. **Inert full-scale bombs**
3. **Inert 2.75 inch rockets**
4. **Target practice gum ammunition**
5. **50 caliber and smaller, live ammunition**

RESPONSE: Senior level personnel at HQ ACC LGW are working to obtain additional information from manufacturers and the US Army Armament Munitions and Chemical Command for this response.

NOTE: Explosive ordnance personnel verified that 2.75 inch rockets were used at one time on the active portion of the Melrose AF Range, but not treated in the OB/OD unit. The inert 2.75 inch rockets may be deleted from the Part A and B submission.

d. Itemize all liquid fuels that are used during open burning and provide written assurance that fuels are in no way contaminated or unusable for their originally intended purposes.

RESPONSE: Unused diesel fuel (DF2) is the only fuel used for open burning. Open burn is not the standard method of treatment and has been seldom used per our Explosive Ordnance personnel

e. Provide criteria, time intervals and other trigger mechanisms for which waste streams will be re-evaluated.

RESPONSE: A baseline sample and analysis will be performed at the OB/OD, and quarterly after each detonation, provided that there is OB/OD action in the quarter. Provided that contamination levels are not migrating to the 20 foot level of testing, we propose to perform annual sample and analysis in accordance with the Sample and Analysis Plan.

f. Explain how the sampling grid used for previous events was situated on the ground relative to the OB/OD unit.

RESPONSE: Soil samples were taken by Bioenvironmental Engineers OB/OD unit as directed by the explosive ordnance personnel. The previous samples were not performed in accordance with a sampling grid; a situation which is being correct by contracting out the new Sample and Analysis Plan.

g. Describe how soil samples were collected and composited.

RESPONSE: Soil samples were collected by Bioenvironmental Engineers in the open burn container using the split spoon method. The previous inadequate methods have been corrected by detailing guidance as written in our new Sampling and Analysis Plan developed by US Geological Survey.

h. Provide all soil sampling chemical analysis to date, including lavatory quality assurance and quality control documentation.

RESPONSE: The Bioenvironmental personnel keep logs of the soil sampling going off base; however, they do not have a copy of the Armstrong Laboratory quality assurance and quality control documentation that is kept at the lab. The hospital does not have the appropriate testing equipment nor the expertise to perform testing at Melrose AF Range to satisfy your request;therefore, we have contracted this portion to US Geological Survey. The soil sampling chemical analysis performed by Bioenvironmental at Cannon AFB, NM is at Atch 13.

i. The Part B application states that explosive devices will sometimes be treated in their original shipping cases. These cases are considered solid waste, and shall be analyzed by TCLP protocol to determine whether or not they contain hazardous constituents. Explain how this will be accomplished.

The only explosive device that will be treated in its container is crystallized nitro-glycerin in based dynamite. The container is a wooden box that may or may not have been treated with PCB. PCB treated containers are easily identified and will be identified verified, and documented by munitions personnel. If the container has been PCP treated, the remaining fragments if any, will be placed in a labeled metal drum by explosive ordnance personnel. Bioenvironmental will be contacted to perform sample analysis testing for PCB and TCLP characterization to determine if the residue will have to be disposed of through the Defense Reutilization and Marketing Office (DRMO).

5. Inspections: ECD 30 Nov 92.

a. Describe in detail all responsibilities assigned to the AFR management contractor, Arcata.

RESPONSE as faxed to NMED on 30 NOV 92: Remove all reference to Arcata and substitute with current contractor as the contractor may change from year to year depending on our contract award. The current contractor for Melrose AFR is Westar. Per conversation with our contracting personnel, modifying terms of the contract is very costly and cannot be considered until the contract renewal, additional requirements must be assigned to the Operations Group personnel. The contractor is in charge of operations and maintenance of Melrose AFR. The attachments listed as TE1-7 through TE 1-10, Performance Requirements Summary, is a list of duties for Melrose AFR contractor in accordance with our contract, see Atch 14.

b. Items to be inspected are included in Figure F-1 of the Part B application. It is stated that these items will be inspected before each treatment session. Certain items must be inspected more regularly, such as maintenance of berms, signs and fencing. The presence of standing water in the OB/OD unit may have to be checked for and evacuated after each rain storm. Provide a more comprehensive inspection list than the one in Figure F-1.

RESPONSE: A more comprehensive inspection list than the one listed in Figure F-1 was provided to you by fax for your review. Explosive Ordnance personnel will inspect in accordance with Figure F-1 prior to ordnance treatment. The new weekly inspection log is listed as F-3a through F-3j. The Operation Group personnel (27 OSS/OSTW) handling the contract quality assurance evaluator (QAE) duties will be assigned to perform and maintain the revised inspection forms to ensure contract compliance. The new inspection log will be annotated as non-applicable (N/A) for items that are not currently applicable to the Thermal Treatment Facility. The detailed inspection log covers items more extensive than the treatment facility needs at the present; however, the list may be applicable to future inspection requirements. The inspection list is at Atch 15.

All soil, ash, or debris identified as a hazardous waste that cannot be recycled or remedied will be transported to the Defense Reutilization and Marketing Office (DRMO) for proper disposal. The Part B Operating Permit for Cannon AFB, NM will be verified and updated to receive any inert hazardous waste from Melrose AF Range.

During the time the OB/OD is not in use, a parachute or parachute like material will be placed over the area to prevent standing water in the OB/OD. The Operation Group personnel will annotate discrepancies and corrective actions taken on the weekly inspection log.

c. Explain what group performs inspections, what group responds to noted deficiencies and how the reporting process works to initiate response.

RESPONSE: The Operations Group personnel QAE (27 OSS/OSTW) perform contract inspections for Melrose AFR to ensure all terms of the contract and environmental concerns meet regulatory compliance. The QAE files appropriate forms with contracting personnel in order that resolutions to any findings are accomplished in a timely manner. The Environmental Flight is consulted or notified by telephone or through meetings concerning environmental compliance matters. Environmental Management will perform quarterly inspections at Melrose AFR to ensure compliance within RCRA regulations.

6. Safety and Special Handling: ECD 4 DEC 92 as faxed to NMED on 2 DEC 92:

a. It is discussed in the Part B application that waste explosives may be handled with bale hooks and explosive cases repaired with nails. Explain if these handling and repair items will be made of non-sparking materials such as copper or brass, and if not discuss why they are not.

RESPONSE: The above reference is obsolete and should be deleted as worded in the Part A and B Permit. The explosives are not handled with bale hooks at Cannon AFB nor Melrose AF Range, NM. The explosive cases are not repaired by munition or explosive ordnance personnel. All cases will be reused and unusable cases will be inspected and turned into the Defense Reutilization and Marketing Office (DRMO) for proper disposal. All personnel use non-sparking materials such as copper or brass when working with hazardous waste.

b. It is stated in the Part B application that smoking will not be permitted within a distance from explosives that is not safe. Specify what the safe distance is for the types of explosives specific to the Cannon AFB and the Melrose AFR.

RESPONSE: In accordance with Air Force (AF) Regulation 127-100, no smoking will be allowed within 50 feet of all types of explosives.

c. Provide an explanation for determining a safe distance to be maintained by EOD personnel during treatment. Include in the discussion any kind of shielding that is used to protect against flying debris (Part B, Appendix F-1, 1-9).

RESPONSE: The minimum safe distance for fragmenting explosive is 2,500 feet, for bombs and projectiles over 5 inches long, 4,000 feet. On the basis of the knowledge of the maximum fragment and debris thrown on the range and the type of explosives being treated, to reduce the hazard of fragments and debris, a pit should be used. The pit will be a minimum of 1.22 m (4 feet) deep.

d. Describe how "treatment action" for safe, expeditious and cost effectiveness has been defined for the Melrose AFR, and explain how compatible characteristics are determined (Part B, Appendix F-1), (1-11).

RESPONSE: The US Government Ordnance experts developed studies and guidelines for personnel in Explosive Ordnance and Munitions to follow; based on the studies each individual ordnance has a guideline and checklist to follow with appropriate disposition instructions (e.g., repair, expired shelf life item, etc.).

e. Explain what is meant by bulk explosives, and why mixing of bulk explosives will not be permitted

RESPONSE: Bulk explosives are those not encased within a container, shell, projectile, bomb body or other mechanism. An example is the military use of C-4 blasting that includes the civilian equivalents of TNT and the black powder used in musket-loading rifles. Explosive Ordnance Flight must comply with internal regulations concerning the type of explosives placed together.

f. Confirm that the explosive limit for the OD trench is 100 pounds (p. D-1) during any one detonation. Provide additional commentary if necessary to clarify this amount, such as, "This weight does not include the inert portion of the item." (1-12)

RESPONSE: Explosive Ordnance personnel requested that we revise Melrose AFR Part A and Part B permits to reflect an increase from 100 to 2,000 pounds total net explosive weight (NEW). This will enable Melrose AF Range to support other military installations without operating permits for Thermal Treatment of specific ordnance as outlined in our permit. Munitions personnel are responsible for calculating the total net explosive weight for manifesting and tracking ordnance; however, this weight does not include the inert portion of the ordnance. Net explosive weight (NEW) is the total weight in pounds of the explosive material contained within a munitions item. The fins, projectile casing, suspension lugs and other items are not counted in NEW. The Mk-82, a 500 pound bomb that is used on active bombing ranges, contains 182 pounds of explosive, the remainder weight is inert material and the NEW is pounds.

Revision to the Part A and B will be modified to reflect the change from 100 NEW to 2,000 pounds total NEW requirement. Environmental Flight verbally requested necessary forms to update the Part A and B permits. We are formally requesting your assistance with obtaining EPA Form 3510-1 and EPA Form 3510-3 (five parts) to update the status for our Part A and Part B permits. Your timely response to this request is appreciated.

g. It is stated in Appendix F-1, Item 1-13 that disposals of munitions by open burn and open detonation involve the release of toxic fumes. The control of these fumes is to be determined after assessment of each particular ordnance item is completed. Explain how this assessment is performed for the Melrose AFR OB/OD unit.

RESPONSE: DOD provides Technical Order (TO) guiding Explosive Ordnance Flight in how to perform their duties; however, they have not been provided this data as we are not a research lab. Senior level personnel at HQ ACC LGW are working to obtain additional information from manufacturers and the US Army Armament Munitions and Chemical Command for this response.

h. Explain why the uses of concrete pads are not permissible for open detonation (1-21).

RESPONSE: The concrete pad would become debris during detonation.

i. Describe the location and features of the holding area for waste explosives delivered to the OB/OD unit (1-22).

RESPONSE: Melrose Air Force Range does not have a munition holding area on site. Munition items are stored at Cannon Air Force Base in a highly secured facility. Prior to ordnance treatment, the items are manifested and transported to the physical site of the OB/OD.

j. Describe where tools, safety equipment and safety clothing are stored relative to the OB/OD unit (1-23).

RESPONSE: All tools, safety equipment and personnel protective equipment are stored at Cannon AFB. Prior to a thermal treatment at Melrose AFR the necessary non-sparking tools and equipment are loaded on a truck and transported to the OB/OD area. The Melrose AFR firefighters are equipped to respond to emergency situations during OB/OD treatment.

k. Describe the safety training program that is required for all EOD personnel.

RESPONSE: All EOD personnel receive 22 weeks of specialized explosive ordnance training. In addition, annually personnel also receive a two hour Safety Training course in accordance with AFR 127-100.

7. **Contingency Plan**: Support is provided through a joint community agreement for Contingency and Disaster Preparedness. A site specific Contingency Plan will be developed after the constituents are identified in the munition items; however, note that we will be dealing with reactive solid not a free flowing liquid waste stream(s).

8. Storage and Disposal of Treated Waste

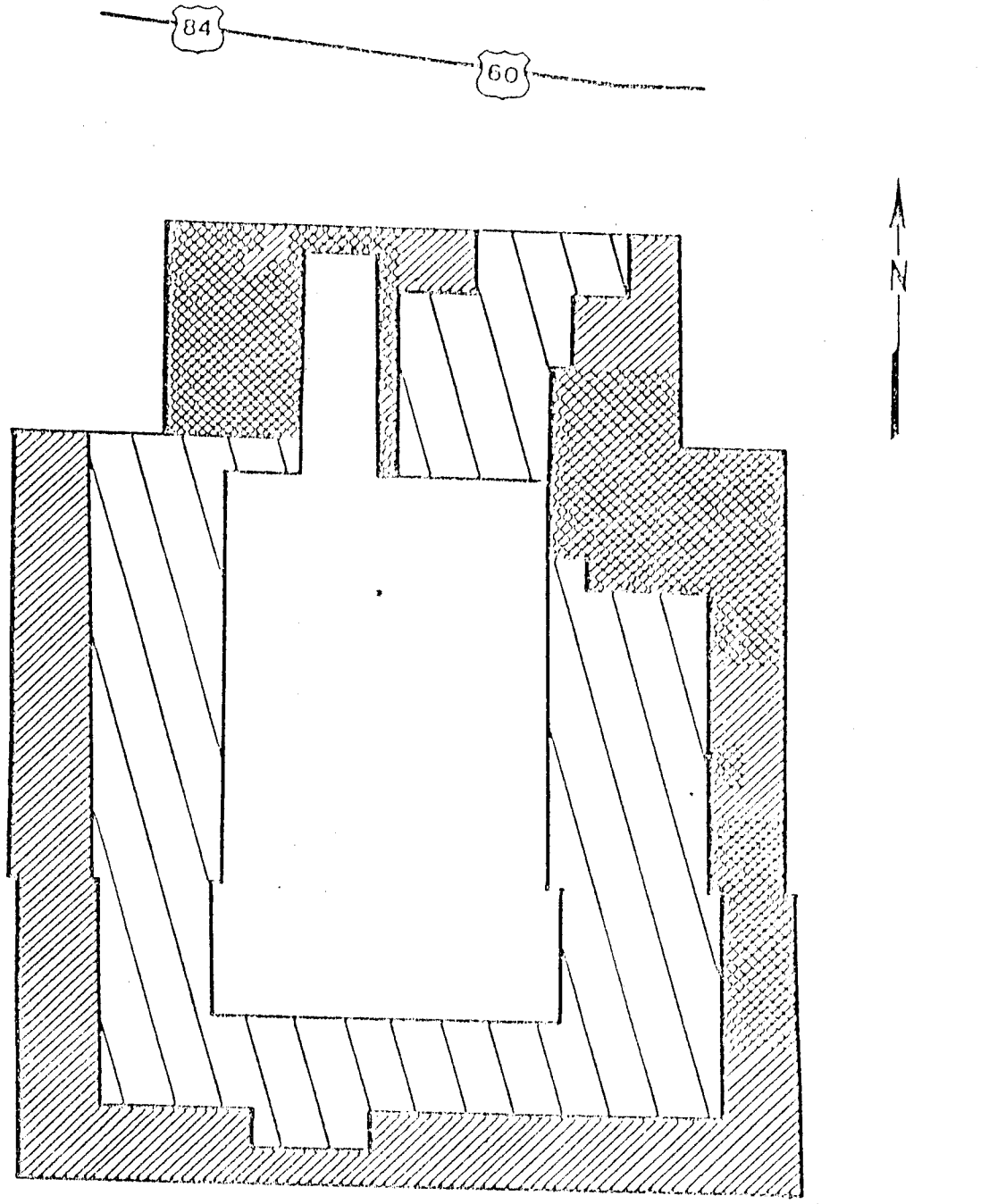
Explain how and when treated waste that does not meet regulatory standard is removed from the OB/OD. Even when the reactive portion of the waste is eliminated, there may still be other RCRA waste remaining (e.g., TCLP metal in ash or soils).

RESPONSE: The explosives are primarily a treatment process that typically results in by-products that are no longer reactive, and therefore, are not considered hazardous unless a constituent is identified as a Toxic Characteristic Leaching Waste or a listed waste. All reusable solid waste material is being turned over to the contract personnel for reuse. Expended ordnance metal casings are being collected for recycling purposes to prevent solid waste.

The Sample and Analysis Plan prepared by US Geological Survey is at Atch 16.

16 Atch
1. MAFR Maps
2. MAFR Nonimpact Well Locations
3. MAFR Impact Zone
4. Water Well Owners as of 1985
5. MAFR Impact Area Water System
6. MAFR Lessee Identification
7. MAFR Impact and Restricted Areas
8. MAFR Impact Well Information
9. CAFR Regulation 136-18
10. Flood Plain Map
11. EOD Inspection and Treatment Logs
12. Profile of Olton Loam
13. OB/OD Sample and Analysis Results

14. MAFR Contract Performance Summary
15. MAFR OB/OD Weekly Inspection Log
16. MAFR Work - Sample Analysis Plans



Source. Department of the Air Force
Tactical Air Command,. 1985

Figure 3.3.5-1. Melrose Bombing Range Boundaries
(With Defined Areas for Easement and Lease Restrictions)

ATCH 1a

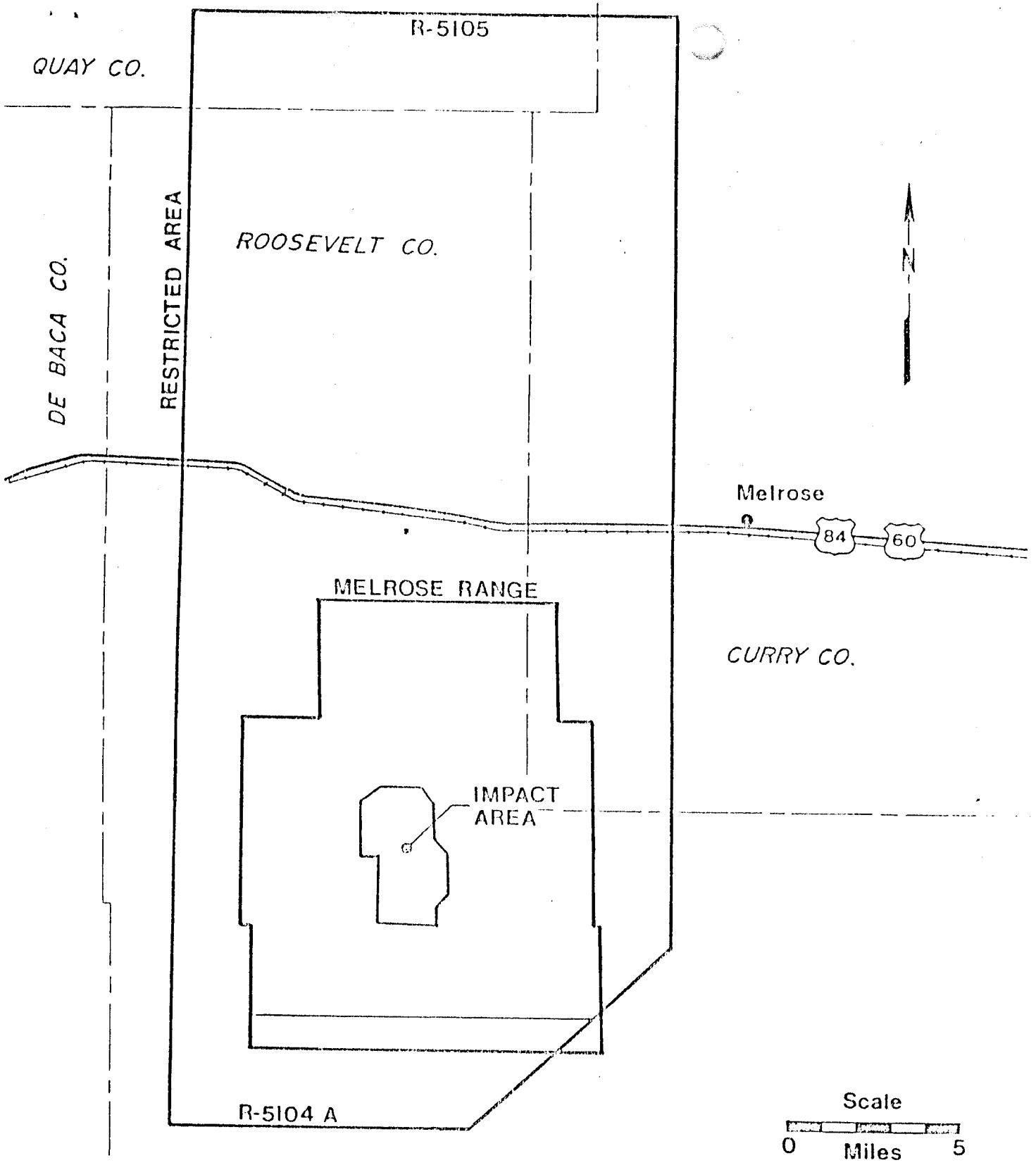


Figure 1.2-6. Melrose Range Operations Area

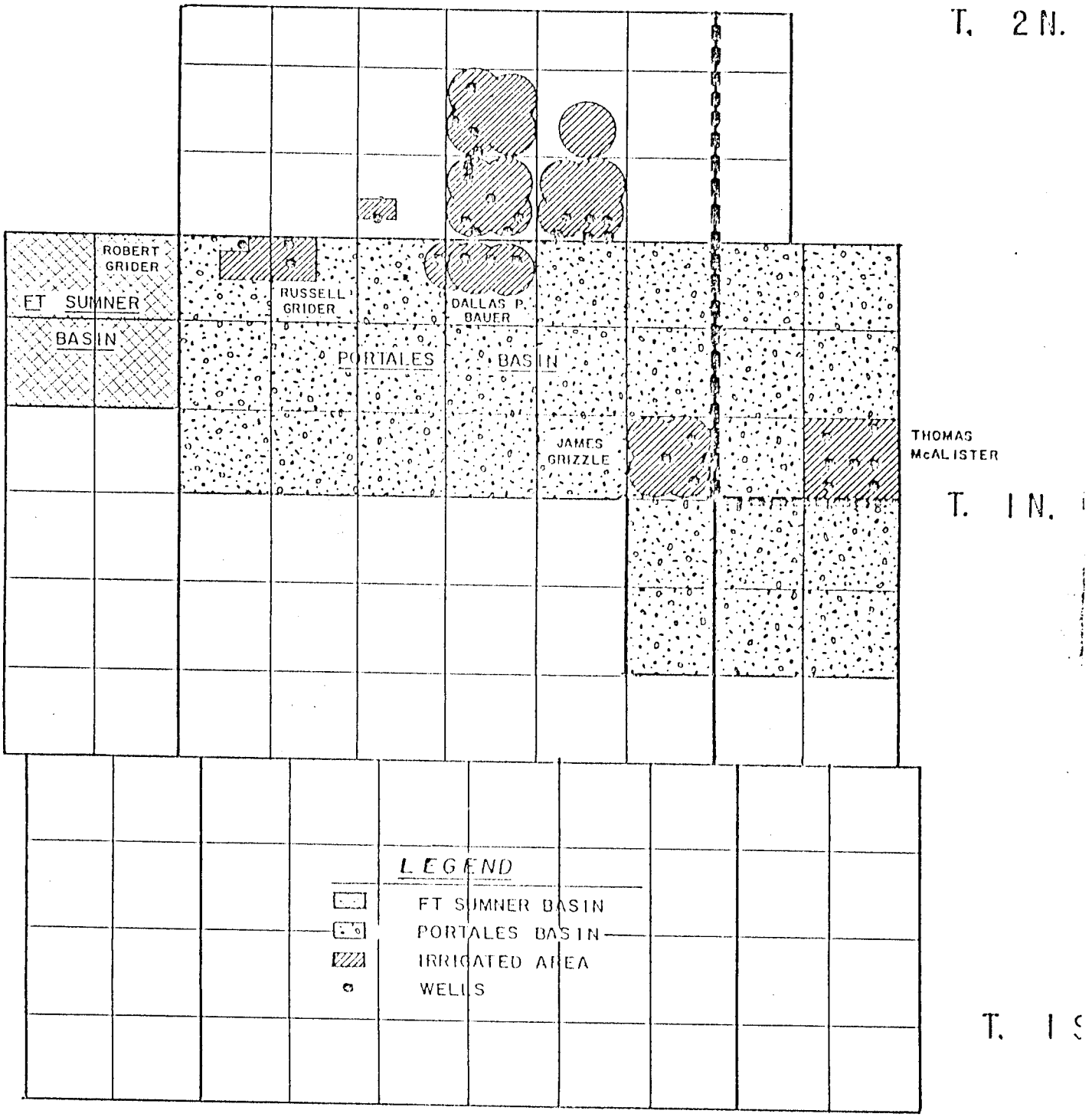
ATCH 16

WELL LOCATIONS — IRR.

PROPOSED MELROSE RANGE EXPANSION

1979

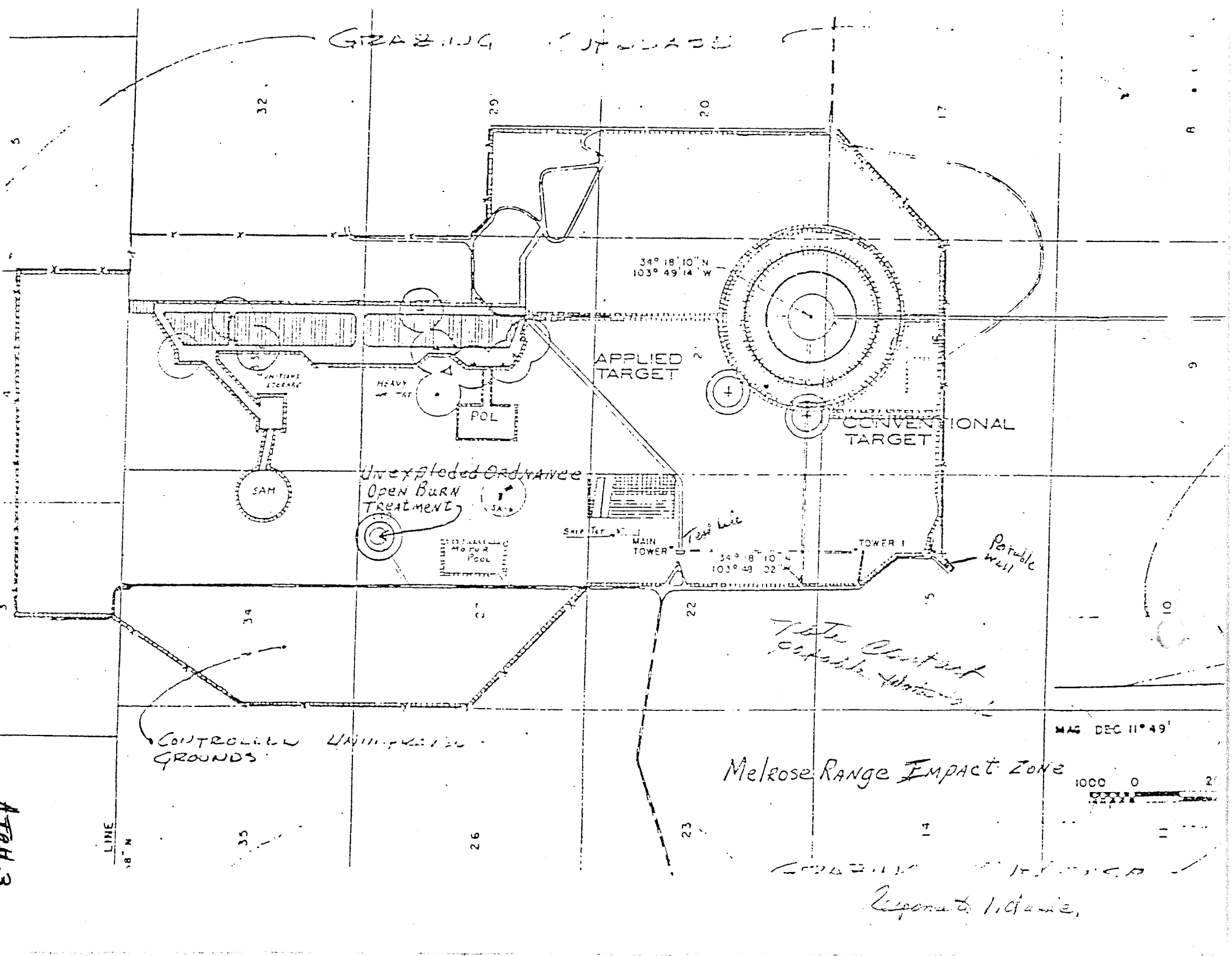
SCALE: 1" = 1.75 MILES = 1.52 N.M.



EXTRACTED FROM STATE ENGINEER'S VESTED WATER RIGHTS MAP

FIGURE 7 OGALLALA AQUIFER BASINS

AFH 2


GRAZING
34° 18' 10" N
103° 49' 14" W
APPLIED
TARGET
CONVENTIONAL
TARGET
POL
SAM
Unexploded Ordnance
Open Burn
Treatment
MAIN
TOWER
TOWER 1
Petrolic
Well
MAG DEC 11° 49'
Melrose Range Impact Zone
1000 0
CONTROLLED
GROUNDS
LINE

APPENDIX C
WATER WELLS

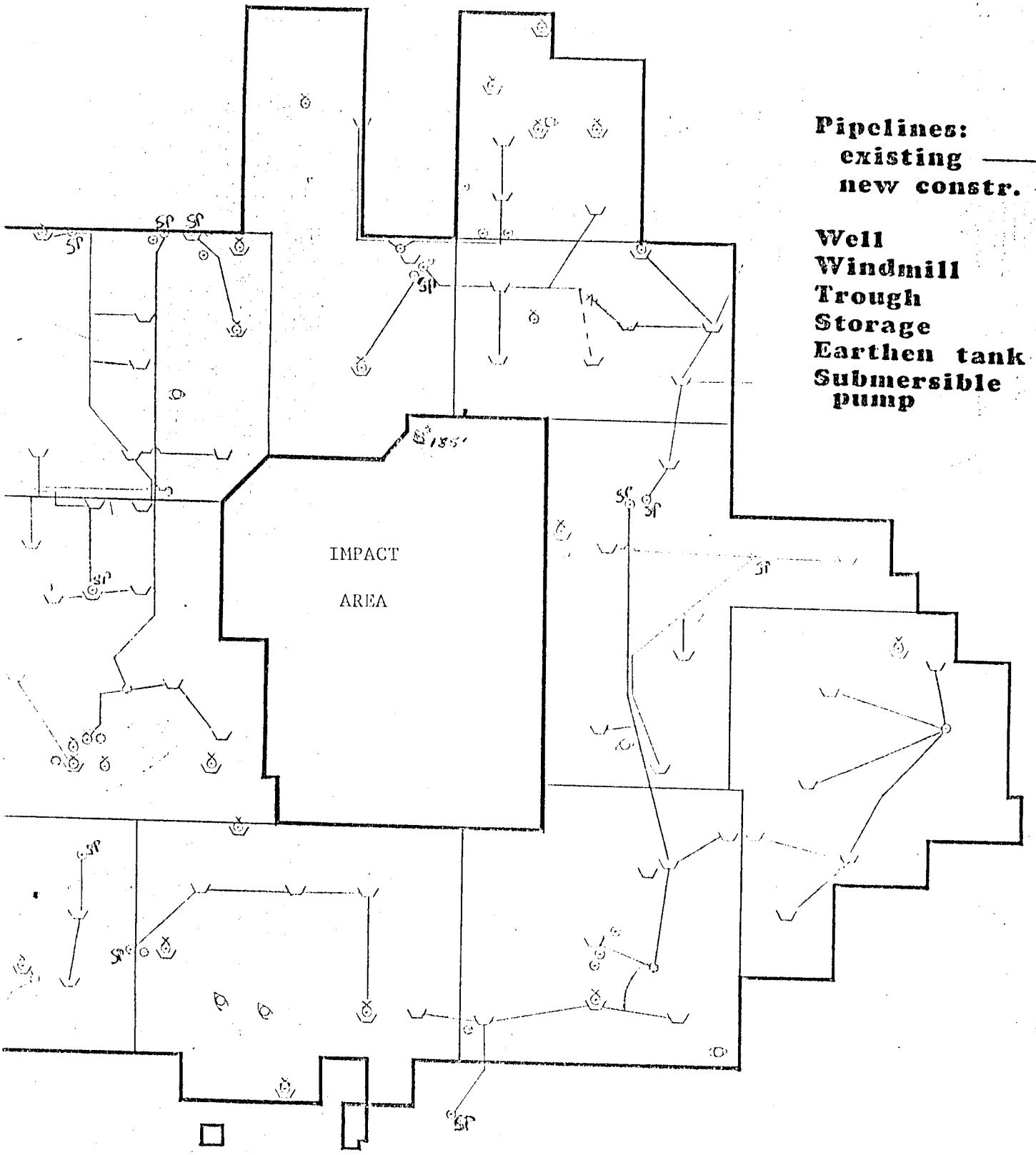
LOCATION	OWNER
26. 1N 30E 02 443	Unknown
27. 1N 30E 03 213	Guar Tex Inc.
28. 1N 30E 04 231	Davis Bros.
29. 1N 30E 05 123	Russel Grider
30. 1N 30E 06 212	Robert Grider
31. 1N 30E 06 222	Robert Grider
32. 1N 30E 07 211	Robert Grider
33. 1N 30E 13 223	State of NM
34. 1N 30E 13 314	Jim Grizzle
35. 1N 30E 13 414	Grayum Steele
36. 1N 30E 15 322	J. J. Steele
37. 1N 30E 24 114	H. H. Davis
38. 1N 30E 24 114	Steele Ranch
39. 1N 30E 30 111	H. H. Davis
40. 1N 30E 31 313	H. H. Davis
41. 1N 30E 32 344	H. H. Davis
42. 1N 30E 32 344	H. H. Davis
43. 1N 31E 00 321	J. J. Steele
44. 1N 30E 33 211	J. J. Steele
45. 1S 30E 06 111	H. H. Davis
46. 1S 30E 18 221	A. J. Parker
47. 1S 30E 22	F. L. Martin

LOCATION	OWNER
1. 2N 31E 31 221	Hart Ranch
2. 2N 30E 19 412	Harris Cattle Co.
3. 2N 30E 23 423	Unknown
4. 2N 30E 25 422	Jack Simon
5. 2N 30E 25 441	Hart Ranch
6. 2N 30E 26 442	Nolan Lawrence
7. 2N 30E 26 442	H. L. Harrel
8. 2N 30E 27 122	Bob Jenkins
9. 2N 30E 27 234	Bob Jenkins
10. 2N 30E 31 233	Harris Cattle Co.
11. 2N 30E 31 343	Robert Grider
12. 2N 30E 31 344	Robert Grider
13. 2N 30E 32 314	Davis Bros.
14. 2N 30E 32 424	Unknown
15. 2N 30E 34 121	Bob Jenkins
16. 2N 30E 34 141	Bob Jenkins
17. 2N 30E 34 341	Bob Jenkins
18. 2N 30E 34 432	Bob Jenkins
19. 2N 30E 35 332	Bob Jenkins
20. 2N 30E 35 432	Bob Jenkins
21. 1N 31E 17 132	Lenord Bigler
22. 1N 31E 17 341	Lenord Bigler
23. 1N 31E 17 441	Lenord Bigler
24. 1N 31E 19 224	Harris Cattle Co.
25. 1N 30E 01 212	Harris Cattle Co.

This appendix contains the locations and known previous owners of wells in the proposed Melrose AF Range expansion area. Extract from the 1985 Final Environmental Impact Statement for Expansion of the Melrose AFR, Curry County and Roosevelt Counties

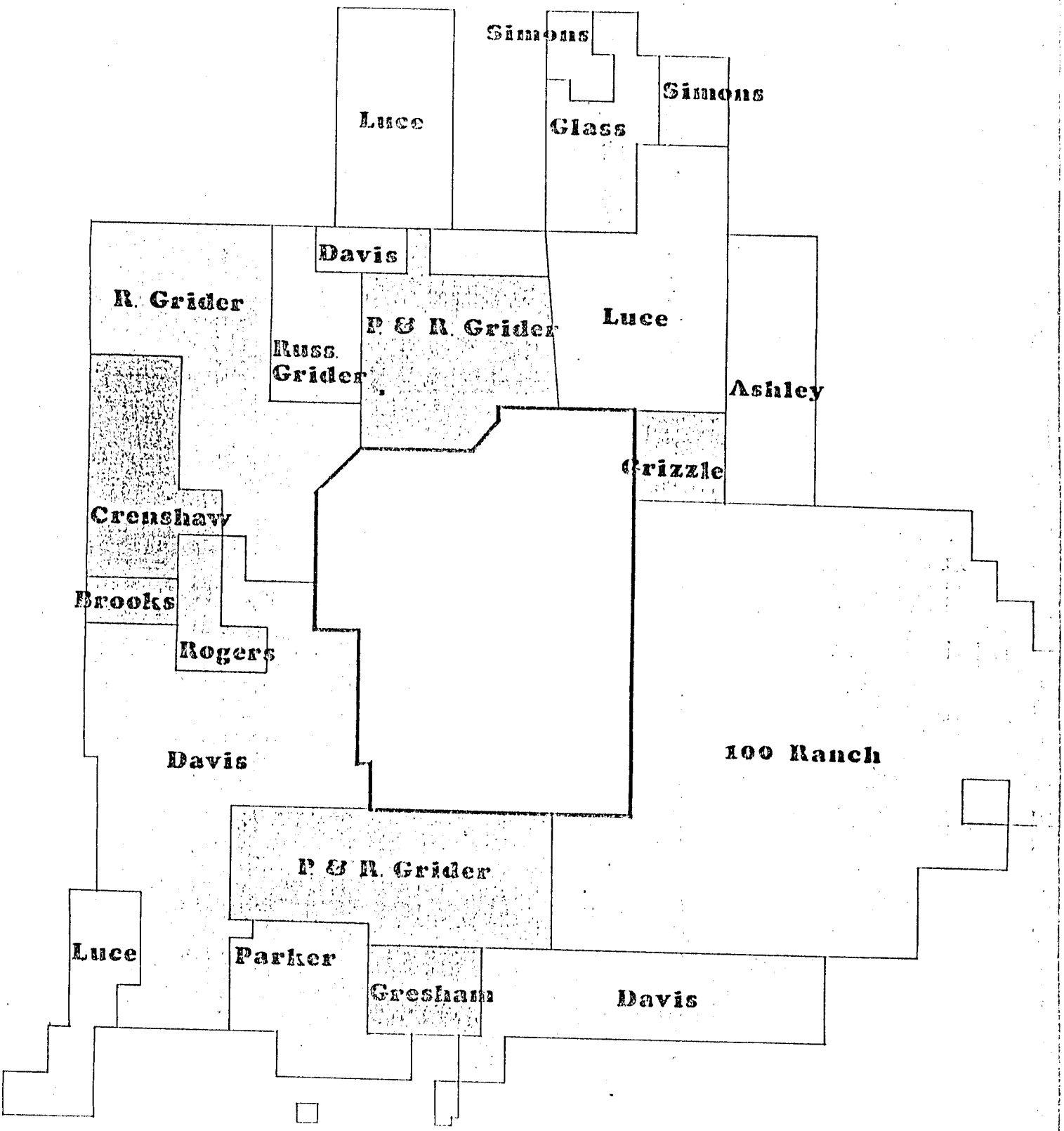
MELROSE FORCE RANGE, NEW MEXICO

WATER SYSTEMS

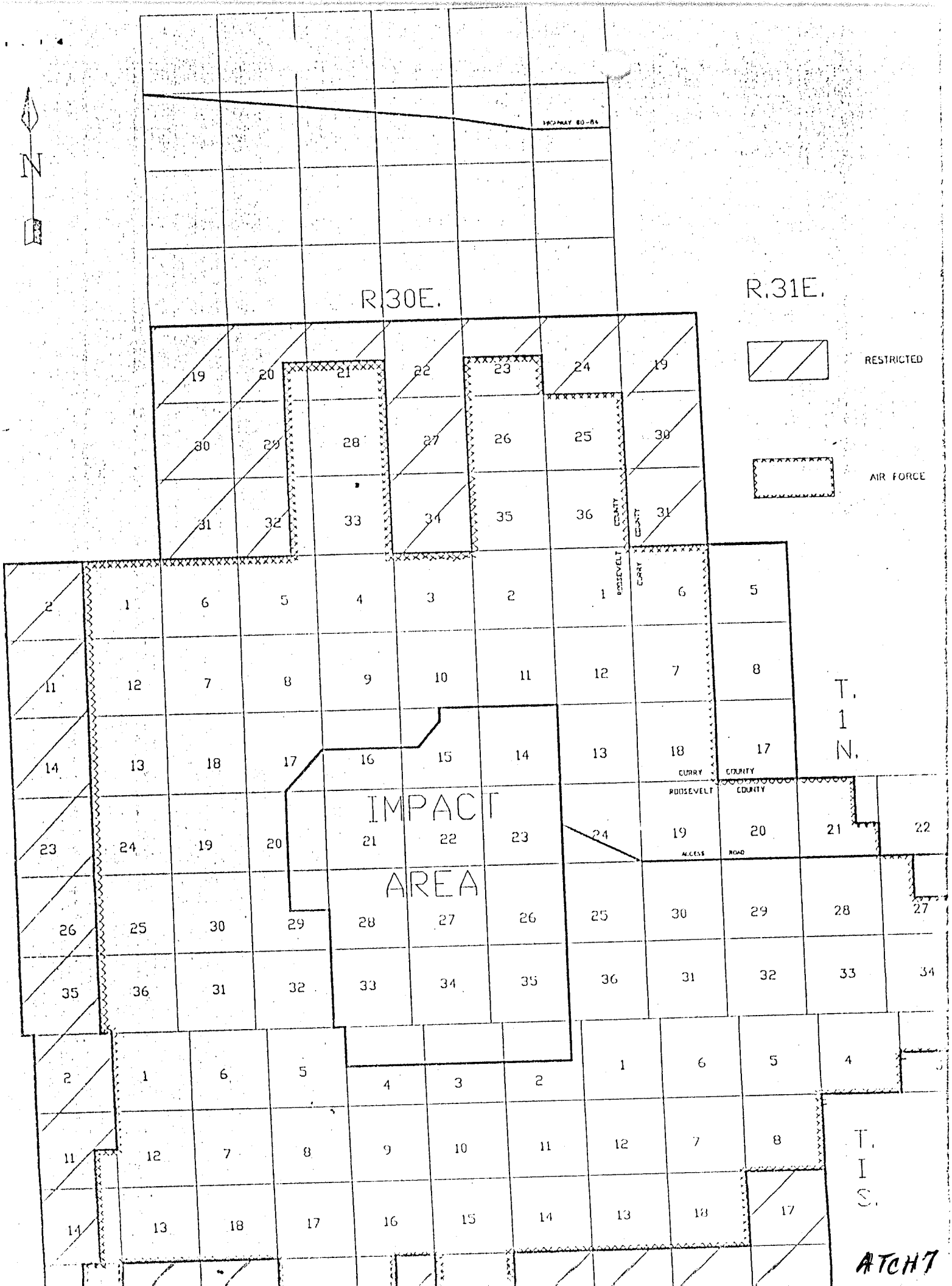


ATCHS

CROSE AIR FORCE RANGE, NEW MEXICO



ATCH6


N
R.30E.
R.31E.
RESTRICTED
AIR FORCE
T. 1 N.
T. 1 S.
IMPACT AREA
CURRY COUNTY
ROOSEVELT COUNTY
ACCESS ROAD

ATCH 7

Permanent RP: Describe other permanent points which could be used in case MP has to be changed. Top of casing or concrete pump base are the most desirable but any point may be used that is likely to exist as long as the well exists. In some cases it may be necessary to drive a steel hub and reference this to your MP with a level to the nearest 0.01 feet.

Be certain that description is detailed enough so that there can be no doubt what the reference point is. Since water levels are measured to the nearest 0.01 foot, the difference between the MP and the RP should be recorded to the nearest 0.01 foot.

Remarks: Any additional statements that are pertinent to clarification of the schedule should be entered under remarks. Do not write something in "remarks" to just fill up space.

DPN: This space is for data processing numbers and should be left blank. The appropriate number will be assigned when the water level data is keypunched.

File No.: Use State Engineer's file number if known, otherwise leave space blank.

Location No.: Determine the location number by the U.S.G.S. location system used in New Mexico and hereinbelow described:

WELL-NUMBERING SYSTEM

The system of numbering wells in New Mexico is based on the common subdivisions in sectionized land, and, by means of it, the well number, in

addition to designating the well, locates its position to the nearest 0.625-acre tract in the land net. The number is divided into four segments by periods. The first segment denotes the township north or south of the New Mexico base line; the second denotes the range east or west of the New Mexico principal meridian; and the third denotes the section. An "N" is added to the first segment of the well number if the well is north of the base line, but no letter is added if the well is south of the base line. Similarly, where wells are located west of the meridian, a "W" is added to the second segment of the well number of those wells west of the meridian but no letter is added if the well is east of the meridian.

The fourth segment of the number, which consists of five digits, denotes the particular 0.625-acre tract in which the well is situated. For this purpose the section is divided into four quarters, numbered 1, 2, 3, and 4, in the normal reading order, for the northwest, northeast, southwest, and southeast quarters, respectively. The first digit of the fourth segment gives the quarter section, which is a tract of 160 acres. Similarly, the quarter section is divided into four 40-acre tracts numbered in the same manner, and the second digit denotes the 40-acre tract. The 40-acre tract is divided into four 10-acre tracts and the third digit denotes the 10-acre tract. The 10-acre tract is divided into four 2.5-acre tracts and the fourth digit denotes the 2.5-acre tract. The 2.5-acre tract is divided into four tracts containing 0.625 acres each and the fifth digit determines this tract. Thus, well 12.36.24.12311 in Lea County is in the NW¼NW¼SW¼NE¼NW¼ sec. 24, T. 12 S., R. 36 E. If a well cannot be located

A TO #8

accurately to a 10-acre tract, a zero is used as the third digit, and if it cannot be located accurately within a 40-acre tract, zeros are used for both the second and third digits. If the well cannot be located more closely than the section, the fourth segment of the well number is omitted.

Letters a, b, c, - - - - - - are added to the last segment to designate the second, third, fourth and succeeding wells in the same 0.625-ac tract.

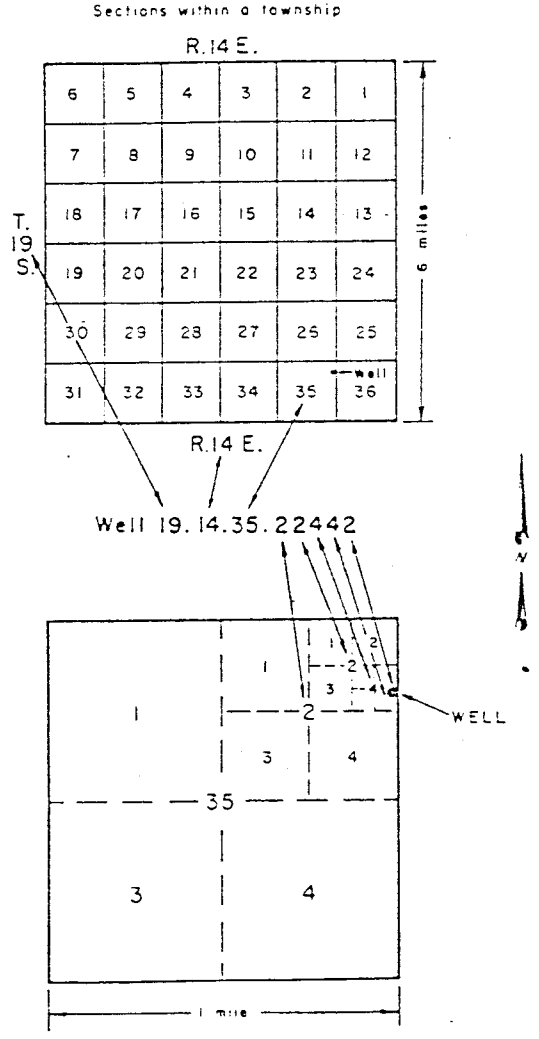
In sections which are irregular in shape or size record the template position used in determining the location number. Do not use the state line as a template position. In areas such as "land grants" where no sections exist the location numbers shall consist of the quadrangle number used by the State Engineer followed by the footage from the south and west lines of the quadrangle used. For example, a well located in the Mora Grant might be recorded as follows:

21.3.2 8500 FSL
36300 FWL

In this location number the first two numbers indicate the 30' quadrangle index number adopted from the New Mexico State Highway Dept., the next number indicates the 15' quad in the SW quadrant, the next number indicates the 7½ quad in the NE quadrant of the 15' quad and the last numbers show the footage from the south and west lines of the 7½ quad.

The following diagram shows the method of numbering the tracts within a section:

Diagram: System of numbering wells in New Mexico.



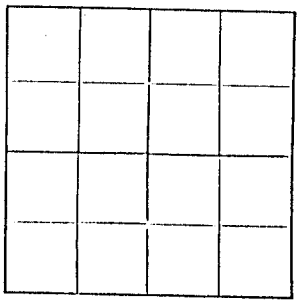
Form WR-23

STATE ENGINEER OFFICE

WELL RECORD

INSTRUCTIONS: This form shou[illegible] executed in triplicate, preferably typewritten, [illegible] ubmitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well Cannon Air Force Base Bombing Range (TH #1)

Street and Number

City State

Well was drilled under Permit No. and is located in the

¼ ¼ ¼ of Section Twp. Rge.

(B) Drilling Contractor Jimmy Roman License No. WD-395

Street and Number 3005 La Luz

City Clovis State New Mexico

Drilling was commenced 19

Drilling was completed 19

Elevation at top of casing in feet above sea level Total depth of well

State whether well is shallow or artesian Depth to water upon completion

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1				
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in In.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received

File No. Use Location No. IN. 30. 22. 323231

TH #1
Page 2

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
				4356
				35??
				4321??
				IN.30.22.323231
				X
				4356
				USCE plat of facility shows that
				this hole is located 1660 feet FWL
				and 1725 feat FSL of Section 22.

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driller

Test Hole No. 1

Type Color & Character	Depth of Material Encounte	Time required to drill each 5 ft.	Water Bearing C Character	Thickness of Mate	Any Additional Information
Red Sand	0 — 5	20 Min	None	0-5-5	None
Hard White Rock	5 -10	35 Min	"	"	"
"	10-15	1 hr 10	"	"	"
Loose Red Sand & Sand Stones	15-20	55 Min	"		
"	20-25	1 hr 5	"	16	"
Hard Brown Rock & Sand	25-30	1 hr 10	"	"	"
Gray Caliche	30-35	1 hr 55	"	27	"
Soft Pink Shale	35-40	1 hr 55	"	31	"
"	45	46 Min	"	36	"
"	50	55 Min	"	"	"
Hard Pink Shale	55	2 hr 10	"	"	"
"	60	1 hr 40	"	52	"
Hard Gray Shale	65	1 hr 5	"	"	"
Hard Pink Shale	70	1 hr 25	"	64	"
"	75	1 hr 35	"	68	"
"	80	1 hr 20	"	"	"
"	85	1 hr 30	"	76	"
"	90	1 hr 10	"	"	"
"	95	1 hr 25	"	"	"
"	100.	1 hr 30	"	"	"
"	105	1 hr 35	"	"	"
"	110	1 hr 15	"	"	"
"	115	1 hr 20	"	"	"
"	120	1 hr 40	"	"	"
"	125	2 hr 10	"	"	"
"	130	1 hr 40	"	"	"
"	135	1 hr 25	"	"	"
"	140	1 hr 25	"	"	"
"	145	1 hr 35	"	"	"
"	150	1 hr 30	"	"	"
"	155	1 hr 20	"	"	"
"	160	1 hr 35	"	"	"
	165	1 hr 45	"	"	"
Same with traces of red bed					
"	170	1 hr 40	"	"	"
	175	1 hr 55	"	"	"
Red Bed	175-180	2 hr 20	"	179	"

Land Surface Elev. at Well: 4356
This well was a dry hole.

4356
35 ??
4321 ??

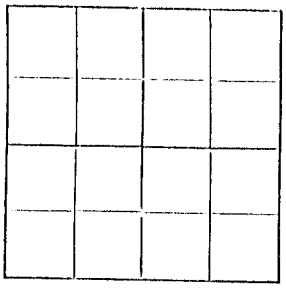
IN.30.22.323231

STATE ENGINEER OFFICE

WELL RECORD

INSTRUCTIONS: This form sh[illegible] be executed in triplicate, preferably typewritten, a[illegible] submitted to the nearest district office of the St[illegible]ngineer. All sections, except Section 5, shall be answ[illegible]s completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well Cannon Air Force Base Bombing Range (111 4Z)

Street and Number .....

City ..... State .....

Well was drilled under Permit No. ..... and is located in the

..... ¼ ..... ¼ ¼ of Section ..... Twp. ..... Rge. .....

(B) Drilling Contractor Jimmy Roman License No. WD-395

Street and Number 3005 La Luz

City Clovis State New Mexico

Drilling was commenced ..... 19.....

Drilling was completed ..... 19.....

Elevation at top of casing in feet above sea level ..... Total depth of well .....

State whether well is shallow or artesian ..... Depth to water upon completion .....

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1				
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor ..... License No. .....

Street and Number ..... City ..... State .....

Tons of Clay used ..... Tons of Roughage used ..... Type of roughage .....

Plugging method used ..... Date Plugged ..... 19.....

Plugging approved by:

..... Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received .....

File No. ..... Use ..... Location No. IN.30.22.32120

TH 2

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
				4349
				65??
				4284??
				IN. 30.22.32120
				X
				4349
				LISCE Plat of facility shows that
				this hole is located 1800 feet
				FWL and 2500 ft. FSL of Sec. 22

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driller

Test Hole No. 2

Type Color & Character	Depth of Material Encountered	Time required to drill each 5 ft.	Water Bearing C Character	Thickne of Material	Any Additional Information
Top Soil	0-5	30 Min	None	0-5-5	None
Mild White Caliche	5-10	45 Min	"	"	"
Mild red sand & sand stones	10-15	45 Min	"	14	"
"	15-20	40 Min	"	"	"
"	20-25	45 Min	"	"	"
"	25-30	40 Min	"	"	"
"	30-35	45 Min	"	"	"
Coarse Brown Sand Mild	35-40	35 Min	"	42	"
"	40-45	40 Min	"	"	"
"	45-50	45 Min	"	"	"
River gravel & Sand (Mild)	50-55	1 hr 10	"	54	"
"	55-60	1 hr 15	"	"	"
Coarse Sand	60-65	1 hr 5	"	63	"
Brown Sand & Pink Shale	65-70	1 hr 30	"	68	"
Pink Shale	75	1 hr 15	"	"	"
"	80	1 hr 40	"	"	"
"	85	1 hr 40	"	"	"
Red Clay	90	90 Min	"	86	"
"	95	1 hr 45	"	"	"
"	100	1 hr 40	"	"	"
Pink Shale Soft	105	1 hr 15	"	103	"
"	110	1 hr 45	"	"	"
Blue Clay & Coarse Sand	115	1 hr 50	"	114	"
"	120	2 hr 5	"	"	"
"	125	2 hr 10	"	"	"
"	130	1 hr 50	"	"	"
"	135	1 hr 45	"	"	"
Hard Pink Shale	140	1 hr 50	"	138	"
"	145	1 hr 40	"	"	"
"	150	1 hr 45	"	"	"
"	155	1 hr 45	"	"	"
"	160	1 hr 40	"	"	"
"	165	1 hr 50	"	"	"
Mild blue shale	170	1 hr 45	"	169	"
"	175	1 hr 45	"	"	"
"	180	1 hr 35	"	"	"
"	180-185	1 hr 15	"	"	"

4349
65 ??
4284 ??

IN.30.22. 32120

Test Hole No. 2 (contd)

Type Color & Character	Depth of Material Encountered	Time required to drill each 5 ft.	Water Bearing Character	Thickness of Material	Any Additional Information
Mild Pink Shale	190	1 hr 30	None	187	
Red Clay	195	1 hr 45	"	194	
"	200	1 hr 45	"	"	
Hard Pink Shale	205	2 hr 25	"	202	
"	210	1 hr 50	"	"	
Hard Brown Shale	215	2 hr 5	"	213	
"	220	2 hr 40	"	"	
"	225	2 hr 20	"	"	
"	230	2 hr 40	"	"	
"	235	2 hr 30	"	"	
Mild Pink Shale	240	1 hr 35	"	239	
"	245	1 hr 40	"	"	
"	250	1 hr 45	"	"	
"	255	1 hr 30	"	"	
"	260	1 hr 50	"	"	
Mild Brown Shale	265	1 hr 40	"	262	
"	270	1 hr 50	"	"	
"	275	1 hr 50	"	"	
Hard Brown Shale	280	2 hr 35	"	277	
Hard Blue Shale	286	2 hr 15	"	284	
Mild Blue Shale	290	1 hr 40	"	"	
Mild Blue Shale	295	1 hr 50	"	"	
"	300	1 hr 55	"	"	
Mild Pink Shale	305	1 hr 40	"	304	
"	310	1 hr 35	"	"	
"	315	1 hr 40	"	"	
"	320	1 hr 50	"	"	
"	325	1 hr 40	"	"	
"	330	1 hr 25	"	"	
"	335	1 hr 30	"	"	
"	340	1 hr 20	"	"	
"	345	1 hr 25	"	"	
"	350	1 hr 40	"	"	

Land surface elev. at well: 4349
This well was a dry hole.

A test well, designated as Test Hole No. 3, was drilled at a point about 6 feet from Test Hole No. 2.

DEPARTMENT OF THE AIR FORCE
Headquarters 27th Combat Support Group (TAC)
Cannon Air Force Base, New Mexico 88103-5000

CAFB REGULATION 136-18

Armament

DECONTAMINATION OF MELROSE BOMBING/GUNNERY RANGE AND DISPOSAL OF MUNITIONS

This regulation establishes procedures for the removal of inert or live ordnance from Melrose Bombing/Gunnery Range, and munitions approved for disposal of AF Form 191, Ammunitions Disposition Request, by any approved method.

1. Responsibilities. The senior Explosive Ordnance Disposal (EOD) member, AFSC 464X0, of the team involved with the operation(s) and supervisors of supporting activities will be responsible for ensuring compliance with this regulation.

2. References. AFR 50-46, Weapon Ranges; AFR 127-100, Explosive Safety Standards; AFM 67-1, Volume VI, Excess & Surplus Personal Property; TACR 136-7, TAC Explosive Ordnance Disposal (EOD) Management Program; TO 11A-1-42, General Instructions for Disposal of Conventional Munitions; TO 11A-1-46, Fire Fighting Guidelines, Transportation, and Storage; and other applicable 60 series explosive ordnance disposal TOs.

3. Explosive Limits. Explosive limits will be held to the minimum. This includes transportation of dud ordnance to a disposal site, consolidation of duds, disposal in place, and munitions approved for disposal (AF Form 191, Ammunitions Disposition Report).

a. Consolidation of items. Charges prepared for disposal will be limited to 1,000 pounds of Class 1, Division 1 explosive.

b. Disposal in place. Explosive limits will be held to the minimum amount necessary to effect disposal of munition(s) encountered.

4. Location of Operations. Melrose Bombing/Gunnery Range.

a. Monthly, annual or 5-year clearance. Targets are cleared IAW AFR 50-46, as supplemented.

b. EOD site. Located 6,000 feet south of the main tower and 4,000 feet west of the east boundary fence of the range complex.

c. Burial pit area. Located 4,000 feet north of the main tower or as determined by Base Civil Engineering (BCE).

5. Personnel Limits.

a. Minimum:

(1) Munitions disposal operations will be conducted under the supervision and control of a qualified and experienced supervisor, E-5 or above, possessing the AFSC 46450 or 4054B. At least two qualified and knowledgeable personnel will be physically present at each disposal operation.

(2) A minimum of two EOD or contractor will be physically present during any range decontamination operation.

(3) At least one qualified EOD or contractor will be included in each range team working in a contaminated area.

b. Maximum. Personnel limits will be based on the type of range decontamination or area clearance to be performed. At no time will the number of personnel exceed the number that can be effectively controlled or supervised. When practical, individual teams will be limited to one qualified EOD or assigned range personnel, or qualified supervisor for every seven team members.

6. Equipment Requirements:

a. EOD Equipment:

(1) Vehicle 4x4, as required.

Supersedes CAFBR 136-18, 24 April 1987
No. of Printed Pages: 8
OPR: AOE (MSgt Samuel R. Silva)
Approved By: Lt Col Charles D. Whittenberg
Editor: I. M. York
Distribution: F; X: HQ TAC/DOSSY

ATCH 9

(2) Spare tires, one per vehicle.

(3) Intrabase radio, one per vehicle and one per operating team chief.

(4) Range book.

(5) First aid kit, one per vehicle.

(6) Fire fighting equipment, as required.

(7) Common hand tools, as required.

(8) Pioneer tools, as required.

(9) Munition inspector stamps, as required.

(10) Spray paint, as required.

(11) Spray handles, if available.

(12) Water cans, two each (with ice).

(13) Work gloves, as required.

(14) Non-explosive demolition equipment, as required.

b. Equipment provided by range contractor.

(1) Dump trucks, as required.

(2) Front end loader, as required.

(3) Grader, as required.

7. Safety Precautions.

a. General.

(1) All applicable safety precautions listed in referenced publications will be complied with.

(2) Personnel will not work on the range unless properly briefed by EOD, range, or explosive safety personnel.

(3) At least two individuals will be present during any work in contaminated areas.

(4) When doubt exists as to the condition of an item, the item will be considered hazardous until proven otherwise.

(5) During clearance operations, personnel will maintain safe distance and will assemble only in safe cleared areas.

(6) Ordnance items other than small arms and 20mm positively identified as Target Practice (iP) ammunition, will not be touched or picked up until inspected and certified as inert.

(7) When an unusual situation or safety deviation is noted, all work will be stopped and the senior EOD member or range NCOIC will be notified.

(8) Heavy equipment operators will not run over small ordnance items, such as small arms and miniature practice bombs.

(9) Areas will be cleared of all ordnance prior to grading or plowing. These areas include access roads and lead-in lines in, around, and through target areas.

(10) During range clearance operations, the senior EOD member will maintain radio communication with range tower by intrabase mobile radio. Range crews and teams will maintain communications with senior EOD member or range tower.

(11) Areas where work is to be performed, will be checked by EOD personnel or the range NCOIC prior to dispatching work crews.

b. Emergency procedures.

(1) Cease all operations immediately and, as time permits, relay specific details to 27th Tactical Fighter Wing (TFW) Command Post by phone or by intrabase mobile radio through Cannon Rescue Control.

(2) Unscheduled aircraft. Depart the area immediately to a safe area using the safest and most direct route. Concurrently notify range tower or Cannon AFB Control Tower by radio.

(3) Personal injury. Administer Self Aid and Buddy Care, and request an ambulance or if available, air evacuation by landline or intrabase radio.

(4) Range fires. Notify the senior firefighter. Do not attempt to control grass fires in areas contaminated with explosive ordnance. Control fires in a safe area by means of firebreaks.

8. Responsibilities of Support Agencies.

a. Range Contractor will:

(1) Notify and coordinate with the EOD Branch Operations NCOIC all range maintenance operations involving work in contaminated areas except strafe target areas.

(2) Clean and supervise the cleanup of strafe target as required by applicable directives. This ammunition consists of small arms (up to and including 50 cal ammunition and 20 mm cartridges, cartridge cases, projectiles, and hard objects which can be readily identified as being free of explosive hazards.

(3) Provide heavy equipment and operators for scheduled range clearance operations.

(4) Select munitions residue burial sites by coordinating with BCE.

(5) Prepare and maintain burial sites IAW TO 11A-1-60, Inspection of Reusable Munitions Containers and Scrap Material Generated from Items Exposed to, or Containing Explosives.

(6) Designate and control holding areas for munitions residue pending disposition by means other than burial.

(7) Do not release any munitions residue from the range without the approval of the EOD Branch.

(8) Ensure that all personnel assigned to the range complex receive required range safety briefings.

b. DRMO will:

(1) Furnish guidance on disposition of munitions residue where specific instructions have not been issued. As a rule, items which cannot be redistributed locally or sold with a monetary return equal to or greater than cost will be marked for burial.

(2) Determine storage location and classification of munitions residue pending local redistribution/sale to commercial buyers.

(3) Contact the EOD Branch prior to the release of any munitions material recovered from the range.

c. The Base Fire Department will provide fire fighting equipment and personnel during disposal of explosive items and standby personnel when deemed necessary by the Base Fire Chief.

d. The Base Hospital will ensure that an ambulance and a qualified medical technician is available for dispatch to the range, should an emergency arise.

e. Munitions Storage Area will:

(1) Provide munitions inspectors for processing all small arms and 20mm brass (cartridge cases) for turn in to DRMO.

(2) Provide personnel and transportation to transport munitions IAW applicable directives.

(3) Assign holding areas for munitions which are documented on the Ammunitions Disposition Request (ADR) and jointly with EOD, ensure pre-inspection and accountability prior to range disposal operations.

f. EOD personnel will:

(1) Inspect and certify all munitions except small arms and 20mm TP ammunition.

(2) Destroy all items containing explosives or other hazardous materials.

(3) Process all munitions residue, with a resale value for disposition.

(4) Coordinate the disposition of all munitions residue with DRMO.

(5) Perform or monitor final inspection of munitions residue released for local redistribution or sale to commercial buyer.

g. Bio-Environmental Engineer will:

(1) Collect annual soil sample of Thermal Treatment, Open Burn, and Open Detonation Area.

(2) Preserve sample.

(3) Submit sample for Lab Analysis.

(4) Provide copy of Sample Analysis to 27 CSG/DEV.

9. Sequence of Operation.

a. Preliminary actions:

(1) Ensure specific dates and times for all range operations have been coordinated with Range Contractor, 27 TFW Command Post, and 27 TFW Current Operations.

(2) Upon notification of a range operation, determine personnel, equipment, and demolition explosive requirements.

(3) Coordinate the date of operation and action indicated (as applicable) with the following agencies:

(a) Inform munitions Operations Section of the pre-inspection and inventory of all munitions authorized for disposal as specified on completed AF Form 191, and ensure all required documents are available and properly filled out.

(b) Coordinate with the munitions storage section of the type, quantity, date, and time munitions will be picked up or delivered as required.

(c) Contact Base Fire Chief and coordinate the type of fire fighting equipment needed. Contact the Law Enforcement desk (4112) and coordinate any help that might be needed.

(d) Contact range contractor to coordinate heavy equipment requirements.

(e) Contact the Base Hospital Emergency Room and coordinate with the Base Medical Facility about the type of equipment to be readily available during range operations.

(f) Inform the Environmental Coordinator of the quantity (pounds) of explosives to be disposed and date of disposal.

(4) Notify all agencies involved of any change or cancellations.

(5) Postpone or cancel the disposal operation when adverse weather conditions are expected during the disposal period.

(6) Check vehicles for fuel, proper operating conditions, essential accessories, and ensure that all safety appliances are in good working order.

(7) Under no circumstance will ordinance pit be filled without notification and approval by 27 CSG/DEV.

b. Prior to departure to Melrose Range:

(1) Notify the following agencies as applicable. Inform each agency of location, type of operation, and duration:

AGENCY	REQUIREMENTS
Munitions Storage	See paragraph 9a(3)(b).
Munitions AFK	See paragraph 9a(3)(a).
Medical Facility	See paragraph 9a(3)(d).

Security Police	Notification only.
Fire Department	See paragraph 9a(3)(c)
Base Operations	Notification only.
Command Post	Overflight restrictions are in effect.
Wing Safety	Notification only.

(2) Assembly personnel, tools, and equipment.

(3) When more than one vehicle is used, dispatch vehicles with required number of personnel to pick up demolition material. Driver(s) will be briefed on the approved base explosive routes.

(4) Load equipment in other vehicle(s) when available.

(5) Proceed to Munitions Storage Area (MSA) and assemble convoy at the main entrance gate, if applicable.

(6) If transporting explosives from the MSA to Melrose, ensure that the explosives are properly secure to the vehicle and the proper placards are placed on the vehicle.

(7) Brief all personnel on convoy procedures. Refer to CAFBR 75-1, Movement of Explosives.

c. Arrival at Melrose Range:

(1) Notify Security Police of arrival, if applicable.

(2) Call Command Post to confirm that EOD is working on the range and the range is inactive.

(3) Ensure medical and firefighting personnel are available and proper equipment is operational.

(4) Coordinate range operations with range supervisor.

(5) Brief EOD, range, medical, and fire department personnel on specific operations to be conducted, to include the following:

(a) Location of work, size and number of working parties, team chief, and equipment requirements.

(b) Obtain range radio and establish communications with base or other control point. Sign out radio.

(c) Ensure range building is staffed by range personnel.

(d) Designate individual to administer EOD briefing of augmentees, and if required, range personnel.

(6) Assemble personnel for EOD briefing and emphasize the following:

(a) Emphasize safety as outlined in paragraph 7 of this regulation.

(b) Personnel will sign the EOD briefing statement only when instructions have been properly understood.

(c) Adherence to safety rules will be observed at all times.

(7) Divide into teams and assign work locations.

(8) Dispatch working parties.

d. Clearance of targets.

(1) Tactical targets:

(a) EOD personnel will line up and walk through an area to inspect and certify munitions for augmentee or contractor removal.

(b) Certify residue as follows:

1 BDU-33 and MK 106 practice bombs that are dud fired or non-probeable will be placed in the trailer or dump truck and transported to the EOD disposal site.

2 Expended munitions residue will be marked with white spray paint for removal by augmentees or contractor.

3 M/MK 80 series and BDU-45/50 practice bombs will be inspected to determine filler sand or concrete and marked as follows:

a. Inspect nose and tail to determine filler. If INERT, bomb will have "BURY" marked in white spray paint on the side and will be removed by range personnel to disposal area and 60 series procedures performed.

b. If determination cannot readily be made, item will be "BLOW" marked on the side in white paint and disposal procedures will be performed using applicable 60 series technical data. Then item will be removed by range personnel.

e. Disposal of munitions on Melrose Range:

(1) Items which cannot be redistributed locally or sold with a monetary return equal to or greater than the recovery cost will be placed on approved burial pits. The following items will normally be included in this category:

(a) The MK 106 practice bombs.

(b) Tail sections of BDU-33 practice bombs.

(c) The 20 mm KTP and small arms projectiles.

(d) Concrete filled MK 80 series, M117, and BDU-50 practice bombs.

(e) The BDU-33 practice bombs with tail sections.

(2) The BDU-33 practice bomb bodies will be placed in the range holding area as time permits for consolidation of items. They will be inspected, marked, transported, and processed through DRMO IAW TO 11A-1-60 and local directives.

(3) MK 80, M series, and BDU-50 practice bombs will be demilitarized in a manner to expose to filler.

(4) Dud fired practice bombs and ADR munitions will be processed and transported to the EOD disposal site and disposed of IAW TO 11A-1-42 and applicable 60 series technical orders.

(5) Coordinate with range control and verify permission to conduct required operations, such as disposal in place, detonation and disposal range and burn operations.

(6) Due to EPA concerns burning of munition items will only be accomplished if no other means of disposal are available.

f. Removal of munitions residue from Melrose Range:

(1) Coordinate equipment requirements with range supervisor.

(2) Inspect outgoing loads of brass for extraneous material and transport brass to MSA and turn in to inspection section.

(3) Ensure all items, except brass, are 100 percent inspected and marked IAW T.O. 11A-1-60 prior to being loaded for removal.

(4) Ensure loads are secured to vehicle so materials will not break loose enroute.

(5) Complete proper paperwork at DRMO, as applicable.

g. Release or sale of munitions residue by DRMO: see paragraph 8b of this regulation.

h. Completion of range operations:

(1) Inspect cleared and disposal areas for munitions residue and dispose of IAW applicable directives.

(2) Release medical and firefighting personnel, to include augmentees, when no longer required.

(3) Turn in range radios.

(4) Call the Command Post to notify them that EOD is departing the range and that the range may go active, as required.

(5) Return any unused explosives to the MSA.

(6) Accomplish the required reports.

(a) AFTO Form 358, Explosive Ordnance Disposal Report.

(b) AF Form 191, Ammunition Disposition Report, if applicable.

(c) AF Form 2005, Issue/Turn in Request.

(d) EOD Thermal Treatment Facility Inspection Log.

(e) DD Form 1348-1, DoD Single Line Item Release/Receipt Document, if applicable.

1 If the identity of the item is not retained and a salable quantity of residue remains after disposal, ensure that the disposal statement reads: "Disposal has been accomplished. There is material which has been downgraded to scrap or waste."

2 If the identity of the Item is not retained and a salable quantity of residue does not remain after disposal, ensure that th disposal statement reads: "Disposal has been accomplished. There is not residue material which has been downgraded to scrap or waste."

3 When engaged in a demilitarization operation, the word "disposal" will be deleted form the statement. The "residue material" portion of the statement will be accomplished as in paragraph (e)1 and 2 above.

10. Distribution. This regulation will be readily available to all personnel concerned and will be available at the operating location.

DAVID E. BENSON, Colonel, USAF
Commander

JAMES J. SCHNEIDER, Captain, USAF
Chief, Base Information Management

1 Attachment
Expended Munitions List

SUMMARY OF CHANGES
Changes responsibility of the hospital (paragraph 8d); adds requirement for Bio-Environmental Engineer (paragraph 8g); changes certifying residue (paragraph 9d(1)(b)); and adds to the disposal of munitions on Melrose Range (paragraph 9e(6)).

EXPENDED MUNITIONS LIST

The following munitions items have been expended on Melrose Range and may be found during clearance operations:

1. MINIATURE PRACTICE BOMBS

   a. MK 106
   b. BDU 33
   c. BDU 23
   d. AN MK 23
   e. MB 2
   f. MD 6

2. FULL SCALE PRACTICE BOMBS

   a. AN M38A2 (100 lb)
   b. AN M64A1 (500 lb)
   c. MK 81 (250 lb)
   d. MK 82 (500 lb)
   e. M117 (750 lb)
   f. MK 84 (2000 lb)
   g. BDU 38
   h. BDU 45
   i. BDU 50

3. BOMB FUZES USED

   a. M100 series
   b. M112 series
   c. M103
   d. M904 (nose)
   e. M905 (tail)

4. FIRE BOMBS

   a. FMU 7 fuze series
   b. M173 Fuze
   c. M23 igniters

5. AIRCRAFT ROCKETS

   a. 2.25 inch sub-cal
   b. 2.75 inch FFAR
   c. TDU 11 target rocket

6. WARHEADS FOR AIRCRAFT ROCKETS

   a. MK 1 Mod 0 2.75 inch practice
   b. M 61 2.75 inch practice
   c. MK 5 2.75 inch HEAT
   d. MK 156 2.75 inch WP

7. FLARES AND SIGNALS

   a. M 9 aircraft flares
   b. MK 24 aircraft flares
   c. Pen gun flares
   d. Slap flares
   e. MK 13 distress flares
   f. M18 smoke grenades

LEGEND:
Red Border - Watershed Boundary
Yellow - Streambed
Green w/ Roman Numerals - Subareas
Black Cross Hatch - 100-year Flood Plain
Symbol
SCALE
1" = 2000'
OPEN DUMP FACILITY
OPEN BURN PIT
100-year floodplain
Discharge Point
TOWER
4450
4430

ATCH 10

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 27 JAN 90 TIME 1000

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER			
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	N/A		
	B. GRADED			
	C. PREPARED			

SIGNATURE _____

ATCH 11

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
	210	BDU-33 PRACTICE	210				
	10	MK-106, PRACTICE	10	SEAFTO	358	JAN 90	
	6	MK-4, SIGNALS		FOR MELROSE			
	N/A	20MM T.P.	N/A				
	N/A	DIESEL FUEL	N/A				
	1	M-23 10 MINE					
	1	FUM-7- FUZE					

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EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 6 Feb 90 TIME 1530

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING			Not Checked
	B. GATES			
	C. SIGNS			
FUEL REQUIREMENTS	A. DIESEL			
	B. CONTAINER			
FIRE PROTECTION	A. EXTINGUISHERS			
	B. CHARGED			
	C. SEALS			
	D. FIRE EQUIP			
COMMUNCATIONS EQUIPEMENT	A. RADIO			
	B. OPERATIONAL			
RANGE CONDITIONS	A. PIT			
	B. GRADED			
	C. PREPARED			

SIGNATURE Jeffrey S. Thomas

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
	0	~~BDU-33 PRACTICE~~	N/A				
	0	~~MK-106, PRACTICE~~	N/A				
	0	~~MK-4, SIGNALS~~	N/A				
	0	20MM T.P.	N/A				
	0	~~DIESEL FUEL~~	N/A				
None	~~1~~	~~M23 Igniter~~	~~D~~			Thomas	6 Feb 7
None	1	~~FMU-7 Fuze~~	~~D~~			Williamson	6 Feb 7

THIS INSPECTION LOG SHEET MUST BE [illegible]INED ON FILE FOR A PERIOD OF THREE (3) YEARS FROM DATE OF INSPECTION IAW NEW MEX[illegible] ENVIORNMENTAL IMPROVEMENT DEVISION REGULATIONS.

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 24 Feb 90 TIME 0800

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	✓		
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE Donald Mock

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
		BDU-33 PRACTICE					
		MK-106, PRACTICE					
		MK-4, SIGNALS					
		20MM T.P.					
		DIESEL FUEL					

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19-30 MAR 90

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL			N/A
	B.CONTAINER			N/A
FIRE PROTECTION	A. XTNGSHRS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D.FIRE EQUIP	✓		
COMMUNICATIONS EQUIPMENT	A. RADIO	✓		
	B.OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT			N/A
	B. GRADED			
	C. PREPARED			

SIGNATURE: [signature]

LISTING OF MATERIAL DATE: 19-30 MAR 90

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	PERSONNEL	M/HR
	1450	BDU-33 PRAC				
	30	MK 106 PRAC				
	12	MK 4 SIGNAL				
	N/A	20 MM TP				
	N/A	DIESEL FUEL				
	1	20MM HC				
	1	M23 IGNITER				
	17	RR 141 CHAFF				
	5	.50 CAL BALL				
	43	7.62 BALL				
	4	BDU 48				
	1	CXU 3				
	1	RR 119 FLARE				
ITEMS	FROM	THE RANGE		CLEARANCE 19-30	MAR 90	
~~#~~						

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DATE OF INSPECTION IAW NEW MEXICO ENVIRONMENTAL IMPROVEMENT DEVISION REGS.

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 2 JUN 90 TIME 1300

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	X		
	B. GATES	X		
	C. SIGNS	X		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER			
FIRE PROTECTION	A. EXTINGUISHERS	X		
	B. CHARGED	X		
	C. SEALS	X		
	D. FIRE EQUIP	X		
COMMUNCATIONS EQUIPEMENT	A. RADIO	X		
	B. OPERATIONAL			
RANGE CONDITIONS	A. PIT	N/A		
	B. GRADED	X		
	C. PREPARED			

SIGNATURE Dale R Evans

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	NEW	TARGETS CLEARED	M/HR	PERSONNEL	DATE
	171	BDU-33 PRACTICE	[illegible]				
	5	MK-106, PRACTICE	[illegible]				
	4	MK-4, SIGNALS	[illegible]				
	X	20MM T.P.	X				
	X	DIESEL FUEL	X				
	6	[illegible]	.85				
	2	A/C, CART	[illegible]				
	1	HAND [illegible]	[illegible]				
	1	[illegible]	[illegible]				
	3	[illegible]	[illegible]				
	2	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	2	[illegible]	[illegible]				
	4	[illegible]	[illegible]				
	2	[illegible]	[illegible]				
	2	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	8	[illegible]	[illegible]				
	3	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	6	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	8	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	1	[illegible]	[illegible]				
	20	[illegible]	[illegible]				
	30	Det Cord	.105				
	25	Time Fuze	[illegible]				
	28	C-4	[illegible]				
	10	Ignition Caps	[illegible]				
	2	BDU-48's	[illegible]				
		Total =	35.29				

THIS INSPECTION LOG SHEET MUST BE RETAINED ON FILE FOR A PERIOD OF THREE (3) YEARS FROM DATE OF INSPECTION IAW NEW MEXICO ENVIORNMENTAL IMPROVEMENT DEVISION REGULATIONS.

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 22 Jul 90 TIME 1500

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	✓		
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE Donald E Peck

LISTING OF MATERIAL NEW

ADR NUMBER	QTY	NOMENCLATURE	B/D	~~TARGETS CLEARED~~	M/HR	PERSONNEL	DATE
	Ø	BDU-33 PRACTICE	N/A	N/A			
	Ø	MK-106, PRACTICE	N/A	N/A			
	Ø	MK-4, SIGNALS	N/A	N/A			
	Ø	20MM T.P.	N/A	N/A			
	Ø	DIESEL FUEL	N/A	N/A			
	15	A/C Cart.	D	0.014			
	108	Impulse Cart	D	0.108			
	1	gas generator	D	0.906			
	6	cord assy	D	0.004			
	2	Inertia Reel	D	0.004			
	1	SMK Grenade, MK	D	0.720			
	1	Proj Simulator	D	0.141			
	1572	Small Arms Ammo	D	3.458			
	1	Grenade Simulator	D	0.081			
	62	Signal Cart.	D	0.207			
	3	M 905 Fuze	D	0.045			
	2	M 904 Fuze	D	0.330			
	2	RR-141 chaff unit	D	0.001			
	1	Adpt Booster	D	0.880			
	25	Time Fuze	D	0.135			
	20	C-4	D	25.000			
	2	Nonele Obstr Cpc	D	0.005			
		Total		32.039			

THIS INSPECTION LOG SHEET MUST BE RETAINED ON FILE FOR A PERIOD OF THREE (3) YEARS FROM DATE OF INSPECTION IAW NEW MEXICO ENVIORNMENTAL IMPROVEMENT DEVISION REGULATIONS

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 28 Jul 90 TIME 1630

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	✓		
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE [signature]

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	NEW TARGETS ~~CLEARED~~	M/HR	PERSONNEL	DATE
	170	BDU-33 PRACTICE	D	10.234			
	12	MK-106, PRACTICE	D	0.732			
	13	MK-4, SIGNALS	D	0.783			
	~~0~~	20MM T.P.	~~N/A~~	~~N/A~~			
	~~0~~	DIESEL FUEL	~~N/A~~	~~N/A~~			
	4	BDU-48	D	0.005			
	25	Time Fuze	D	0.135			
	50	C-4	D	62.500			
	2	Novelty Obj (qty)	D	0.005			
		Total	D	74.384			

THIS INSPECTION LOG SHEET MUST BE RETAINED ON FILE FOR A PERIOD OF THREE (3) YEARS FROM DATE OF INSPECTION IAW NEW MEXICO ENVIORNMENTAL IMPROVEMENT DEVISION REGULATIONS.

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 17 Nov 90 TIME 1200

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	X		
	B. GATES	X		
	C. SIGNS	X		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	X		
	B. CHARGED	X		
	C. SEALS	X		
	D. FIRE EQUIP	X		
COMMUNCATIONS EQUIPEMENT	A. RADIO	X		
	B. OPERATIONAL			
RANGE CONDITIONS	A. PIT	N/A		
	B. GRADED	X		
	C. PREPARED	X		

SIGNATURE Timothy W Parker

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
	24	BDU-33 PRACTICE					
	10	MK-106, PRACTICE					
	5	MK-4, SIGNALS					
	1	20MM T.P.					
		DIESEL FUEL					
	40						
	11						
	25						
	10						
	2						

THIS INSPECTION LOG SHEET MUST BE RETAINED ON FILE FOR A PERIOD OF THREE (3) YEARS FROM DATE OF INSPECTION IAW NEW MEXICO ENVIORNMENTAL IMPROVEMENT DEVISION REGULATIONS.

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 10 Dec 90 TIME 0900

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	X		
	B. GATES	X		
	C. SIGNS	X		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	X		
	B. CHARGED	X		
	C. SEALS	X		
	D. FIRE EQUIP	X		
COMMUNCATIONS EQUIPEMENT	A. RADIO	X		
	B. OPERATIONAL	X		
RANGE CONDITIONS	A. PIT	N/A		
	B. GRADED	X		
	C. PREPARED	X		

SIGNATURE Leroy W Pate

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
	400	BDU-33 PRACTICE					
	10	MK-106, PRACTICE					
	✓	MK-4, SIGNALS	✓				
	✓	20MM T.P.					
	✓	DIESEL FUEL					
	25	C-4					
	25	Time Fuse					
	2	Blasting Caps					
		Total					

THIS INSPECTION LOG SHEET MUST BE RETAINED ON FILE FOR A PERIOD OF THREE (3) YEARS FROM DATE OF INSPECTION IAW NEW MEXICO ENVIORNMENTAL IMPROVEMENT DEVISION REGULATIONS.

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 1 MAR 91 TIME 1200

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	X		
	B. GATES	X		
	C. SIGNS	X		
FUEL REQUIREMENTS	A. DIESEL	X		
	B. CONTAINER	X		
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	X		
	D. FIRE EQUIP	X		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	X		
	B. GRADED	X		
	C. PREPARED	✓		

SIGNATURE [signature]

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
	✓	BDU-33 PRACTICE					
	✓	MK-106, PRACTICE					
	2	MK-4, SIGNALS	.1207				
	✓	20MM T.P.					
	2Gal	DIESEL FUEL					
	20	CTG. 7.62	.012				
	1250	[illegible]	[illegible]				
	3	[illegible]	.1017				
	60	[illegible]	[illegible]				
	[illegible]	[illegible]	[illegible]				
	[illegible]	[illegible]	[illegible]				
		Total	[illegible]				

THIS INSPECTION LOG SHEET MUST BE RETAINED ON FILE FOR A PERIOD OF THREE (3) YEARS FROM DATE OF INSPECTION IAW NEW MEXICO ENVIORNMENTAL IMPROVEMENT DEVISION REGULATIONS.

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 29 Mar 11 TIME 0700

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	X		
	B. GATES	X		
	C. SIGNS	X		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	X		
	B. CHARGED	X		
	C. SEALS	X		
	D. FIRE EQUIP	X		
COMMUNCATIONS EQUIPEMENT	A. RADIO	X		
	B. OPERATIONAL	X		
RANGE CONDITIONS	A. PIT	X		
	B. GRADED	X		
	C. PREPARED	X		

SIGNATURE [signature]

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 03 May 91 TIME 0730

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	X		
	B. GATES	X		
	C. SIGNS	X		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	X		
	B. CHARGED	X		
	C. SEALS	X		
	D. FIRE EQUIP	X		
COMMUNCATIONS EQUIPEMENT	A. RADIO	X		
	B. OPERATIONAL	X		
RANGE CONDITIONS	A. PIT	X		
	B. GRADED	X		
	C. PREPARED	X		

SIGNATURE [signature]

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 05 April TIME 0722

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL	n/a		
	B. CONTAINER	n/a		
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	✓		
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE

DEPARTMENT OF THE AIR FORCE
27th Medical Group (TAC)
Cannon AFB, New Mexico 88103-5364

M: SGPB

BJECT: Results of EOD Burn Pit Soil Samples

: 27 CSG/DEV

Attached are copies of the analysis of the soil sample obtain
Melrose Range EOD Burn Pit. The sample numbers are GS7007
700230.

As the results show, the concentrations of all parameters we
an the detection limit and/or the limits for characterization
zardous waste.

If you have any questions, please feel free to call me at ext

RICE A. MELANCON, 1Lt, USAF, BSC
f, Bioenvironmental Engineering

1 Atch
Sample R

ULK MATERIAL SAMPLING DATA

(Place for mechanical imprint)

OEHL USE ONLY

WORKPLACE OR SITE IDENTIFIER

BASE

Cannon AFB

WORKPLACE OR SITE

EOD Burn Pit

BLDG NO/LOCATION

ECTED (YYMMDD)

0 9 5 2 2

ORIGINAL	0	9	2	8	3	27 Med Gp (SGPB)/SGPB Cannon AFB, NM 88103
COPY 1	0	9	2	8		27 CSG/DEV Cannon AFB, NM 88103
COPY 2						

COLLECTED BY (Name, Grade, AFSC)

[illegible] 2Lt 9121

SIGNATURE

OR ON: R

A-ACCIDENT/INCIDENT C-COMPLAINT F-FOLLOWUP/CLEANUP

B-ROUTINE BACKGROUND/PERIODIC SURVEY Z-OTHER

ING SAMPLED

... from Burn Pit - req'd by Dan B. [illegible]

CONTROLS (Personal protective equipment, Engineering, Administrative)

N/A

SAMPLE COLLECTION DATA

MPLE NO

MPLE NO: CS900231

A	CHECK FOR	☐ MAJOR COMPONENTS	☐ MAJOR COMPONENTS
B	NAME	Reactivity	
	NIOSH NO		
C	NAME	EP Tox - Metals	
	NIOSH NO		
D	NAME		
	NIOSH NO		
E	CHECK FOR	☐ HAZARDOUS/TOXIC WASTE	☐ HAZARDOUS/TOXIC WASTE

AME

R

ION (MIL or FED)

URER'S NAME

N OF MATERIAL (ted, brushed,

Munitions detonated in pit area.

ING S

OEHL SAMPLE NO	
BASE SAMPLE NO	
SAMPLE TYPE	

RA Sample

RM 2751

AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY
BROOKS AFB, TEXAS, 78235-5501

REPORT OF ANALYSIS

BASE SAMPLE NO: GS900230

SAMPLE TYPE: SOIL

SITE IDENTIFIER: RDRG600A DATE RECEIVED: 900529

DATE COLLECTED: 900522 DATE REPORTED: 900606

SAMPLE SUBMITTED BY: 27 MEDICAL GROUP (TAC)/SGPB

PRESERVATION GROUP A, B, C OEHL SAMPLE NUMBER: 900336B0

Test	Results	Units
Oil & Grease (IR)	<0.002	mg/G

Comments:
Specifies none detected and the detection limit.

Approved by: _____

Daryl S. Bird, GS-12
Chief, Inorganic Analysis

TO:

27 MEDICAL GROUP (TAC)/SGPB
CANNON AFB NM 88103-5300

ATORY ANALYSIS REPORT AND RECORD (General) DATE: 8 JUL 1

FROM:

PLE IDENTITY Soil | DATE RECEIVED:

PLE FROM | LAB CONTROL:

T FOR

Workcenter I.D. MK-90-19 Date Received: May 31, 1990

Base #: GS900231 Date Started: May 31, 1990

OEHL #: 033678 Date Completed: June 13, 1990

Lab #: 9009530

Parameter	Concentration	Count Limit	Method
oxicity (mg/L):			1310
Arsenic	<0.5	0.5	6010
Barium	<10	10	6010
Cadmium	<0.1	0.1	6010
Chromium	<0.5	0.5	6010
Lead	<0.5	0.5	6010
Mercury	<0.02	0.02	7470
Selenium	<0.1	0.1	6010
Silver	<0.5	0.5	6010
tivity (mg/kg dry weight):			SW846Ch.8.3
Cyanide	<0.26	0.26	
Sulfide	<12.8	12.8	

MICHAEL J. WAHLAND, 1Lt, USAF
NCOIC Occupational Chemistry Branch

SAMPLES ANALYSED BY CONTRACT

REQUESTING AGENCY (MAILING ADDRESS)
non AFB
Medical Group (TAC)/SGPB
non AFB, NM 88103-5300

Analyzed by Biospherics Incorporated

ENVIRONMENTAL SAMPLING DATA

(this space for mechanical imprint)

OEHL USE ONLY

SAMPLING SITE IDENTIFIER (AFR 19-7): 0028 RDRG 600

BASE WHERE SAMPLE COLLECTED: CANNON AFB

SAMPLING SITE DESCRIPTION: EOD BURN PIT (See Attch Drawing)

DATE COLLECTION BEGAN (YYMMDD): 900522

TIME COLLECTION BEGAN (24 hour clock): 0830

COLLECTION METHOD: ☐ GRAB ☒ COMPOSITE 9 SITES ~~HOURS~~

MAIL REPORTS TO (circle if changed)

ORIGINAL	00287	27 Med GP(TAC)/SGPB Cannon AFB, NM 88103-5000
COPY 1	00287	27 CSG/DEV Cannon AFB, NM 88103-5000
COPY 2		

SAMPLE COLLECTED BY (Name, Grade, AFSC): ELANCON 2Lt 9121

SIGNATURE: [signature]

AUTOVON: 681-4063

REASON FOR EMISSION: E R

A-ACCIDENT/INCIDENT R-ROUTINE/PERIODIC C-COMPLAINT N-NPDES F-FOLLOWUP/CLEANUP O-OTHER (specify)

BASE SAMPLE NUMBER: GS 90 0330

OEHL PID:

ANALYSES REQUESTED (Check appropriate blocks)

GROUP A		Hardness	00900	Silica	00955	2, 4, 5-T	39740
Ammonia	00610	Iron	01045	Specific Conductance	00095	2, 4, 5-TP-Silvex	39760
Chemical Oxygen Demand	00340	Lead	01051	Sulfate	00945		
Kjeldahl Nitrogen	00625	Magnesium	00927	Surfactans-MBAS	38260		
Nitrate	00620	Manganese	01055	Turbidity	00076		
Nitrite	00615	Mercury	71900				
Oil & Grease	00560	Nickel	01067				
Organic Carbon	00680	Potassium	00937				
Orthophosphate	00671	Selenium	01147	GROUP H			
Phosphorus, Total	00665	Silver	01077	Aldrin	39330		
		Sodium	00929	BHC Isomers	39340		
GROUP D		Thallium	01059	a-BHC	39337		
Cyanide, Total	00720	Zinc	01092	b-BHC	39338		
Cyanide, Free	00722			d-BHC	34259		
				Chlordane	39350	GROUP J	
GROUP E		GROUP G		DDT Isomers	39370	Sulfides	00745
Phenols	32730	Acidity, Total	70508	p, p-DDD	39310		
		Alkalinity, Total	00410	p, p-DDE	39320		
GROUP F		Alkalinity, Bicarbonate	00425	p, p-DDT	39300		
Antimony	01097	Bromide	71870	Dieldrin	39380	ON SITE ANALYSES	
Arsenic	01002	Carbon Dioxide	00405	Dursban	77969	PARAMETER	VALUE
Barium	01007	Chloride	00940	Endrin	39390	Flow 50050	mgd
Beryllium	01012	Color	00080	Heptachlor	39410	Chlorine, Total 50060	mg/l
Boron	01022	Fluoride	00951	Heptachlor Epoxide	39420	Dissolved Oxygen 00300	mg/l
Cadmium	01027	Residue, Total	00500	Lindane	39782	pH 00400	units
Calcium	00916	Residue, Filterable (TDS)	70300	Methoxychlor	39480	Temperature 00010	°C
Chromium, Total	01034	Residue, Nonfilterable	00530	Framitol (Framaton)	XY4200000	Odor 00086	
Chromium VI	01032	Residue, Settleable	50085	Toxaphene	39400	Iodide 71865	
Copper	01042	Residue, Volatile	00505	2, 4-D	39730	Sulfite 00740	

REMARKS

RA Sample

FORM 2752A AF FORMS 2752A AND 2752B, FEB 85, REPLACE AF FORM 2752, JAN 81, WHICH WILL BE USED.

BULK MATERIAL SAMPLING DATA

(Use this space for mechanical imprint)

OEHL USE ONLY

WORKPLACE OR SITE IDENTIFIER: 0 0 2 8 R D R G [illegible] A

BASE: Cannon AFB

ORGANIZATION: 27 ABG

WORKPLACE OR SITE: EOD Burn Pit (See Attch Drwg)

DATE COLLECTED (YYMMDD): 9 0 0 9 5 2 2 4

BLDG NO./LOCATION: —

ROOM/AREA: —

MAIL REPORTS TO (circle if change)

ORIGINAL: 0 0 2 8 7 27 Med Gp (TAC)/SGPO Cannon AFB, NM 88103-5320

COPY 1: 0 0 2 8 3 27 CSG/DEV Cannon AFB, NM 88103-5000

COPY 2:

SAMPLE COLLECTED BY (Name, Grade, AFSC): MELANSON 2Lt 9121

SIGNATURE:

AUTOVON: 681-4083

REASON FOR SUBMISSION: R

A-ACCIDENT/INCIDENT C-COMPLAINT F-FOLLOWUP/CLEANUP
R-ROUTINE BACKGROUND/PERIODIC SURVEY O-OTHER

OEHL PID:

SOURCE BEING SAMPLED: Soil from Burn Pit - regd by Part B Permit

EXISTING CONTROLS (Personal protective equipment, Engineering, Administrative): N/A

SAMPLE COLLECTION DATA

OEHL SAMPLE NO			
BASE SAMPLE NO		GS90023 1	
A	CHECK FOR	☐ MAJOR COMPONENTS	☐ MAJOR COMPONENTS
B	NAME	Reactivity	
	NIOSH NO		
C	NAME	EP Tox - Metals	
	NIOSH NO.		
D	NAME		
	NIOSH NO		
E	CHECK FOR	☐ HAZARDOUS/TOXIC WASTE	☐ HAZARDOUS/TOXIC WASTE
MATERIAL NAME		Soil	
LOT NUMBER		—	
NSN (FSN)		—	
SPECIFICATION (MIL or FED)		—	
MANUFACTURER'S NAME		—	
DESCRIPTON OF MATERIAL USAGE (Healed, brushed, sprayed, etc.)		Munitions detonated in pit area.	
SUPPORTING SAMPLES	OEHL SAMPLE NO.		
	BASE SAMPLE NO.		
	SAMPLE TYPE		

COMMENTS: RCRA Sample

AF FORM JAN 81 2751

EOA Burn Pit

AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY
BROOKS AFB, TEXAS, 78235-5501

REPORT OF ANALYSIS

BASE SAMPLE NO: GS900230

SAMPLE TYPE: SOIL

SITE IDENTIFIER: RDRG600A DATE RECEIVED: 900529

DATE COLLECTED: 900522 DATE REPORTED: 900606

SAMPLE SUBMITTED BY: 27 MEDICAL GROUP (TAC)/SGPB

PRESERVATION GROUP A, B, C OEHL SAMPLE NUMBER: 90033680

Test	Results	Units
Oil & Grease (IR)	<0.002	mg/G

Comments:

< - Signifies none detected and the detection limits

Approved by: Duryl S. Bird

Duryl S. Bird, GS-12
Chief, Inorganic Analysis

TO:

27 MEDICAL GROUP (TAC)/SGPB
CANNON AFB NM 88103-5300

LABORATORY ANALYSIS REPORT A[illegible] RECORD (General)	DATE[illegible] 8 JUN 1990
TO:	FROM:
SAMPLE IDENITY Soil	DATE RECEIVED
SAMPLE FROM	LAB CONTROL NR
TEST FOR	

Workcenter I.D. MK-90-19 Date Received: May 31, 1990

Base # GS900231 Date Started: May 31, 1990

OEHL # 033678 Date Completed: June 13, 1990

Lab # 9009530

Parameter	Concentration	Quant. Limit	Method
EP Toxicity (mg/L):			1310
Arsenic	<0.5	0.5	6010
Barium	<10	10	6010
Cadmium	<0.1	0.1	6010
Chromium	<0.5	0.5	6010
Lead	<0.5	0.5	6010
Mercury	<0.02	0.02	7470
Selenium	<0.1	0.1	6010
Silver	<0.5	0.5	6010
Reactivity (mg/kg dry weight):			SW846Ch.8.3
Cyanide	<0.26	0.26	
Sulfide	<12.8	12.8	

MICHAEL J. WANTLAND, TSgt, USAF
NCOIC Occupational Chemistry Branch

SAMPLES ANALYSED BY CONTRACT LAB

REQUESTING AGENCY (MAILING ADDRESS)
Cannon AFB
27 Medical Group (TAC)/SGPB
Cannon AFB, NM 88103-5300

Analyzed by Biospherics Incorporated

PERFORMANCE REQUIREMENTS SUMMARY

REQUIRED SERVICE	STANDARD	PERFORMANCE REQUIREMENT	METHOD OF SURVEILLANCE	MAXIMUM PAYMENT PERCENTAGE FOR MEETING THE PERFORMANCE REQUIREMENT
RS-1 ENVIRONMENTAL MAINTENANCE Para 5.5.3.	(1) Contractor shall ensure that hazardous materials are removed from target vehicles prior to placing on the range target area.	0 Lot: is the number of operational days in the month	Monthly Checklist	5%
	(2) All hazardous materials shall be handled and disposed of in accordance with all Federal, State, and Local Laws and Regulations.	0 Lot: Is the number of operational days in the month	Monthly Checklist	5%
RS-2 PREPARE AND MAINTAIN DAILY EVENTS AND MAINTENANCE LOGS Para 5.7.9. Para 5.7.10.	Prepare and maintain daily events log of all pertinent actions on range such as important telephone conversations, cleared area releases, fires, crashes, ineffective or lost sorties, etc. Prepare and maintain a log of all maintenance functions performed on the range.	3 Lot: is the number of operational days in the month	Daily Checklist	5%
RS-3 RANGE PREPARATION 5.6.11.	Ensure operational readiness of all range targets, scoring equipment, voice recordings, communications and support systems, not later than 20 minutes prior to any scheduled opening range period.	0 Lot: Is number of range periods in the month	Daily Checklist	15%

AF FORM 713 PERFORMANCE REQUIREMENTS SUMMARY

ATCH 14

TE 1-7

REQUIRED SERVICE	STANDARD	PERFORMANCE REQUIREMENT	METHOD SURVEILLANCE	DEDUCTION PAYMENT PERCENTAGE FOR MEETING THE PERFORMANCE REQUIREMENT
RS-7 CONTROL OF TRAFFIC IN IMPACT AREA Para 1.5.3., Para 1.5.4.,	(1) Contractor shall restrict range entry on the primary access route to the weapons impact area and maintenance compound.	0 Lot: Is number of range periods in the month	Daily Checklist	10%
	(2) Contractor shall keep access gates to the impact area locked during bombing operations unless otherwise authorized by the RCO	0 Lot: Is number of range periods in the month	Daily Checklist	2%
RS-8 PERFORM MAINTENANCE AND CONSTRUCTION OF TARGETS Paras 5.5., 5.5.4.4.2., 5.5.4.3.1., 5.5.4.4.3., 5.5.4.5.3.	(1) Contractor shall provide effective management and supervision of range administration, operations, maintenance, decontamination, and clearance.	0 Lot: Is number of operational days in the month	Weekly Checklist	5%
	(2) Contractor shall perform scheduled target maintenance which is accomplished on a periodic recurring basis.	0 Lot: Is number of times maintenance performed times number of weeks in the month	Weekly Checklist	5%
	(3) Contractor shall perform unscheduled maintenance which provides short notice repair to unacceptable target damage.	0 Lot: Is number of unscheduled repairs to target equipment	As Required Checklist	5%
	(4) Contractor shall replace target vehicles in the exact surveyed location of the removed target vehicles.	0 Lot: Is number of times target vehicles are replaced	As Required	5%

SERVICE		REQUIREMENT	SURVEILLANCE	PERFORMANCE REQUIREMENT
RS-4 STRAFE PIT AND AREA MAINTENANCE Para 5.5.4.1.1. thru 5.5.4.1.9.	(1) Disc plow each strafe impact area approximately (100 x 1000 ft) at least weekly or every six range use days to maintain loose soil at least 12 inches deep. Strafe area shall be cleared of projectiles, fused brass, etc.	1 Lot: Is the number of times maintenance performed times the number of weeks in the month	Weekly Checklist	4%
	(2) Contractor shall replace unserviceable strafe traget panels, suspension cables and tale-up reels.	1 Lot: Is same as Item 1	Weekly Checklist	4%
	(3) Contractor shall maintain strafe berms IAW TAC SUP 1 to AFR 50-46.	1 Lot: Is same as Item 1	Weekly Checklist	1%
	(4) Contractor shall maintain the foul lines IAW TE 15	1 Lot: Is same as Item 1	Weekly Checklist	1%
RS-5 TOSS OPERATION AND MAINTENANCE Paras 5.6.1.1. thru 5.6.2.2. and TE 6	(1) Ensure TOSS is operational 20 minutes before first scheduled range period of the day.	0 Lot: Is the number of operational days in the month	Daily Checklist	5%
	(2) Contractor shall maintain TOSS at a rate of 95% operational readiness per year.	0 Lot: Is the number of range periods per year	Quarterly Checklist	10%
RS-6 RECURRING REPORTS TE 2-1, Para 1.2. Para 5.6.2.2.	Prepare recurring quarterly reports based upon information obtained thru compilation of Operations and Maintenance Data such as: TAC Form 156, AF Form 457, TAC-DOX (Q) 7301, Range Historical Report, CAFB Form 7, Inspection and Maintenance Record.	3 Lot: Is number of reports to be prepared	Quarterly Checklist	5%

REQUIRED SERVICE	STANDARD	PERFORMANCE REQUIREMENT	METHOD OF SURVEILLANCE	MEETING THE PERFORMANCE
RS-9 PERFORM MAINTENANCE TO GATES, FENCES, SIGNS Para 5.9.1.11.4.	Contractor shall inspect, repair, and maintain gates, fences, and signs as required to ensure a viable impediment to unauthorized access.	C Lot: Is number of times maintenance performed times number of weeks in the month	As Required Checklist	3%
RS-10 EOD DISPOSAL RANGE/ THERMAL TREATMENT PIT MAINTENANCE 5.12.7.1.	Contractor shall grade and clear an area to a radius of 500 feet from the center of the Thermal Treatment Pit. This area shall be kept free of all combustible material and vegetation.	3 Lot: Is the number of operational days in the month	Daily Checklist	5%

AF FORM 713 PERFORMANCE REQUIREMENTS SUMMARY

MELROSE AIR FORCE RANGE TREATMENT
FACILITY WEEKLY INSPECTION LOG

Point of Contact:

Building #:

Telephone #:

Date of Inspection: TIME of Inspection:

	Yes	No	Comments:
1. How does the TSD know what it's receiving (e.g., process knowledge or testing)?[HW]			
2. Are there records showing types and quantities of HW received from on base or off base SAPs or APs?[HW]			
3. Are containers clearly marked as to their contents? (264.)[HW]			
4. Are containers maintained in good condition? (264.171)[HW]			
5. Are containers compatible with contents? (264.172)[HW]			
6. Are containers closed when not in use? (264.173(a))[HW]			
7. Are containers managed to avoid ruptures or leaks? (264.173(b))[HW]			
8. Are inspections of the TSD performed weekly? (264.174)[HW] Are the records of these inspections kept on file for 3 years? (264.73)[HW 61.2]			
9. Do the inspections look for leaks and corrosion? (264.174)[HW]			
10. Are containers of ignitable HW at least 15 meters (50 ft.) from the property line? (264.176)[HW]			

ATCH 15

	Yes	No	Comments:
11. Are incompatible wastes stored in the same container? (264.177(a)) [HW]			
12. Are HW stored in unwashed containers that previously held an incompatible waste? (264.177(b)) [HW]			
13. Are HW that are incompatible with other HW, stored "nearby" the other HW without adequate separation? (264.177))[HW]			
14. If HW are stored in tanks, consult Subpart J of Sec. 264.[HW]			
15. If the TSD is being closed, consult 264.111 and 264.114.[HW]			
16. Are TSD personnel trained in HW management, emerg. procedures and emerg. equipment (OJT or classroom training) including unique facility standards? (264.16(a)(3))[HW]			
17. Is the trainer of these personnel trained in hazardous waste management procedures? (264.16(a)(2)) [HW]			
18. Is training conducted w/in 6 months of initial assignment and movement to new positions? (264.16(b))[HW]			
19. Until such training is conducted, do employees work in supervised positions? (264.16(b))[HW]			
20. Is an annual review of this training conducted by each employee? (264.16(c))[HW]			
21. Are RCRA training records properly maintained: (264.16(d))[HW]			
a. Job title for each position relating to HW management?			

	Yes	No	Comments:
b. Employee name in each position?			
c. Written job description for each position w/specificity as to duties, skill, educat., and other qualifications?			
d. Written description of type and amount of introductory and continuing training for each position listed above?			
e. Records that document that the training or OJT has been given and completed?			
22. Are training records kept for current employees until facility closure, and past employees for at least 3 years (but records can be transferred to new job)? (264.16(e)) [HW]			
23. Are those who work with HM or HW receiving OSHA HAZWOPER training? (29 CFR 1910.120)[HW]			
24. Are those who work with HM or HW receiving OSHA HAZCOM training? (29 CFR 1910.1200)[HW]			
25. TSD maintained to minimize fire, explosion, unplanned sudden or nonsudden releases of HW (e.g., HW signs, No Smoking signs, proper grounding, etc.)? (264.31)[HW]			
26. TSD has internal comm. or alarm system to alert facility personnel in emergencies? (264.32(a))[HW]			
27. TSD has telephone (or other device) "immediately available at the scene of operations" to summon emergency assistance? (264.32(b)) [HW]			

	Yes	No	Comments:
28. TSD has portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment? (264.32(c))[HW]			
29. TSD has water at adequate volume and pressure to supply water hose streams, water sprinklers, or other devices? (264.32(d))[HW]			
30. Is this emergency comm. and response equipment listed above maintained and tested, and is this documented? (264.33)[HW]			
31. When HW is being handled at the TSD, do personnel involved have access to the equipment in item 26 above? (264.34(b))[HW]			
32. When only one employee is present at the TSD, does s/he have access to the equipment in item 27 above? (264.34(b))[HW]			
33. Is the TSDs aisle space sufficient to allow unobstructed movement of personnel in an emergency? (264.35) [HW]			
34. Arrangements made to familiarize SPs, fire department, and emergency response teams with layout and hazards of the TSD? (264.37(a)(1))[HW]			
35. Arrangements made to familiarize SG w/hazardous wastes handled at the TSD? (264.37(a)(4))[HW]			
36. Where state/local authorities will respond to emergencies, are arrangements made to make them aware of 34 and 35? (264.37(a))[HW]			

	Yes	No	Comments:
37. Where state/local authorities would respond, but decline to enter into any arrangements, is this documented in the TSD operating record? (264.37(b))[HW]			
38. TSD have a current copy of the base SPCC/HWCP? (264.51)[HW]			
39. Does the SPCC/HWCP meet the requirements of 264.52, and is it accurate in regard to the TSD?[HW]			
40. Does the SPCC/HWCP contain names and telephone numbers of the TSD's ECs, & does it reflect changes in regulations, the facility, and emergency equipment? (264.54)[HW]			
41. Who is/are the TSD's Emergency Coordinators? (264.55)[HW]			
42. Is one of the TSD's ECs at the facility or on call at all times? (264.55) [HW]			
43. Are the TSD's ECs familiar with their duties under 264.56?			
44. Are there any floor drains? Does the TSD manager know where they go?			
45. Have there been any releases, spills, or overfills? How were they managed?			
46. As to the TSD's secondary containment, is it effective (e.g., if a pan, is the drain plug closed; if painted, is it really impervious), is it tested, and are results documented?			
47. If TSD is outside, what do they do with rainwater? Is it ever tested?			

	Yes	No	Comments:
48. Hazardous Materials:			
a. Are DRMO resale products being properly managed as HM or HW?			
b.			
c.			
d.			
49. Permit standards:			
a.			
b.			
c.			
d.			
50. As for munitions activities:			
a. Does the facility have a Subpart X Waste Ordnance Treatment facility? If so, is it managed IAW the permit?			
b. Is waste ordnance manifested to the treatment facility?(264.)[HW]			
c. Does the installation have a transporter identification number to transport the waste ordnance?(263.) [HW]			
d. Do LDR notices accompany the shipment of this waste ordnance?(268.)[HW]			
e. Is the ash from OB/OD/SF tested? What are the results? If a HW, how is it managed?(262.11)[HW]			
f. Is the ordnance transported to the treatment facility, and any resultant HW ash included in the base's an-			

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	Yes	No	Comments:
nual/biennial generator report? (262.)[HW]			
g. Does the treatment facility report in its annual/biennial TSD report all of the ordnance that is treated there? (264.)[HW]			
h. In terms of emergency response to off base ordnance issues (e.g., pipe bombs on the economy), have emergency procedures with state and local officials been coordinated in advance? (270.61) [HW 9]			
51. Unique State/Local requirements:			
a.			
b.			
c.			
d.			
52. Select 8-10 different entries in the facilities HW log for HW that are currently being stored; go to the storage area and see if you can find them, if they have the proper labeling, and if they are stored in the area that the log indicates.(264.)[HW]			
53. While in the storage area, select 8-10 different HWs, and see if the codes are reflected in the generator ID # and Part A/B permit applications as the types of wastes managed at the facility.(264.)[HW]			
54. Compare the yearly/biennial generator and TSD reports with the generator ID # and Part A/B permit applications: are the same RCRA HW ID#s being reported?(264.)[HW]			

	Yes	No	Comments:
55. Select 8-10 different entries in the facilities HW log for HW that are currently being stored or have been stored: are they the same RCRA HW ID#s that are reported in the yearly/ biennial generator and TSD reports, and the generator ID # and Part A/B permit applications?(262. ,264.) [HW]			
56. Does the annual/biennial TSD report inlcude all of the HW managed by the TSD, not just HW generated by the host facility? (264.) [HW]			
57. Select 8-10 manifests and see if there is an LDR notice directly associated with each manifest. (268.7(a)(1)(iii)) [HW 156]			
58. With these manifests and their associated LDR notices; are there appropriate LDR notices for each of the RCRA HW ID# codes reflected in the manifests? (268.)[HW]			
59. With these same manifests, are the destinations and addresses the same as reported in the yearly/ biennial TSD report? (264.) [HW]			
60. With these same manifests, are the RCRA HW ID#s the same as reported in the Part A/B permit application and the yearly/biennial TSD report? (264.) [HW]			
61. With these same manifests, see if the Waste Analysis and Characterization Plan and the analyses done of the manifested wastes, support the conclusions as to the RCRA identity of the nature of what was manifested (as well as the LDR notices accompanying the manifests.(264.) [HW]			

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	Yes	No	Comments:
62. Are waste analyses, when available, being sent along with the LDR notices? (268.7(a)(1)(iv))[HW 156]			
63. Record requirements for the waste ordnance activity (264.) [HW]			
a. Training records for 3 years.			
b. Inspection records for 3 years.			
c. Manifests for 3 years.			
d. LDR notices for 5 years.			
e. Operating records/logs for 3 years.			
f. Waste analyses for the life of the facility.			
64. Inspect the waste ordnance activity			
a. Hazardous Waste Contingency Plan (HWCP)			
b. Hazardous Waste Management Plan (HWMP).			
c. Hazardous Waste Minimization Plan (HWMP)			
d. Hazardous Waste Analysis and Characterization Plan (HWACP)			
e. Closure Plan.			
65. Does the Part B Permit application accurately reflect current TSD conditons? (270.14(b)(7) [HW46.1]			
66. Has the TSD ever been inspected before? a. When and by whom? b. Results?			

	Yes	No	Comments:
67. Did you inform your Point of Contact of the inspection results?			
68. Should you immediately notify the Team Chief of any discrepancies you found?			
69. Are there any improvements in managing the AP that you could recommend?			
70. Are there any positive aspects of the TSD worth noting?			

71. Additional observations:

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 28 June 91 TIME 1300

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	✓		
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE [signature]

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	NEW B/D	Total NEW TARGETS CLEARED	M/HR	PERSONNEL	DATE
N/A	246	BDU-33 PRACTICE	.0013	.3198			
N/A	24	MK-106, PRACTICE	.0013	.0312			
N/A	5	MK-4, SIGNALS	.0013	.0065			
N/A	Ø	20MM T.P.	N/A	—			
N/A	N/A	DIESEL FUEL	N/A	—			
	83	Initiator M60-11	.0047	.5810			
	1	MK6 [illegible]	[illegible]	.2120			
	50	M3702 [illegible]	.1431	7.1850			
	2	M115A [illegible]	.1415	.4230			
	13	Cart, [illegible]	.0005	.0065			
	19	Cart, .25 [illegible]	.0005	.0095			
	1	.38 Cal [illegible]	[illegible]	.0008			
	68	.22 Cal [illegible]	[illegible]	.0204			
	8	5.56mm [illegible]	.0011	.0088			
	1	Cart [illegible]	[illegible]	.0001			
	3	[illegible]	[illegible]	.0066			
	7	Initiator [illegible]	[illegible]	.0049			
	1	[illegible]	3.00 [illegible]	3.0000			
	2	[illegible]	[illegible]	.1400			
	1	[illegible]	[illegible]	.0005			
	2	Det Cord [illegible]	[illegible]	.0016			
	2	" " "	[illegible]	[illegible]			
	2	" " "	[illegible]	.0012			
	1	" " "	[illegible]	.0021			
	3	[illegible]	[illegible]	.0021			
	5	[illegible]	[illegible]	.0045			
	2	[illegible]	[illegible]	.0020			
	2	Initiator	[illegible]	.0138			
	4	" "	[illegible]	.0128			
	1	Hand Grenade	[illegible]	.7250			
	1	Det Cord [illegible]	[illegible]	.0007			
	5	" " "	[illegible]	.0040			
	1	" " "	[illegible]	.0010			
	15	Det Cord	[illegible]	10.5000			
	3	[illegible]	.500	1.5003			
	5	RR141 Chaff	[illegible]	.0020			
	2	Simulator [illegible]	.0813	.1626			
	2	[illegible]	[illegible]	.7200			
	1	Time Delay	[illegible]	.0018			
	3	" "	[illegible]	.0109			
	1	" "	[illegible]	.0018			
	3	Initiator	[illegible]	.0181			
		Total		51.9808			

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FROM DATE OF INSPECTION IAW NEW MEXICO ENVIRONMENTAL IMPROVEMENT DE[illegible] [illegible]

EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 02 Aug 91 TIME 0700

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL			N/A
	B. CONTAINER			N/A
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	✓		
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE [signature]

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	E/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
		BDU-33 PRACTICE					
		MK-106, PRACTICE					
		MK-4, SIGNALS					
		20MM T.P.					
		DIESEL FUEL					

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EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 28 Sep 11 TIME 0730

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL			N/A
	B. CONTAINER			N/A
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	✓		
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	E/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
		BDU-33 PRACTICE					
		MK-106, PRACTICE					
		MK-4, SIGNALS					
		20MM T.P.					
		DIESEL FUEL					

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EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 31 Jan 92 TIME 0700

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		
FUEL REQUIREMENTS	A. DIESEL	N/A		
	B. CONTAINER	N/A		
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT	✓		
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
		BDU-33 PRACTICE					
		MK-106, PRACTICE					
		MK-4, SIGNALS					
		20MM T.P.					
		DIESEL FUEL					

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EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 18 Feb 12 TIME 11:00

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		Need 3
FUEL REQUIREMENTS	A. DIESEL			N/A
	B. CONTAINER			N/A
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE HOUSE	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT			N/A
	B. GRASS	✓		
	C. DEBRIS			N/A

SIGNATURE

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	B/D	TARGETS CLEARED	M/HR	PERSONNEL	DATE
		BDU-33 PRACTICE					
		MK-106, PRACTICE					
		MK-4, SIGNALS					
		20MM T.P.					
		DIESEL FUEL					

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EXPLOSIVE ORDNANCE DISPOSAL THERMAL TREATMENT FACILITY

INSPECTION LOG

DATE 27 Mar 92 TIME 0900

ITEM	CONDITIONS	STATUS SAT	STATUS UNSAT	REMARKS
SECURITY	A. FENCING	✓		
	B. GATES	✓		
	C. SIGNS	✓		need 3
FUEL REQUIREMENTS	A. DIESEL			N/A
	B. CONTAINER			N/A
FIRE PROTECTION	A. EXTINGUISHERS	✓		
	B. CHARGED	✓		
	C. SEALS	✓		
	D. FIRE EQUIP	✓		
COMMUNCATIONS EQUIPEMENT	A. RADIO	✓		
	B. OPERATIONAL	✓		
RANGE CONDITIONS	A. PIT			N/A
	B. GRADED	✓		
	C. PREPARED	✓		

SIGNATURE Tony Diaz

LISTING OF MATERIAL

ADR NUMBER	QTY	NOMENCLATURE	~~B/D~~ New	Total New TARGETS CLEARED	M/HR	PERSONNEL	DATE
		BDU-33 PRACTICE					
		MK-106, PRACTICE					
		MK-4, SIGNALS					
		20MM T.P.					
		DIESEL FUEL					
	2	Delay, Initiator	.0022	.0044			
	1	Initiator	.0016	.0016			
	1	Card Assembly Det	.0013	.0013			
	1	Card Assembly Det	.0013	.0013			
	390	BR-119 A/C Flare	1.5	585.0			
	1	Fuze FMU 54	.3431	.3431			
	55	Impulse Cart	.0040	.22			
	1	Af Cart	.0009	.0009			
	1	Explosive Kit	.0052	.0052			
	1	Explosive kit	.0052	.0052			
				585.583			

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