NM -

# PHASE I & II ASSESSMENT MONITORING REPORTS

YEAR(S):

2005

# PHASE I AND PHASE II ENVIRONMENTAL SITE ASSESSMENT AND SITE RESTORATION REPORT JAMAR OIL PROCESSING AND TREATING PLANT MONUMENT, LEA COUNTY, NEW MEXICO

Topical Report RSI-1832

Nm-0-014

by

John R. Bunch
David A. Henard

RESPEC 4775 Indian School Road NE, Suite 300 Albuquerque, New Mexico 87110

prepared for

Oil Conservation Division
Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

### **EXECUTIVE SUMMARY**

RESPEC was retained by the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department of the State of New Mexico to perform a Phase I and Phase II Environmental Site Assessment (ESA) and Site Restoration of the property known as the JAMAR Oil Processing and Treating Plant site, located 2.7 miles south of Monument, New Mexico, along State Route 8 in Lea County, New Mexico (hereafter referred to as "the subject property"). The ESA and property restoration were performed in a manner consistent with the methods and procedures described in the latest version of the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

The objective of RESPEC's ESA was to evaluate whether current or past activities on or adjacent to the subject property may have resulted in significant contamination by hazardous materials or wastes, a condition subsequently referred to in this report as a "Recognized Environmental Condition."

The objective of the Site Restoration was to remove from the site any known tanks and, to the extent feasible, contaminated soil, fluids, and debris identified during the ESA portion of the project.

RESPEC's scope of services for the Phase I and Phase II ESA and Site Restoration consisted of the following:

- An inspection of the subject property and nearby area.
- A review of historical information about activities on the subject property.
- A review of readily available regulatory information concerning the subject property and nearby properties of environmental concern.
- An investigation of the extent of total petroleum hydrocarbons, chloride, and total dissolved solids in the soil and groundwater of the subject property.
- An investigation to determine if groundwater had been impacted as a result of an on-site release or on-site operations.
- The decommissioning, decontamination, and removal of 15 aboveground storage tanks for recycling.
- The removal of contaminated soil, fluids, and debris for off-site disposal.
- The preparation of this report detailing RESPEC's results, conclusions, and recommendations.

The subject property is located in the SE/4 of Section 8, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. (A vicinity map is presented as Figure 1 and a site map is presented as Figure 2.) The search radius for facilities of potential environmental concern in the vicinity of the subject property is in conformance with ASTM Standard E1527-00. Based on its site inspection and review of available information, RESPEC identified on-site sources that have created, or have the potential to create, a Recognized Environmental Condition.

Recognized Environmental Conditions identified during the ESA phase of the project included:

- 20 large-capacity steel aboveground storage tanks.
- Solids and fluids of unknown composition in the aboveground tanks.
- Hydrocarbon-stained surface soils.
- Four large debris piles containing wood, steel, iron, and trash.
- Two small outbuildings and one small office building of unknown age and contents.

Site restoration procedures were implemented for the conditions above after completion of the ESA, as required by the scope of work included in RESPEC's contract for services with the OCD.

### **TABLE OF CONTENTS**

1.0	INT	RODUCTION	1
	1.1	PURPOSE	1
	1.2	SCOPE OF SERVICES	1
2.0	SIT	E DESCRIPTION	2
	2.1	LOCATION AND LEGAL DESCRIPTION	2
	2.2	SITE AND VICINITY GENERAL CHARACTERISTICS	2
	2.3	CURRENT USE OF THE PROPERTY	3
	2.4	DESCRIPTION OF STRUCTURES	3
	2.5	ADJOINING PROPERTIES	3
3.0	USE	CR-PROVIDED INFORMATION	4
	3.1	OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION	4
	3.2	REASON FOR PERFORMING THE ESA	4
4.0	SIT	E INSPECTION	4
	4.1	CURRENT USES OF THE PROPERTY	4
	4.2	PAST USES OF THE PROPERTY	4
	4.3	SITE OBSERVATIONS	4
		4.3.1 Hazardous Wastes	5
		4.3.2 <u>Underground/Aboveground Storage Tanks</u>	5
		4.3.3 <u>Drums and Containers</u>	5
		4.3.4 Polychlorinated Biphenyl (PCB)-Containing Equipment	5
		4.3.5 Solid Waste	5
		4.3.6 <u>Liquid Waste</u>	5
		4.3.7 <u>Drains and Sumps</u>	5
		4.3.8 Wastewater	6
		4.3.9 <u>Wells</u>	6
		4.3.10 Pits, Ponds, and Lagoons	6
		4.3.11 Other Physical Evidence of Contamination (If Any)	6
5.0	HIS	TORIC SITE AND SURROUNDING PROPERTY CONDITIONS	6
	5.1	AERIAL PHOTOGRAPHS	6
6.0	REG	ULATORY AGENCY REVIEW	7
	6.1	REVIEW OF ENVIRONMENTAL DATABASES	7
	6.2	SUBJECT PROPERTY	7
	6.3	DATABASES SEARCHED WITH NO MAPPED SITES FOUND	7

	6.4	DATABASES SEARCHED WITH MAPPED SITES FOUND	S
	6.5	ORPHAN SITES	ç
7.0	PHA	SE II INVESTIGATION	ç
	7.1	HORIZONTAL AND VERTICAL EXTENT OF SOIL CONTAMINATION	ç
	7.2	EXTENT OF GROUNDWATER CONTAMINATION	10
	7.3	HYDROLOGY/GROUNDWATER CHARACTERISTICS	- 11
8.0	SIT	E RESTORATION ACTIVITIES	12
	8.1	AST DECOMMISSIONING, DECONTAMINATION, AND RECYCLING	12
	8.2	OTHER SITE RESTORATION ACTIVITIES	13
9.0	CON	ICLUSIONS	13
	9.1	ON-SITE RECOGNIZED ENVIRONMENTAL CONDITIONS	13
	9.2	OFF-SITE RECOGNIZED ENVIRONMENTAL CONDITIONS	14
10.0	RE	COMMENDATIONS	15
11.0	LI	MITATIONS	16
	11.1	LIMITING CONDITIONS	16
	11.2	LIMITATIONS OF THE ASSESSMENT	16
12.0	RE	FERENCES	18
AP	PENI	DIX A. SIGNATURES OF RESPEC PERSONNEL	A-1
AP:	PENI	DIX B. SITE PHOTOGRAPHS	B-1
AP	PENI	DIX C. ASBESTOS INVESTIGATION REPORT	C-1
AP	PENI	DIX D. AERIAL PHOTOGRAPHS	D-1
AP	PENI	DIX E. EDR ENVIRONMENTAL DATABASE REPORT	E-1
AP	PENI	DIX F. LABORATORY REPORTS WITH CHAIN-OF-CUSTODY FORMS	F-1
AP	PENI	DIX G. SOIL BORE LOGS WITH WELL COMPLETION DIAGRAMS	G-1
AP	PENI	DIX H. SURVEY RESULTS	H-1

### LIST OF FIGURES

FIG	URE	PAGE	
1	Vicinity Map	F-1	
2	Site Map	F-2	
3	Groundwater Gradient Map	F-3	
4	JAMAR Site Diagram – Area North of Lease Road	F-4	
5	JAMAR Site Diagram – Area South of Lease Road	F-5	
6	BTEX, Chloride, and TDS Contaminant Concentration Map	F-6	

### 1.0 INTRODUCTION

RESPEC was retained in April 2004 by the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department of the State of New Mexico to perform a Phase I Environmental Site Assessment (ESA) and Phase II Site Investigation and Site Restoration for the subject property, the site of the JAMAR Oil Processing and Treating Plant, located 2.7 miles south of Monument, Lea County, New Mexico, along State Route 8. The ESA was performed in a manner consistent with the methods and procedures described in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessment: Phase I and Phase II Environmental Site Assessment Process (Standard Designation E 1527-00), published in July 2000. Signatures of RESPEC personnel involved in the preparation of this report are included in Appendix A. The ESA and Site Restoration objectives and the scope of work are presented in the following sections.

### 1.1 PURPOSE

The purpose of the Phase I and Phase II ESA was to evaluate whether current or past activities on the subject property may have resulted in significant contamination by hazardous materials or regulated wastes, a condition referred to in this report as a "Recognized Environmental Condition." A Recognized Environmental Condition is defined in the ASTM Phase I Standard as:

The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

### 1.2 SCOPE OF SERVICES

RESPEC's scope of services for the Phase I and Phase II ESA and Site Restoration consisted of the following:

An inspection of the subject property and nearby area.

- A review of historical information about activities on the subject property.
- A review of readily available regulatory information concerning the subject property and nearby properties of environmental concern.
- An investigation into the extent of hazardous or regulated substances, including hydrocarbons (volatile and semivolatile), hydrocarbon constituents (volatile and semivolatile), and inorganic compounds (total dissolved solids, chlorides, and fluorides) in shallow subsurface and surface soils.
- An investigation into the nature and extent of groundwater contamination, by means of six groundwater monitoring wells on the subject property.
- Decommissioning, decontamination, and removal of 15 aboveground storage tanks (ASTs), including all contents, for proper disposal and recycling.
- Removal and disposal of hazardous and regulated substances and debris and trash from the entire site, approximately 8.2 acres in area.
- The preparation of this report detailing RESPEC's results, conclusions, and recommendations.

The radius of search for facilities of potential environmental concern in the vicinity of the subject property is in conformance with ASTM Standard E1527-00.

### 2.0 SITE DESCRIPTION

Information concerning the subject property was obtained from a site inspection conducted by representatives of RESPEC and a review of the documents referenced in Section 7.0 of this report.

### 2.1 LOCATION AND LEGAL DESCRIPTION

The subject property is located in the SE/4 of Section 8, Township 20 South, Range 37 East, N.M.P.M., Lea County, New Mexico, 2.7 miles south of Monument, New Mexico along State Route 8. A vicinity map is presented as Figure 1 and a site map is presented as Figure 2.

### 2.2 SITE AND VICINITY GENERAL CHARACTERISTICS

Site and vicinity characteristics, including topography, geology, and hydrogeology, were evaluated on the basis of site observations, published literature, and maps. According to the topographic map for Monument, New Mexico, produced with the software package DeLorme

Topo USA® 3.0, Southwest Region © 2001, the subject property is at an elevation of approximately 3,542 feet above mean sea level. Depth to groundwater at the subject property is approximately 28 feet below ground surface (BGS) and has a gradient direction generally toward the southeast, as confirmed by monitoring well completions.

The regional geology of Lea County, in the area known as the "Llano Estacado" because of the flat-lying surface topography, includes Cenozoic deposits of sands and gravels. The base of the Cenozoic sediments marks the disconformity to Paleozoic sedimentary bedrock deposits of sandstones, shales, and limestones that are prolific oil and gas producers in the Permian Basin.

Monitoring well drilling at the subject property revealed subsurface lithology consisting of alluvial deposits overlying an approximate 25-foot layer of caliche. At the base of the caliche at approximately 27 feet BGS, the top of the Ogallala Formation was penetrated. The water-bearing Ogallala consisted of unconsolidated, poorly graded sands and gravels in this area. Groundwater, with a southeasterly gradient, was encountered at approximately 28 feet BGS (see Figure 3. Groundwater Gradient Map).

### 2.3 CURRENT USE OF THE PROPERTY

The subject property is currently being used for cattle grazing only. Mr. Jim Cooper of Monument, New Mexico, maintains ownership of five of the original 20 ASTs and various oil field-type surface equipment throughout the site.

### 2.4 DESCRIPTION OF STRUCTURES

The subject property is unpaved and originally had two small outbuildings, one small office, and 20 steel ASTs of various capacities. During the subsequent site restoration activities, the office building and 15 of the ASTs were removed from the subject property.

### 2.5 ADJOINING PROPERTIES

RESPEC performed a visual inspection of readily visible areas of adjacent properties as well as a review of plat maps from the County Assessor's Office in order to document adjacent property owners. Mr. Jim Cooper is the landowner of all the adjacent properties.

### 3.0 USER-PROVIDED INFORMATION

### 3.1 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

According to the Lea County Assessor's Office and a discussion with owner, the current owner of the subject property is Jim Cooper.

### 3.2 REASON FOR PERFORMING THE ESA

The client required the ESA to be implemented as the initial phase of the project as outlined in the Scope of Work section of RESPEC's contract with the OCD.

### 4.0 SITE INSPECTION

Mr. Jorge Armstrong, a representative of RESPEC, conducted a site inspection on April 17, 2004. Weather conditions at the time of the inspection were mostly sunny, with a temperature of approximately 87°F. RESPEC's site inspection included a walking inspection of the subject property and adjacent and surrounding properties, and a windshield survey of the surrounding area. Photographs taken during RESPEC's site inspection are provided in Appendix B.

### 4.1 CURRENT USES OF THE PROPERTY

The subject property is currently vacant, without any commercial activity.

### 4.2 PAST USES OF THE PROPERTY

The subject property formerly housed a crude oil processing and treatment plant. Twenty ASTs were used for the production of crude oil and paraffin by recycling oil production tank bottoms.

### 4.3 SITE OBSERVATIONS

A RESPEC environmental professional conducted a site reconnaissance of the property on April 17, 2004. He noted that the ASTs on the subject property were corroded, and there was evidence of spilled and leaking fluids throughout the tank area. Soils with oil stains were noted between the two tank battery areas. Wind-blown trash, steel pipe and scrap iron, and empty 55-gallon drums, as well as numerous discarded items and other solid waste, were observed.

### 4.3.1 Hazardous Wastes

The laboratory tests conducted on the contents of the ASTs revealed exempt nonhazardous oil field waste. The laboratory results were certified by the OCD Hobbs District Office in Hobbs, New Mexico, as exempt nonhazardous oil field waste.

Asbestos-containing material (ACM) was identified in used piping during an ACM investigation of the subject property on April 17, 2004. The complete report of the ACM investigation and abatement, complete with all laboratory results as well as conclusions and recommendations, is included in Appendix C of this report.

### 4.3.2 Underground/Aboveground Storage Tanks

Twenty ASTs—three steel-bolted 500-barrel tanks, five steel-bolted 250-barrel tanks, two 210-barrel welded steel tanks, six 500-barrel welded steel tanks, two 750-barrel welded steel tanks, one 1,000-barrel welded steel tank, and one 100-barrel corrugated steel tank—were observed on the subject property. Exempt nonhazardous oil field waste of an unknown volume was observed in 19 of the ASTs. The remaining AST, the 100-barrel corrugated steel tank, was empty and dry.

### 4.3.3 Drums and Containers

Thirty empty 55-gallon drums were observed on the subject property.

### 4.3.4 Polychlorinated Biphenyl (PCB)-Containing Equipment

No PCB-containing equipment was observed on the subject property at the time of the inspection.

### 4.3.5 Solid Waste

Four large piles of scrap metal (an estimated 20 tons), wind-blown trash and numerous discarded items, and other solid waste, such as discarded pallets, concrete rubble, and piping, were observed on the subject property.

### 4.3.6 Liquid Waste

No uncontained liquid waste was observed on the subject property.

### 4.3.7 Drains and Sumps

RESPEC's site inspector observed a drain line and a steel sump (55-gallon drum) connected to the fill line of each AST.

### 4.3.8 Wastewater

No wastewater or wastewater treatment systems were observed on the subject property during the site inspection.

### 4.3.9 Wells

Two water wells (W-01 and W-02) were observed on the subject property. A third water well (W-03) was found approximately 300 feet northeast of the northeast corner of the property.

### 4.3.10 Pits, Ponds, and Lagoons

No pits, ponds, or lagoons were observed on the subject property.

### 4.3.11 Other Physical Evidence of Contamination (If Any)

Oil-stained surface soil was observed adjacent to and surrounding each tank battery.

### 5.0 HISTORIC SITE AND SURROUNDING PROPERTY CONDITIONS

### 5.1 AERIAL PHOTOGRAPHS

RESPEC reviewed four available aerial photographs of the subject property, filed at the University of New Mexico Earth Data Analysis Center (UNM/EDAC). The following aerial photographs are included in Appendix F:

- 1949 aerial photograph (poor quality): The subject property is developed with several buildings and ASTs. There are a few scattered tank batteries in the general vicinity of the subject property.
- 1954 aerial photograph (fair quality): There appears to be some additional development at the subject property. There appears to be more oil production activity, with tank batteries surrounding the subject property.
- 1966 aerial photograph (poor quality): There do not appear to be any significant changes to the subject property. The oil production and tank batteries surrounding the subject property appear approximately the same as in the 1954 photograph.
- 1978 aerial photograph (poor quality): The subject property and surrounding areas appear approximately the same as in the 1966 photograph.

### 6.0 REGULATORY AGENCY REVIEW

### **6.1 REVIEW OF ENVIRONMENTAL DATABASES**

RESPEC reviewed information gathered from several environmental databases by Environmental Data Resources, Inc. (EDR), to determine whether activities on or near the subject property have the potential to create a Recognized Environmental Condition on the subject property. EDR reviews databases compiled by federal, state, and local governmental agencies. EDR's database report is included as Appendix E.

The information obtained from the databases searched is summarized in Sections 7.2 through 7.5.

### **6.2 SUBJECT PROPERTY**

The subject property was not found in EDR's search of available government records that would identify it as having a preexisting or known environmental condition.

### 6.3 DATABASES SEARCHED WITH NO MAPPED SITES FOUND

No mapped sites were found in EDR's search of available government records, either on the subject property or within the ASTM E 1527-00 search radius (one mile), in the following databases:

### FEDERAL ASTM STANDARD

NPL	
Proposed NPL	Proposed National Priority List Sites
CERCLIS	
	Compensation and Liability Information System
CERC-NFRAP CERCLIS	
CORRACTS	
RCRIS-TSD	Resource Conservation and Recovery Information System,
	Treatment, Storage, and Disposal Facilities
RCRIS-LQG	Resource Conservation and Recovery Information System,
	Large Quantity Generators of Hazardous Waste

RCRIS-SQG Resource Conservation and Recovery Information System,
Small Quantity Generators of Hazardous Waste
ERNS Emergency Response Notification System
STATE ASTM STANDARD
SHWSThis state does not maintain a SHWS list. See the Federal CERCLIS list.
SWF/LF
FEDERAL ASTM SUPPLEMENTAL
CONSENT Superfund (CERCLA) Consent Decrees
ROD
Delisted NPL
FINDSFacility Index System/Facility Identification Initiative Program Summary Report
HMIRS Hazardous Materials Information Reporting System
MLTS
MINES Mines Master Index File
NPL Liens Federal Superfund Liens
PADS
RAATS
TRIS Toxic Chemical Release Inventory System
TSCA
FTTS FIFRA/TSCA Tracking System – FIFRA (Federal Insecticide, Fungicide, &
Rodenticide Act)/TSCA (Toxic Substances Control Act)
STATE OR LOCAL ASTM SUPPLEMENTAL
AST

 ${\it Unmapped (orphan) sites \ are \ not \ considered \ in \ the \ foregoing \ analysis.}$ 

### 6.4 Databases Searched with Mapped Sites Found

Seven mapped sites within the ASTM E 1527-00 search radius around the subject property were found in EDR's search of available government records, in the following databases:

LUST ...... Leaking Underground Storage Tank Prioritization Database

UST ..... Listing of Underground Storage Tanks

STATE OIL/GAS WELL INORMATION .... Listing of Oil and Gas Wells

There are 210 oil and gas production wells within a one-mile radius of the subject property.

The EDR report does not indicate the depths of the oil and gas production.

### 6.5 Orphan Sites

RESPEC reviewed the list of orphan sites, which are sites that because of a lack of sufficient data regarding their exact location within the general area have not been geocoded. The review of the list of orphan sites did not identify any properties that could potentially create a Recognized Environmental Condition on the subject property.

### 7.0 PHASE II INVESTIGATION

### 7.1 HORIZONTAL AND VERTICAL EXTENT OF SOIL CONTAMINATION

Soil samples were collected from multiple sample points during trenching and soil-boring activities at the subject property. They revealed elevated chloride (Cl), relative to site background levels (estimated to be between 20 and 275 milligrams per kilogram (mg/kg)) and elevated total petroleum hydrocarbon concentrations (TPHC), for which the regulatory limit is 100 mg/kg in soils. The soil samples collected for laboratory analysis from Excavations #1 through #8 had TPHC concentrations ranging from 132 mg/kg to 77,000 mg/kg and Cl concentrations ranging from 1,210 mg/kg to 3,250 mg/kg. Soil Borings SB-1/MW-1 through SB-6/MW-6 had Cl concentrations below background levels (see Figures 4 and 5 for trench and soil boring locations) except for SB-3, which at 2 to 3 feet BGS had a TPHC concentration of 29,200 mg/kg. The vertical and horizontal extent of TPHC contaminants and Cl in soils was fully defined. The source for elevated concentrations of Cl (in all groundwater wells) and benzene (in MW-6) in the groundwater remains undetermined.

The horizontal and vertical extent of hydrocarbon contamination of soil in the vadose zone was delineated on site by head space analysis with a portable photoionization detector (PID) unit and confirmed by laboratory analysis by Environmental Protection Agency (EPA) Method

418.1 for gasoline range organics (GRO) and diesel range organics (DRO). The laboratory results and chain of custody for all soil samples can be found in Appendix F.

The vertical extent of elevated Cl concentrations in the vadose zone was delineated by laboratory analysis (EPA Method 300E). The concentrations of Cl in soil samples collected at maximum depth from all soil borings were below regulatory limits. These concentrations fall within the background levels for the subject property.

Attached are the boring/lithology logs for the six groundwater monitoring wells, which were advanced into the subsurface during the Phase II Investigation (see Appendix G). The subsurface lithology is fairly consistent throughout the investigation area and is basically as follows:

- 0-5 feet BGS: tan, sandy loam (dry to moist)
- <u>5-27 feet BGS</u>: hard caliche with minor sand and gravels (dry)
- <u>27-40 feet BGS</u>: light brown, unconsolidated, poorly sorted sands interbedded with clayey silt (moist to saturated)

### 7.2 EXTENT OF GROUNDWATER CONTAMINATION

The Phase II Investigation conducted at the subject property included the installation of six groundwater monitoring wells. The newly installed wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 were purged and sampled for laboratory analysis during the course of the investigation.

The wells were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tertiary butyl ether (MTBE); and ethylene dichloride (EDC) by EPA Method 8021B; for polynuclear aromatic hydrocarbons by EPA Method 8270C; for Resource Conservation and Recovery Act (RCRA) metals by EPA Method 6010B; for major cations and anions; for cation/anion balance; and for general chemistry—total dissolved solids (TDS) and total nitrate/sulfate. A quick-look sheet of aqueous laboratory results is presented in Appendix F along with the original laboratory reports and chains of custodies.

There was no evidence of hydrocarbon contamination in five of the six groundwater monitoring wells. However, MW-6, installed immediately south of the ASTs that were not removed during site restoration activities, had a benzene level of 53.1 parts per billion (ppb), which is above the New Mexico Water Quality Control Commission (NMWQCC) limit of 10 ppb. There was also evidence of slightly elevated inorganic compounds of TDS, Cl, and fluoride in all wells (see Figure 6 for BTEX, Cl, and TDS concentrations in groundwater). It is unknown whether these levels have resulted from some past activity on the subject property or may be present throughout the aquifer in the region.

### 7.3 HYDROLOGY/GROUNDWATER CHARACTERISTICS

The Phase II Investigation revealed that the groundwater aquifer was at approximately 27 feet BGS. The six monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) were completed for groundwater observation, including static water level measurements, the potentiometric surface from the survey, and water quality analysis.

MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 were all completed to a total depth of approximately 38 feet, with a 15-foot screened interval from approximately 38 feet to 23 feet BGS. (These completion depths and screen intervals are approximations. For exact measurements, please see soil boring logs with well completion diagrams in Appendix G).

Water level measurements and survey results are included in Appendix H. Monitoring well measurements were established by placing a permanent mark on the north rim of each well casing, and measurements were taken with an electronic water level instrument. Water level measurements from below the top of the well casing were as follows:

- MW-1 − 28.00 feet
- MW-2 26.50 feet
- MW-3 26.88 feet
- MW-4 26.50 feet
- MW-5-27.10 feet
- MW-6-27.13 feet
- W-01 28.42 feet
- W-02 29.83 feet
- W-03 28.32 feet

A registered land survey determined the x, y, and z coordinates at the top of the well casings for MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6. The groundwater gradient map (Figure 3) indicates that the groundwater has an average gradient magnitude of 0.002 foot/foot in a southeasterly direction (S5°E).

### 8.0 SITE RESTORATION ACTIVITIES

### 8.1 AST Decommissioning, Decontamination, and Recycling

RESPEC initiated the decommissioning, decontamination, and recycling of 15 ASTs after the development of the scope of work, design criteria, subcontractor team formation, construction/remedial action timeline, and project cost. The tasks can be summarized as follows.

- A work plan was prepared, which included the design criteria, reconnaissance of the site, cost estimates, formation of a subcontracting team, and a prejob conference with the OCD project manager.
- A site-specific health and safety plan (HASP) was completed before fieldwork began. The
  HASP contained a site information summary; a list of key personnel on site and their
  responsibilities; a list of site hazards; emergency information; a job hazard assessment;
  and procedures for decontamination and disposal, employee training, and emergencies.
  On-site safety meetings were in the form of weekly tailgate meetings with all workers in
  attendance.
- Before starting on-site field activities, RESPEC called the New Mexico One Call System to locate, mark, and map all buried pipelines and utilities at the subject property. A One Call log was kept and updated for the duration of the project.
- Crain Hot Oil Service (Crain) personnel mobilized to the subject property on a daily basis during the entire project. All fluids and solids were removed from 15 ASTs located throughout the subject property (Figures 2, 4 and 5). The tanks ranged in size from 100-barrel capacity to 1,000-barrel capacity. Crain provided a hot oil unit, trans-vac units, and all appurtenances for removal and disposal of tank contents. All fluids and solids were disposed of at Sundance Services Inc., an OCD-permitted disposal facility for exempt non-hazardous oil field waste. Crain then triple-rinsed all the tanks to inert them for removal from the subject property and recycling. All triple-rinse fluids were removed to the Sundance facility. The RESPEC project manager oversaw all operations and tracked all transport disposal manifests and disposal certifications.
- Crain performed a naturally occurring radioactive materials (NORM) survey of all pipes, tanks, and miscellaneous equipment before disposal or recycling. This task was ongoing throughout the demolition and disposal activities at the subject property. All empty tanks were inspected and surveyed internally before demolition and surveyed externally before disposal or recycling. A registered NORM surveyor performed the survey in accordance with 19.15.9.714 New Mexico Administrative Code (NMAC) and 20.3.14 NMAC.

- Fifteen tanks were removed from the site and recycled. Crain provided a shear for onsite crushing and provided all necessary transportation of material to Hobbs Iron Works in Hobbs, New Mexico, for recycling. In addition, Crain removed and recycled other iron and metal objects from the site. The RESPEC project manager oversaw these operations, including tank testing, to ensure that tanks were inerted, and provided tank death certificates.
- A total of 939 cubic yards and 3,300 barrels of exempt non-hazardous oil field waste (solids and fluids) was removed from the subject property for disposal at Sundance.

### 8.2 Other Site Restoration Activities

All trash and debris piles were removed from the site for proper disposal or recycling. Approximately 5,000 pounds of refuse was hauled to Lea County Landfill in Eunice, New Mexico. Approximately 20,000 pounds of scrap iron was hauled to Hobbs Iron Works for recycling. Thirty empty 55-gallon drums were hauled to Sundance Services Inc. for disposal. Approximately 200 linear feet of asbestos-coated steel pipe was cut and bagged for disposal at Otero/Lincoln County Regional Landfill.

### 9.0 CONCLUSIONS

RESPEC conducted a Phase I and Phase II ESA and Site Restoration in conformance with the scope and limitations of ASTM Practice E 1527-00. The subject property (approximately 8.2 acres in area) is located in the SE/4 of Section 8, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. The purpose of this assessment was to evaluate the potential for a Recognized Environmental Condition to exist on the subject property from on-site or off-site activities. RESPEC's conclusions are presented below.

### 9.1 ON-SITE RECOGNIZED ENVIRONMENTAL CONDITIONS

From the review of available information and the site inspection, RESPEC identified on-site sources that have created, or have the potential to create, a Recognized Environmental Condition on the subject property. The term *Recognized Environmental Condition* refers to the effects of hazardous substances or petroleum products even under conditions in compliance with state laws.

Elevated Cl, relative to site background levels (estimated to be between 20 and 275 milligrams per kilogram (mg/kg), based on multiple sample points on the subject property), and elevated TPHC (for which the regulatory limit is 100 mg/kg in soils) were discovered in soil

samples collected during trenching and soil-boring activities at the subject property. Trenching activities across each tank footprint revealed elevated levels of Cl and TPHC in soils. The soil samples collected from Excavations #1 through #8 for laboratory analysis had TPHC concentrations ranging from 132 mg/kg to 77,000 mg/kg and Cl concentrations ranging from 1,210 mg/kg to 3,250 mg/kg. Soil Borings SB-1/MW-1 through SB-6/MW-6 had Cl concentrations below background levels (see Figures 4 and 5 for trench and soil boring locations) except for SB-3, which at 2 to 3 feet BGS had a TPHC concentration of 29,200 mg/kg. The vertical and horizontal extent of TPHC contaminants and Cl in soils was fully defined. The source for elevated concentrations of Cl (in all groundwater wells) and benzene (in MW-6) in the groundwater remains undetermined.

Twenty ASTs—three steel-bolted 500-barrel tanks, five steel-bolted 250-barrel tanks, two 210-barrel welded steel tanks, six 500-barrel welded steel tanks, two 750-barrel welded steel tanks, one 1,000-barrel welded steel tank, and one 100-barrel corrugated steel tank were observed on the subject property. Exempt nonhazardous oil field waste of an unknown volume was observed in 19 of the ASTs. The 100-barrel AST was empty and dry.

Four large piles of scrap metal (an estimated 20 tons), wind-blown trash and numerous discarded items, and other solid waste, such as discarded pallets, concrete rubble, and piping, were observed on the subject property.

ACM was identified in the coating of 200 linear feet of steel pipe during an ACM investigation of the subject property on April 23, 2004. The complete report on ACM is found in Appendix D and includes all laboratory results as well as conclusions and recommendations.

The restoration activities at the subject property included the removal and disposal of approximately 3,310 barrels (solids and fluids) and 939 cubic yards of exempt non-hazardous oil field waste for off-site disposal. Fifteen of the existing twenty ASTs were decontaminated, dismantled, and taken off site for recycling.

All other waste identified at the subject property (scrap metal, ACM, wind-blown trash, and miscellaneous debris) was removed for off-site disposal.

### 9.2 OFF-SITE RECOGNIZED ENVIRONMENTAL CONDITIONS

In its review of available information, RESPEC identified off-site Recognized Environmental Conditions as potential contributors to the elevated Cl, TDS and benzene concentrations in the groundwater beneath the subject property. The site lies within an active oil- and gas-producing region of the Permian Basin. Off-site analysis of groundwater in the monitoring well designated W-03 revealed Cl concentrations of 1,240 milligrams per liter and TDS concentrations of 2,190 milligrams per liter. The well is located 300 feet northeast (upgradient) of the subject property.

The subject property is bounded on the northwest by an oil production well and a salt water disposal system operated by Rice Engineering of Hobbs, New Mexico. Numerous pipelines cross and lie directly adjacent to the subject property, including an EOTT Energy high-pressure natural gas line, a Navajo Refinery oil pipeline, a Dynergy oil pipeline, a Link Energy oil pipeline, and Rice Engineering salt water disposal pipelines. Attached as Figure 2, the JAMAR Site Diagram depicts pipelines lying adjacent to and crossing the subject property.

### 10.0 RECOMMENDATIONS

Recognized environmental conditions were identified on and close to the subject property. Based on the results of RESPEC's Phase I and Phase II Environmental Site Assessment, RESPEC recommends further action for the following reasons:

- Three areas of petroleum-contaminated soils were confirmed by field and laboratory analysis but were not excavated and removed during this operation. South of the lease road, the area designated Excavation #3 contains buried paraffin, oil-saturated soil, and trash. This area is estimated to contain 2,000 cubic yards of exempt oil field waste. North of the lease road, the areas designated Excavation 8 and T-13 contain soils saturated with an estimated quantity of 1,500 cubic yards of exempt oil field waste. It is recommended that these areas be treated by excavation, transport, and disposal of the exempt non-hazardous oil field waste.
- Groundwater laboratory analysis by EPA Method 8260 revealed benzene concentrations
  of 53 micrograms per liter in MW-6. Additional groundwater investigation is needed to
  confirm the source and extent of contaminants of concern. At least four additional
  groundwater monitoring wells should be installed to complete the hydrogeological
  investigation.
- The groundwater impacted by contaminants of concern may require engineered remedial
  action, which may include pilot tests, risk-based corrective action, natural attenuation,
  an engineered system (pump and treat, soil vapor extraction, or dual- phased system),
  and/or excavation of source points.

### 11.0 LIMITATIONS

### 11.1 Limiting Conditions

RESPEC's site inspection included a walking inspection of areas that were accessible by foot, and a drive-by inspection of surrounding and adjacent properties, including those properties identified in the environmental database search. No conditions that would limit RESPEC's ability to complete the scope of work were encountered during the performance of the Phase 1 and Phase II ESA.

### 11.2 Limitations of the Assessment

The Phase I and Phase II ESA was prepared in accordance with the scope of services described in Section 1.2. The work conducted by RESPEC is limited to the services upon which RESPEC and the OCD agreed, and no other services beyond those explicitly stated should be inferred or are implied.

The conclusions presented in this report are professional opinions based solely upon RESPEC's visual observations of the site and the immediate site vicinity, and upon RESPEC's interpretations of the readily available historical information, conversations with personnel knowledgeable about the site, and other readily available information, as referenced in the report. These conclusions are intended exclusively for the purpose stated herein, at the site indicated, and for the project indicated.

The environmental database information is reported as RESPEC received it from EDR, which in turn reports information as it is provided in various government databases. It is not possible for either RESPEC or EDR to verify the accuracy or completeness of information contained in these databases. However, the use of and reliance on this information is a generally accepted practice in the conduct of environmental due diligence.

It is agreed that the information provided by RESPEC is for the exclusive use of the OCD. The scope of services performed during this investigation may not be appropriate for other users, and any use or reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

This study was not intended to be a definitive investigation of contamination at the subject property. The purpose and scope of this investigation was to determine if there is reason to suspect the possibility of contamination at the site. Other than as discussed in this report, no additional exploratory borings, soil or groundwater sampling, or laboratory analyses were performed at the property; therefore, the conclusions set forth herein are made without the benefit of such additional investigation.

This report is intended for use in its entirety. No excerpts may be taken to be representative of the findings of this assessment.

Opinions and recommendations presented in this report apply to site conditions and features as they existed at the time of RESPEC's site visit and to those reasonably foreseeable. They cannot necessarily apply to conditions and features of which RESPEC is unaware and which RESPEC has not had the opportunity to evaluate.

### 12.0 REFERENCES

American Society for Testing and Materials (ASTM). Standard E 1527-00, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, May 2000.

DeLorme Topo USA® 3.0, Southwest Region © 2001. 1:24,000 scale topographic map for Monument, New Mexico.

Environmental Data Resources, Inc. March, 2005, EDR-Radius Map with Geocheck, CR 33 & Hwy 8, Monument, New Mexico, Inquiry Number 0825932.1r.

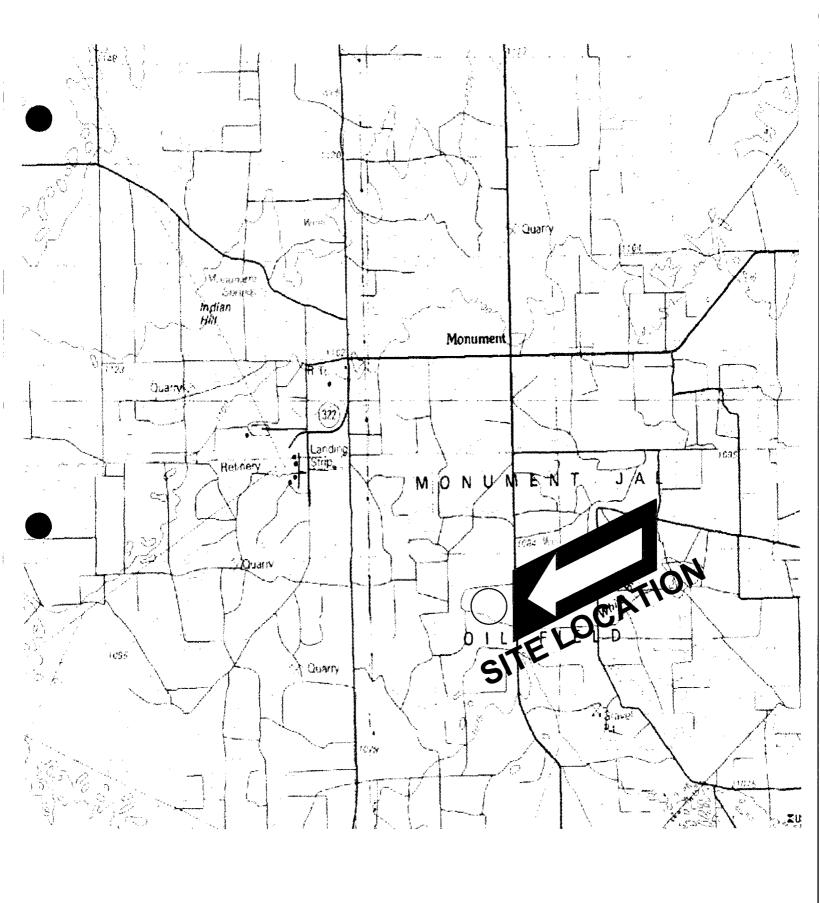
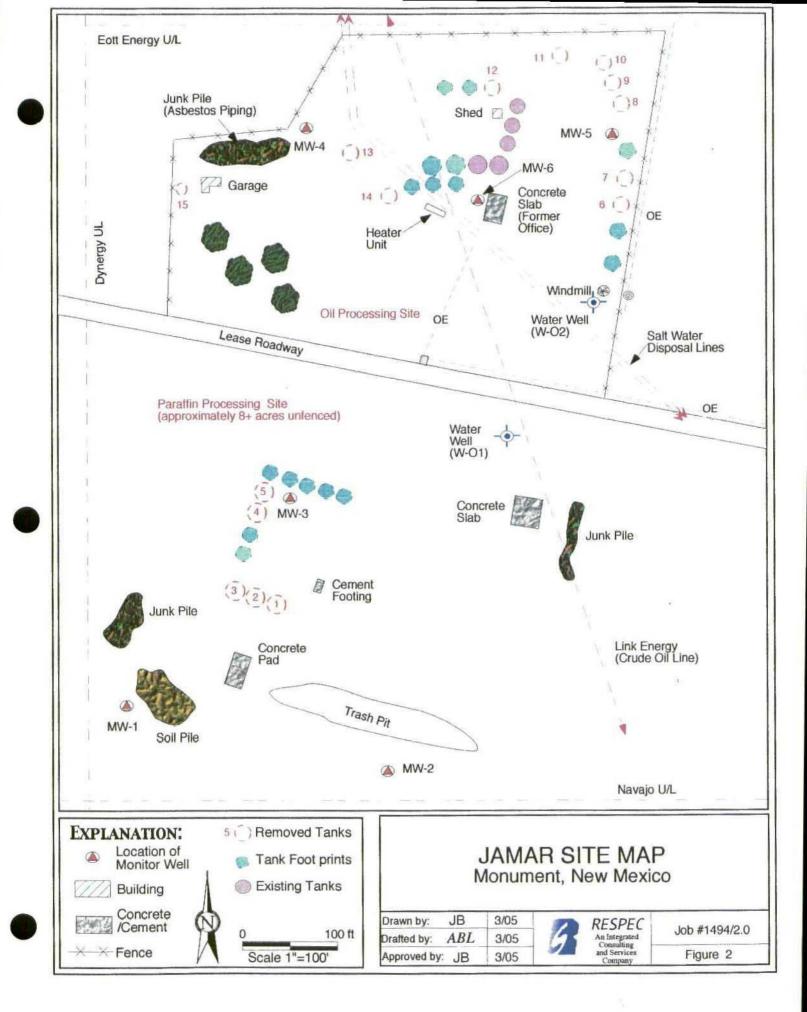
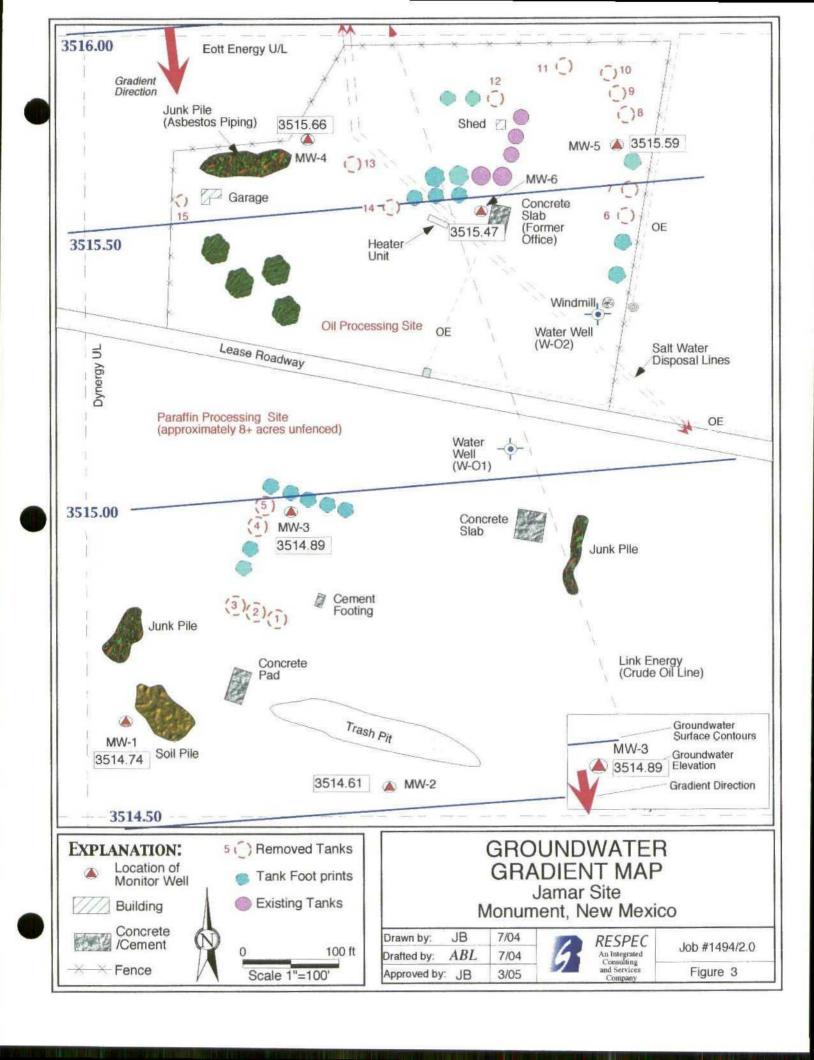


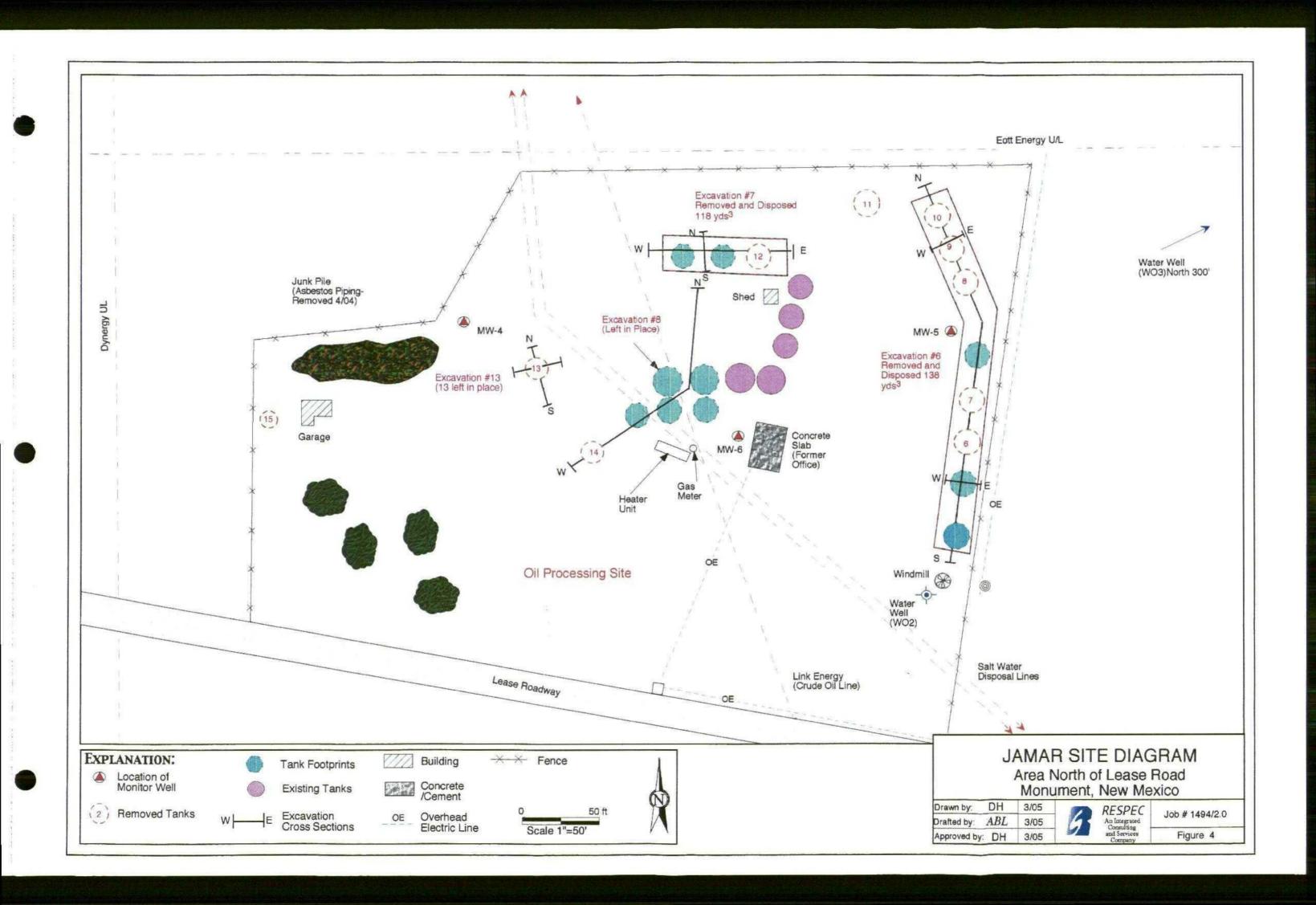
FIGURE 1 VICINITY MAP

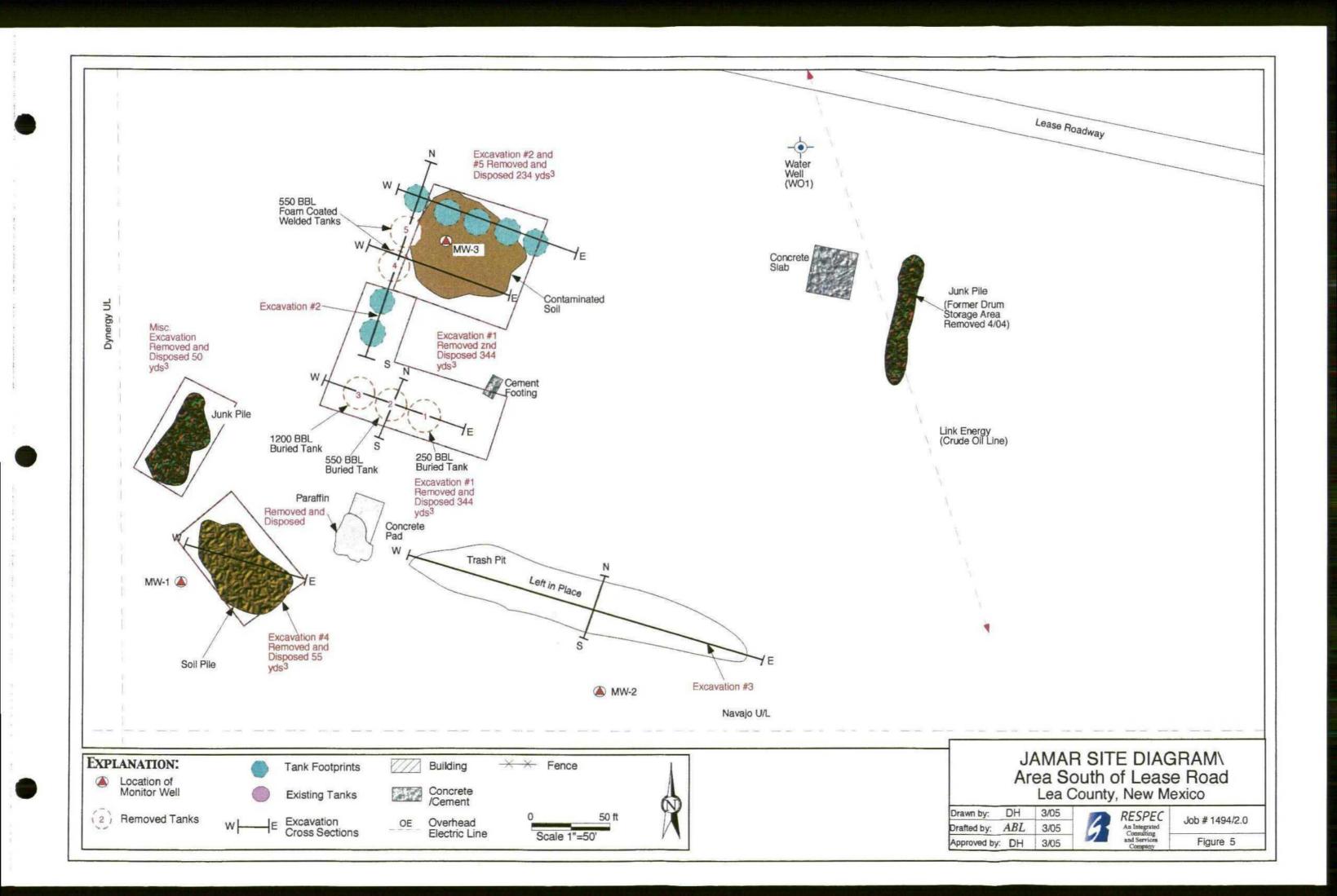


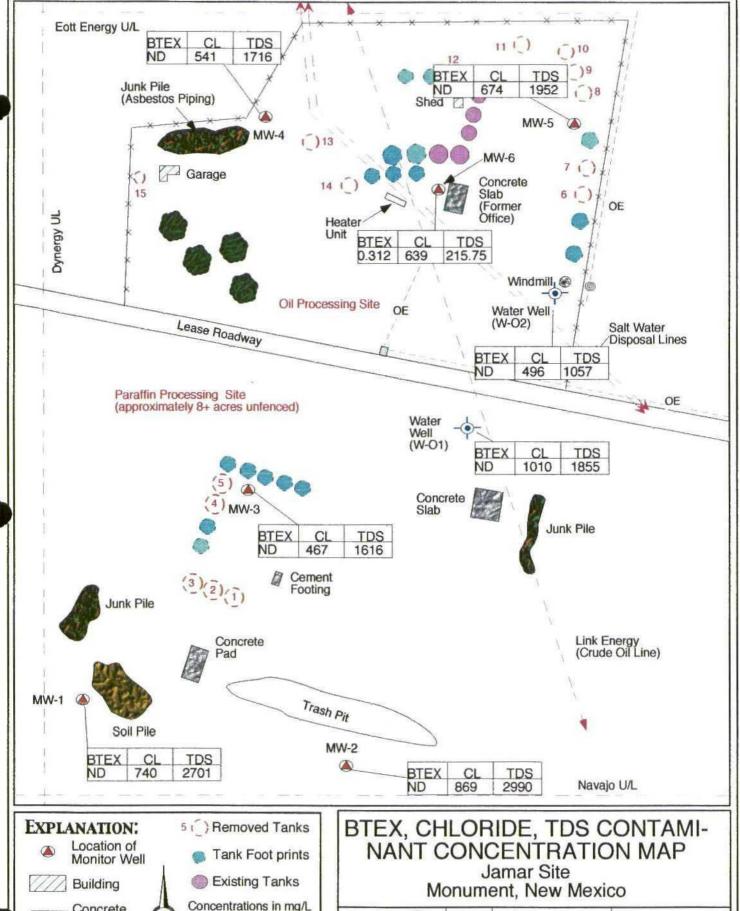
FIGURE 1 VICINITY MAP

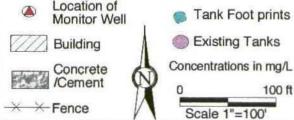












Drawn by: JB	3/05
Drafted by: $ABL$	3/05
Approved by: JB	3/05



RESPEC An Integrated Consulting and Services Company

Job #1494/2.0 Figure 6

## APPENDIX A SIGNATURES OF RESPEC PERSONNEL

### **APPENDIX A**

Signatures of RESPEC environmental professionals involved in the preparation of this report:

John R. Bunch, P.G. Project Geologist

David A. Henard

Manager, Environmental Department

## APPENDIX B SITE PHOTOGRAPHS



**Photograph No. 1.** Asbestos-coated piping located north of the lease road. All piping and asbestos were disposed of during site reclamation.



**Photograph No. 2.** Empty steel drums, trash, and debris located south of the lease road. All this material was removed and disposed of during the site reclamation.



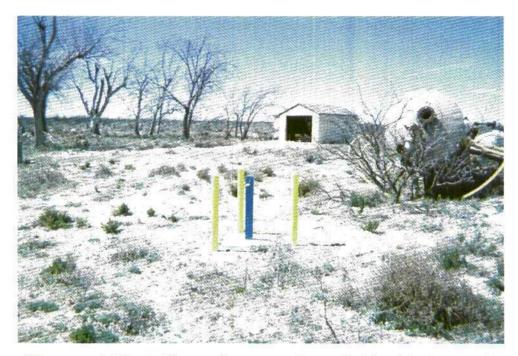
**Photograph No. 3.** A 1,200-barrel buried tank filled with oil field waste. The tank was located south of the lease road, which was cleaned, excavated, and disposed of during the site reclamation.



**Photograph No. 4.** A monitoring well (MW-6), located adjacent to the concrete slab of the former office, is located in the area on the north side of the lease road, along with the existing tanks, which were left in place.



**Photograph No. 5.** View to the south on the north side of the lease road, where Tanks Nos. 6, 7, 8, 9, and 10 were located. A monitoring well (MW-5) and a windmill are visible.



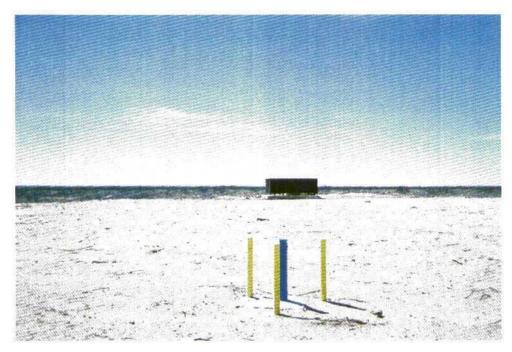
**Photograph No. 6.** View to the west on the north side of the lease road. This is the former location of the asbestos piping, which was removed and disposed of during the site reclamation. A monitoring well (MW-4) is visible in the foreground.



**Photograph No. 7.** View to the south near the former location of the buried tanks on the south side of the lease road. All of the tanks, debris, and contaminated soil have been removed from this area.



**Photograph No. 8.** A monitoring well (MW-2) and buried trash pit on the south side of the lease road. The trash pit has not been excavated and remains in place.



**Photograph No. 9.** A monitoring well (MW-3) on the south side of the lease road is visible, with a concrete slab and metal box left in place. This area is where Tanks Nos. 1, 2, 3, 4, and 5 were located, along with seven tank bottoms. All tanks and contaminated soil were removed and disposed of during the site reclamation.

## APPENDIX C ASBESTOS INVESTIGATION REPORT

# ASBESTOS INVESTIGATION OF STRUCTURES AND PIPING ON THE OCD JAMAR PROJECT SITE

NEW MEXICO HIGHWAY 8
2.7 MILES SOUTH
OF
MONUMENT
LEA COUNTY, NEW MEXICO

## PREPARED FOR: NEW MEXICO OIL CONSERVATION DIVISION

PREPARED BY: RESPEC

MAY 12, 2004 PROJECT NO. 1494-1.0



An Integrated Consulting and Services Company

## ASBESTOS INVESTIGATION OF STRUCTURES AND PIPING ON THE OCD JAMAR PROJECT SITE

NEW MEXICO HIGHWAY 8
2.7 MILES SOUTH
OF
MONUMENT
LEA COUNTY, NEW MEXICO

#### SUBMITTED TO:

NEW MEXICO OIL CONSERVATION DIVISION 1220 SOUTH SAINT FRANCIS DRIVE SANTA FE, NEW MEXICO 87505

SUBMITTED BY:

RESPEC
4775 INDIAN SCHOOL ROAD, NE
SUITE 300
ALBUQUERQUE, NM 87110

MAY 12, 2004

L. E. Archamboult, RHSP Certified Asbestos Inspector Certification # 031904-07 (certificate expiration date 03/21/05)

#### TABLE OF CONTENTS

			PAGE				
1.0	INTR	ODUCTION	1				
2.0	SCOP	E-OF-WORK	1				
3.0	LIMIT	CATIONS	2				
4.0	ASBE	STOS INVESTI	GATION3				
	4.1 4.2 4.3 4.4	Sampling Proc Analytical Res	nd Background 3 edures 5 sults 8				
5.0	CONC	LUSIONS	9				
6.0	RECO	MMENDATIO	NS9				
7.0	CONT	'ACTS	9				
			LIST OF TABLES				
			rial - Type and Quantity				
			ATTACHMENTS				
Attacl	nment	1	Site Plan and Asbestos Sampling Locations				
Attachment 2		2	Asbestos NESHAP Inspection, Sampling, and Analysis Plan				
Attacl	nment	3	Asbestos Field Notes and Sampling Logs				
	ıment		Asbestos Sampling Site Photographs				
Attachment 5			Asbestos Chain-of-Custody Forms and Laboratory Reports				

#### 1.0 INTRODUCTION

RESPEC Environmental (RESPEC) was retained by the New Mexico Oil Conservation Division (OCD) to conduct an asbestos inspection with sampling of the structures and piping located on an old oil refining site that is to be remediated. The structures and piping on some parts of the site are to be demolished and removed. The site, known as the JAMAR Project site, is located on the west side of New Mexico State Highway 8 (NM 8) approximately 2.7 miles south of the town of Monument in Lea County, New Mexico.

The asbestos inspection and sampling were conducted to satisfy the pre-demolition/renovation requirements of the asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP). The project manager for RESPEC was Ms. Lucy Archamboult, certified asbestos inspector/management planner (Inspection Certification Number 031904-07 and Management Planner Certification Number 031904-16).

#### 2.0 SCOPE OF WORK

The purpose of the asbestos inspection and sampling was to establish the presence or absence of asbestos in suspect materials and to identify the quantity, class, and condition of those materials. Knowledge of the presence and condition of the asbestos-containing materials (ACMs) and the overall condition of the materials and the structures they are in or on will allow the development of an abatement plan for the ACMs, the completion of a pre-renovation/demolition notification, and the development of a demolition plan with appropriate personal and public protection measures if the ACMs cannot be abated prior to demolition.

The following steps were to be used to complete the project:

- Develop a site asbestos inspection, sampling, and analysis plan based on information provided by OCD and site visits by RESPEC personnel prior to the project bid.
- Conduct a site inspection to establish the actual number of asbestos samples to be taken and the asbestos sampling locations.
- Sample the suspect materials in accordance with the inspection, sampling, and analysis plan.
- Evaluate the results of the laboratory analyses.
- Prepare a report of the findings and recommendations.

An estimated 30 bulk samples were to be taken and analyzed for asbestos by polarized light microscopy (PLM) in accordance with 40CFR763 Subpart F, Appendix A. Laboratory analysis was to be done with an extended turn-around time, guaranteed 15 working days from laboratory receipt of the samples.

The inspection and sampling were conducted and completed on Friday, April 23, 2004, by Ms. Archamboult. A total of 23 samples were taken.

The asbestos results were to be verbally reported to Mr. Dave Henard and Mr. Jorge Armstrong of RESPEC on April 29, 2004. Mr. Henard made arrangements for the abatement of the onground piping identified in the investigation. Abatement of the remaining identified materials will be done in the next phase of work on the site. The abatement is scheduled for May 18, 2004. This asbestos investigation report and a summary report of the abatement activities will be included in the RESPEC project report to OCD.

#### 3.0 LIMITATIONS

This report has been prepared for the exclusive use of RESPEC on behalf of OCD to support proposed renovation/demolition activities at the subject property. Any other use of the report may be inappropriate. All work has been performed in accordance with generally accepted environmental assessment practices. No warranty is expressed or implied.

The asbestos investigations were conducted based on observations of the investigator at the time of the site visits, on information from individuals familiar with asbestos regulations, and on information from individuals familiar with the site. The investigation was conducted in accordance with the Asbestos Hazard Emergency Response Act (AHERA) guidelines. Unless contradicted by conflicting data obtained independently during the conduct of the work, all information obtained has been accepted at face value. Information from interviews or from the independent laboratory may be inaccurate and/or incomplete. The information and conclusions in this report are subject to the accuracy, completeness, and availability of such data.

A not-to-scale site plan was provided to RESPEC by OCD. The site plan is provided in Attachment 1. The square and linear footage of materials were calculated from measurements taken on site. Although the insulation on one of the tanks on site was sampled as a precaution, the material appeared to be sprayed-on foam and was not expected to contain asbestos. No attempt was made to calculate the square footage of tank surface.

The number of suspect materials sampled and analyzed for asbestos was based on the AHERA sampling guidelines as described in the Inspection, Sampling, and Analysis Plan developed for this project (Attachment 2). The NESHAP pre-renovation/demolition inspection regulations require, but do not define, thorough inspection and sampling. RESPEC believes that the

AHERA guidelines provide a reliable definition of thorough inspection and sampling that is suitable for NESHAP work. Those guidelines were followed for this project.

Implementation of any recommendations contained in this report does not ensure that all environmental risks will be eliminated or that all legal obligations will be met.

#### 4.0 ASBESTOS INVESTIGATION

#### 4.1 Introduction and Background

Based on aerial photography, the site was developed after 1978. The exact construction dates of the various structures in not known. The structures on the site on the north side of the site road include:

- 14 storage tanks on the north side of the site road,
- A 20-foot by 30-foot office building located on the south side of a curved row of tanks on the north side of the site road.
- A horizontal heater unit located off the southwest corner of the office building.
- An elevated pipe run from the heater north to the west end of the curved row of tanks and east to the second tank from the west end of the tank row.
- A windmill tower with a small shed constructed around the top of the well head.
- A stucco surfaced storage shed located near the western site boundary on the north side of the site road.
- Several insulated pipe runs with elbows on the ground off the northeast corner of the storage building next to the north site fence.
- A second horizontal heater unit lying at the east end of the abandoned pipe.

Structures on the south side of the site road include:

- Five storage tanks.
- A 36-foot by 20-foot concrete pad with a steel-plate frame mounted on it.
- A junk pile containing drums, a car body, and miscellaneous pipe west of the row of three tanks.
- A 50-foot by 30-foot slab located northeast of the row of three tanks.
- A small junk pile located east of the slab.
- An abandoned water well north of the slab.
- A 10-foot by 12-foot footing concrete footing frame located slightly northeast of the east tank in the row of three tanks.

The current project at this site consists of the removal of the contents and the tanks on the south side of the site road, clean up of the junk piles on the south side of the site, removal of the contents and all but the curved row of five tanks on the north side of the site road, and removal of the pipe runs on the ground near the storage shed on the north side of the road.

Asbestos materials were banned from use in building materials in 1978. However, the existing supplies of building materials containing asbestos could still be sold and were widely used in building construction until the early 1980s. For some applications such as boiler gaskets and brake shoes asbestos was used as late as the mid-1990s. Today, there is still limited use in roofing and in items such as brake shoes and boiler door gaskets. Although, the structures and piping on the site were put in place after 1978, the requirements for insulation properties and fire resistance may have mandated the use of asbestos at the site.

The inspection of the site found the following materials that could potentially contain asbestos:

- Asphalt roofing materials on the storage shed and office building.
- Sheetrock that had been textured and painted in the office building.
- Thermal insulation on the elevated pipe run, the two heater units, and the piping on the ground near the storage shed.
- Insulation on the well head and piping for the windmill.
- Exterior stucco on the storage shed.

Additionally, the sprayed-on tank insulation on one of the tanks was sampled as a precaution.

Asphalt roofing materials are considered a Class I Non-Friable materials. The stucco, textures, sheet rock, and thermal insulation are considered to be friable materials.

The quantities, classes, and conditions of the suspect materials are summarized in Table 1.

TABLE 1: SUSPECT ASBESTOS MATERIALS - TYPE AND QUANTITY

SUSPECT MATERIALS	MATERIAL CLASS	CONDITION	ESTIMATED TOTAL QUANTITY
Asphalt Roofing	Class I Non-Friable	Good to Poor	1,002 square feet
Ceiling Sheetrock – Office Building	Friable	Good to Fair	396 square feet
Sheetrock Walls - Office Building	Friable	Good to Poor	615 square feet
Stucco Walls – Storage Shed	Friable	Fair to Poor	589 square feet

SUSPECT MATERIALS	MATERIAL CLASS	CONDITION	ESTIMATED TOTAL QUANTITY
Ceramic Heater near Storage Shed	Friable	Fair	216 square feet surface 108 cubic feet of insulation
Ceramic Heater north of Office Building	Friable	Fair	377 square feet 188 cubic feet of insulation
Large-diameter Pipe on Ground by Storage Shed	Friable	Fair to Poor	52 linear feet 4 elbows
Small-diameter Pipe on Ground by Storage Shed	Friable	Fair to Poor	74 linear feet 2 elbows
Elevated Pipe Run West Side of Office Building	Friable	Poor	100 linear feet
Windmill Pump and Piping	Friable	Poor	50 square feet
Storage Tanks	Friable	Poor	Not Estimated

#### 4.2 Sampling Procedures

Once the types, conditions, and quantities of suspect materials had been identified, the number of each type of sample and the sampling locations were established in accordance with the Asbestos Inspection, Sampling, and Analysis Plan (the Plan) provided as Attachment 2.

Twenty-three (23) samples of suspect materials were collected and analyzed in accordance with the Plan.

Field notes and sampling logs are provided as Attachment 3.

Photographs of the asbestos sample sites are provided as Attachment 4.

The numbers in each photograph correspond to the sample numbers found on the sample log in Attachment 3. Sampling locations are shown on the site plan (Attachment 1).

The samples were shipped to TraceAnalysis, Inc., in Lubbock, Texas, by United Parcel Service on Friday, April 23, 2004. TraceAnalysis, Inc., forwarded the samples to Kevco Laboratory and Consulting Services, a certified asbestos laboratory in Butler, Pennsylvania, on Monday, April 26, 2004. A faxed report of the analytical results was received by RESPEC on Wednesday, April 28, 2004. The written detailed report was received by RESPEC on Thursday, April 29, 2004. RESPEC gave a verbal report on the asbestos to Mr. David Henard and Mr. Jorge Armstrong of RESPEC on Thursday, April 29, 2004. A copy of the final laboratory asbestos report and the chain-of-custody forms are provided as Attachment 5. The analytical results are summarized in Table 2.

TABLE 2: ASBESTOS ANALYTICAL RESULTS

SAMPLE	SAMPLE	SAMPLE	PERCENT	ASSESSED
NUMBER	LOCATION	DESCRIPTION	ASBESTOS	CONDITION
1	Windmill	Pipe and pump insulation	NAD*	Friable – fair to poor condition
2	Office Building – East wall toward SE corner	Sheetrock, texture, and tape joint compound	NAD	Friable – good to fair condition
3	Office Building – West wall under air conditioner	Sheetrock, texture, and tape joint compound	NAD	Friable – good to fair condition
4	Office Building – Ceiling by NW light fixture toward ceiling center	Sheetrock, texture, and tape joint compound	NAD	Friable – good to fair condition
5	Office Building – West side roof	Gray-black shingle with roofing adhesive and roofing paper	NAD	Potentially friable during removal - good condition
6	Storage Shed – South side roof	Green-white- black shingle with roofing adhesive and roofing paper	NAD	Potentially friable during removal – poor condition
7	Storage Shed – East side on north side of door	Stucco and felting	<1%	Friable – fair to poor condition
8	Storage Shed Addition – south side	Stucco	<1%	Friable –fair to poor condition
9	Eastern most tank in the tank group on the south side of the site road	White and yellow sprayed insulation	NAD	Friable – poor condition
10	Ceramic heater north of office building – East end	Insulation	Amosite 30-35 Chrysotile 5-10	Friable under metal sheath – fair condition

SAMPLE	SAMPLE	SAMPLE	PERCENT	ASSESSED
NUMBER	LOCATION	DESCRIPTION	ASBESTOS	CONDITION
11	Ceramic heater north of office building – West end	Insulation	Amosite 25-30 Chrysotile 15-20	Friable under metal sheath – fair condition
12	Long run of elevated pipes on west side of office building	Black asphaltic insulation	Chrysotile 10-15	Friable – poor condition
13	Short run of elevated pipes on north side of office building and south side of two orange tanks	Black wrapped Insulation	NAD	Friable – poor condition
14	Ceramic heater off north east corner of stucco storage shed – East end	Insulation	Amosite 20-25 Chrysotile 5-10	Friable under metal sheath – fair condition
15	Ceramic heater off north east corner of stucco storage shed – West end	Insulation	Amosite 35-40	Friable under metal sheath – fair condition
16	Southern length of small pipe on ground	Insulation	Amosite 70-80	Friable under metal sheath – fair to poor condition
17	Northern length of small pipe on ground	Insulation	Amosite 30-35 Chrysotile 1-5	Friable under metal sheath – fair to poor condition
18	Southern length of large pipe on ground	Insulation	Amosite 75-85	Friable under metal sheath — fair to poor condition. Exposed areas poor condition
19	Northern length of large pipe on ground	Insulation	Amosite 85-95	Friable under metal sheath – fair to poor condition. Exposed areas poor condition
20	Southern large pipe upright	Insulation	Amosite 80-90	Friable under metal sheath – fair to poor condition. Exposed areas poor condition

SAMPLE NUMBER	SAMPLE LOCATION	SAMPLE DESCRIPTION	PERCENT ASBESTOS	ASSESSED CONDITION
21	Southern large pipe elbow		Amosite 85-95	Friable – poor condition
22	Northern large pipe elbow	Insulation	Amosite 85-95	Friable – poor condition
23	Northern large pipe upright	Insulation	Amosite 80-90	Friable – poor condition

<sup>\*</sup> NAD means no asbestos detected

#### 4.3 Analytical Results

Laboratory results indicate that asbestos was present in the thermal insulation found on both heater units, on the piping on the ground by the storage shed and on the north/south elevated piping run. The other insulation sampled was negative for asbestos. The sheetrock systems in the office building and the roofing for the office building and the storage shed were also negative for asbestos. Because the stucco on the storage shed contained less than one percent asbestos it is not considered an asbestos-containing building material (ACBM). However, the presence of any asbestos would require appropriate precautions under the Occupational Safety and Health Act (OSHA) regulations.

#### 4.4 Discussion

The total square and/or linear footage of each identified, homogeneous, ACM that contains one percent or more asbestos and that has been identified as friable or is considered friable, is sufficient to require NESHAP demolition/renovation reporting. Therefore, all ACM materials must be reported. The ACM thermal insulation is in fair to poor condition and is friable. The stucco is also in fair to poor condition and is friable. The roofing on the office building is in good to fair condition. By classification, it is non-friable. However, the shingles will become friable on removal. The asphalt mastics beneath the shingles are non-friable.

Abatement will be necessary for the thermal insulation and should be considered for the stucco. The removed materials will need to be disposed at a facility permitted to accept ACMs.

The roofing materials do not require abatement prior to disposal nor does the sheetrock in the office building or the insulation identified as fiberglass or glass wool. The fiberglass/glass wool insulation is present on one pipe run, on the windmill piping and well head, and on some of the piping in a junk pile on the south side of the site road.

#### 5.0 CONCLUSIONS

Based on the NESHAP requirements for renovation/demolition, the identified, friable ACMs that may be or will be disturbed by the renovation/demolition activities will require abatement before renovation can proceed. If abatement is not feasible for a structure, then all debris from the demolition/renovation must be considered asbestos-contaminated and must be disposed as ACMs. Also, if the ACMs are not abated, appropriate renovation procedures must be followed to confine and contain the asbestos fibers in the renovation debris. At least 10 days prior to the start of abatement or renovation, appropriate pre-demolition forms must be completed and submitted to the New Mexico Environment Department. The information required to complete the notifications is contained in Tables 1 and 2.

#### 6.0 RECOMMENDATIONS

Based on observations made during the site visit and based on the analytical results, RESPEC makes the following recommendations:

- Where feasible, abate the ACMs and take them to a landfill permitted to accept ACMs.
  The materials to be abated include the thermal insulation on the piping near the storage
  building, the thermal insulation on the north/south elevated pipe run, the insulation on
  the two heater units, and the stucco on the storage building.
- Use contractors certified to abate the asbestos.
- Use certified waste haulers for the asbestos waste.
- Use a disposal facility permitted to accept asbestos waste.

#### 7.0 CONTACTS

Mr. David Henard, RESPEC, Albuquerque, New Mexico, (505) 268-2661.

Mr. Jorge Armstrong, RESPEC, Albuquerque, New Mexico, (505) 268-2661.

#### ATTACHMENT:

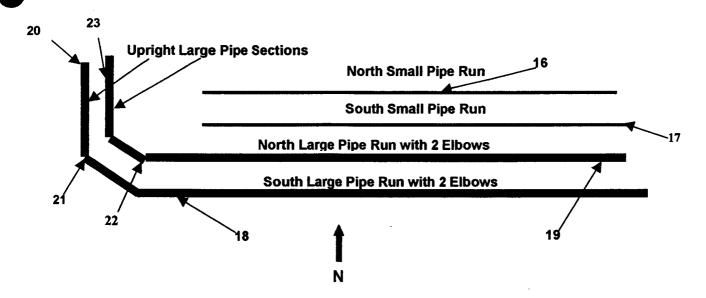
Site Plan and Asbestos Sampling Locations

05/12/04 RESP

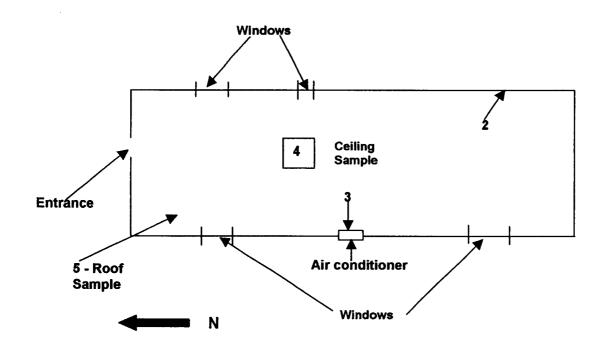
MI ZIO BEC OIL PROCESSING SITE 2-18-03 JUNE ENT UND UL I SEC 8 T-205 R-37E BOLTED -> -MY THYBUGOM TO B DIM TIS COUTED WI SOC BRY LARGE BOLTED LO ZSO FORM COATE HI Sca, SOO FOL HI 750 869 LWALKWAYS FOLTED ! #1 500 (5 or PRODUCT) CLOSES ELEVATED 15×10 6 Croap LACT WHIT PIPE (roof) 5-74 2 JUNKONICE HE /SHEE Zak Su COPPLEE BLEK FX 30 HORISDAMAC FENCED PREA HEATER MONSE ! (APPROX 3 moré) LEASE ROADWAY O ABD. PARAFFIN TROCESSING SITE (AFFREY 3+ AGRES UNFENCED) 5 SMML JUNK PILE FORM CONKED 50,30 HI 500 60L CONCRETE 1 10 X15, CENTIL LOCLING - L'UNE LO 250 881 PARTINETY ? BuRLED STEEL PINE 20 4 6 H X 20 W X 10 LONGETE SLOY TANKS Che the FIFE ETC CONCEDE CAD SECULATION OF THE SECURATION OF THE SECULATION OF THE SECULATION OF THE SECULATION OF THE SECULATION OF THE SECURATION OF THE SECULATION OF THE SECURATION OF THE Attachment 1 FOR: New Mexico Oil Conservation Division Site Sketch **NOT TO SCALE** with **Asbestos Sampling Locations JAMAR Project** NORTH Lea County, New Mexico PROJECT #: NBI-1.8 DRAWN ON BY RESPEC CAD REF # MM

z

## Sketch of Pipe Runs with Sample Locations (Not to Scale)



### Sketch of Office Building with Sample Locations (Not to Scale)



#### ATTACHMENT 2

Asbestos NESHAP Inspection, Sampling, and Analysis Plan

## ASBESTOS INSPECTION, SAMPLING, AND ANALYSIS PLAN OCD PROJECT MONUMENT, NEW MEXICO

#### 1.0 Introduction

This plan has been prepared for the asbestos inspection, with sampling, of the remaining infrastructure of an abandoned refinery being remediated for the New Mexico Oil Conservation Division (OCD). The initial primary concern is the wrapped pipe lying on the property.

The general inspection procedure shall be:

- Prepare a site sketch.
- Inspect structures on the site to identify asbestos-suspect materials. Log the location, quantity, type, condition, and friability of each asbestos-suspect material.
- Group asbestos-suspect materials into homogeneous areas.
- Select random sampling locations and collect samples in accordance with Section 2.0 of this procedure. All sample locations will be logged and described in detail to allow the sample points to be identified in the future. Where possible, sample points will be marked with the sample number on a post-it note pad. Because the buildings are in use the sample-number markers will be removed. Photographs will be taken of the sampling locations.

For NESHAP purposes, each asbestos-suspect material shall be classified as follows during the inspection:

- Category I Non-Friable (packings, gaskets, resilient floor coverings, and asphalt roofing products).
- Category II Non-Friable (any other asbestos-containing material that is not friable).
- Friable.

A copy of this plan shall be present at the sampling site.

#### 2.0 Sample Requirements

Sufficient samples have to be collected to demonstrate that suspect materials either contain or are free of asbestos. To accomplish this, Asbestos Hazard Emergency Response Act (AHERA) sample requirements will be met. AHERA does not include materials that are not building materials. The

inspection being conducted under this plan covers AHERA identified asbestos-suspect materials in the facilities.

For each homogenous area, the minimum sample requirements are:

#### **Surfacing Materials**

Homogeneous area < 1000 square feet - three samples Homogeneous area 1000-5000 square feet - five samples Homogeneous area > 5000 square feet - seven samples

#### Thermal System Insulation

Each homogeneous area - three samples Each patched section - one sample Cemented fittings - one sample

#### Miscellaneous Material

Each Material - one sample

Normal (five-to-ten days) laboratory turn-around time is required.

For budgetary purposes, the required number of samples is estimated to be 20.

#### 3.0 Analysis Methods and Quality Control

Each sample shall be analyzed for asbestos content using the Polarized Light Microscopy (PLM) method described in 40CFR763, Subpart F, Appendix A. The asbestos content of samples of friable materials that contain between trace (less than one percent) and one percent asbestos shall be subjected to a point-count analysis. Point counting shall be used on any sample for which doubt exists about the percent asbestos.

Asbestos samples will be analyzed at a laboratory that is accredited for AHERA program bulk analyses by the National Voluntary Laboratory Accreditation Program (NVLAP) under the National Institute of Standards and Technology and the NIOSH Proficiency in Analytical Testing Program (PAT). Unless conditions at the time of sampling dictate otherwise, the samples are to be analyzed at a certified laboratory used by Trace Laboratories in Lubbock, Texas.

Split samples and field-blank protocols are not required for this project.

#### 4.0 Personal Safety

The safety of the inspector is paramount. The inspector is not expected to place himself in danger for the sake of inspecting or collecting samples. The decision to enter a building or collect samples rests with the inspector.

The personnel taking the samples shall use safety glasses, half-face respirators with High Efficiency Particulate Air (HEPA) filters and disposable gloves when collecting the samples of potentially friable materials.

A disposable coverall shall be worn for overhead sampling and for sampling of friable materials.

Disposable personal protective equipment shall be bagged at the conclusion of sampling and managed as asbestos-containing waste.

When friable or potentially friable materials are being sampled, the client or building-owner representative(s) accompanying the sampler will either wear their personal and appropriately fitted protective equipment (half-face respirator with HEPA filters and disposable coveralls) or will be asked to leave the immediate area of sampling.

Because the site is being demolished, hard hats, steel-toed boots, and safety glasses will be required. Hearing protection will be required if the sampling area is in a high noise area.

#### 5.0 Sampling Procedures

Sampling procedures to be used will depend upon the type of materials encountered. When suspect materials may contain more than one layer, core samples shall be collected.

Samples of floor tiles and other materials which may be glued shall include the mastic or glue.

Every effort will be made to avoid unnecessary disturbance of the materials. Because the structures are to be demolished, no attempt will be made to patch sample areas.

The inspector is may be required to breach building structures to ascertain whether asbestos-suspect materials are contained within.

When suspect material has to be cut, cored, or broken to obtain a sample, or when sampling loose friable materials, the area will be dampened with water to minimize the release of fibers. After a sample is taken, the immediate area of the sample points should be wet cleaned with a paper towel and the towel placed in the waste-accumulation bag.

When sampling friable materials, or loose overhead materials, disposable plastic sheets will be used under the area to control the spread of debris. Sheets shall be collected and managed as waste materials.

About one ounce of material is required for each sample. The sample will be placed in a plastic ziplock bag. The bag will be sealed with tape and marked with a sample number. Other suitable sample containers may be used as long as they can be sealed to minimize the chance of inadvertent opening and can be marked with a sample number.

Care shall be taken to prevent sample cross-contamination. If a knife or coring tool has been used to cut out material, the knife or coring tool will be cleaned with water and paper towels before being used again. Disposable gloves will be discarded following use on a friable material.

Tools used to obtain samples of petroleum-based material such as roofing tar will be cleaned with paint thinner and paper towels before being used for a succeeding sample.

The inspector shall collect all waste material and shall dispose of the material off-site commensurate with the nature of the waste. When possible, de-minimus debris will be forwarded to the laboratory for disposal.

#### 6.0 Sample Preservation and Preparation for Transportation

The samples being collected do not require sample-preservation action.

For transportation to the laboratory, the sample containers will be placed in a heavy plastic bag (or double bag) and the bag sealed with tape.

The samples will be placed in a shipping container (sturdy cardboard box) along with a completed analysis-request/chain-of-custody form. The container will be sealed with filament tape.

The sampler shall sign and place a business card across the opening and tape the card and container such that the card will have to be destroyed to open the package. The package shall be forwarded to the laboratory by Federal Express or United Postal Service (UPS) priority service.

#### 7.0 Records and Logs

#### 7.1 Sampling Log

A field-activity log and a sampling log covering all sampling operations will be maintained.

#### 7.2 Chain-of-Custody and Analysis-Request Form

A combined chain-of-custody and analysis-request form shall accompany all samples forwarded to a laboratory for analysis.

#### 7.3 Laboratory Reports

The laboratory report shall include the following information:

- · sample number.
- laboratory identification number,
- analysis parameter,
- analysis results,
- units of measurement,
- analysis detection level,
- · analysis method used, and
- · signature of analyzer or supervisor.

#### 8.0 Subcontractors

No subcontractors are required to accomplish the sampling specified in this plan.

#### 9.0 Sampling Equipment and Supplies

The following equipment and supplies are required to conduct the sampling described in this plan:

- disposable gloves
- half-face respirator with HEPA filters
- sample shipping container
- indelible marking pen
- clear filament tape and duct tape
- heavy-duty, one-quart, zip-lock plastic bags
- knife, corer, and related hand tools
- paper towels
- supply of water and plastic wash bottle
- supply of paint thinner
- non-asbestos roof patch
- spackling plaster or similar patch for sheetrock
- plastic, 30-gallon trash bag
- measuring tape
- clip board and any necessary forms.

#### **ATTACHMENT 3**

Asbestos Field Notes and Sampling Logs

#### Sample Log

Clien	t: RESPEC	; OCD 1:	494-1.0 Date: 2	123104
rpos	se of Sampli	ng: NES	HAPS ASBESTOS	p1 of 2
and the second s		<del> </del>	7	<del></del>
Sample Sumber	Type of Sample	Sample Volume	Sample Location	Remarks
<u> </u>	IN SULATION	BULK	WINDMILL	APPEARS TO BE FIBERGI
- Z	SHEETROCK		OFFICE BLOG E.WALL fow and SE Loner	39.5 x 15.5 A7.5 59 ft. Shutrab
3	SKEETROCK		OFFICEBLDG (5) WALL	walls & Celling.
4	SHEET ROCK CEILING		OFFICE BLDG CEILING CENTED	
5	ROOF Office		Side Shingle & Loopnepour Jasphaly	Roof singled 25.5 X B X Z
<u></u> 6	ROOF STORAGE STED		S. Side Shingle Pleviglan-ibbro	I Same 8 lingh sur _
7	STURED STORAGE SALE		Side Shingle & Loopnepour varphets  Side Shingle plusiques - intro  Door Side (E) has somefulting  were styces	Shed 20.25x Thix 12 wide
8	THOM INSULAT		SHED ADDITION S.SIDS 9×12×7 hi.	
= 9	STORAGESH THNIC INSULATION		NSIDE	18.6:
lo	INSOLATION		E. End Deramin heaten 1	0,100
- 11	nsulation		Wend . Ceramic heater	
12	inaulastron		by office blog.	
13	mailation		Short E/W pips wen by orange tout	same as hour.
- 14	manlations		E. End Ceranin Water 2	5 in Junk pole
15	moulation		W. Ed Ceramin water Z	
16	insulption	(5	mall pepe on ground	all pipes house
17	insulation		N) small pipe on your	as de ceranico
<u>8</u>	insulation		Dlarge pipes on Siound	pios appear
19	insulation		(N) large pipe on ground	unknown on
20	moulation		(5) lange purse up night	historio.
<u>₹</u>		<u> </u>		

#### Sample Log

Client	: <u>RESPE</u>	c-ocd	1494-1.0	Date: 4/23/04
rpos	se of Sampli	ng: <u>NES</u>	HAPS ASBESTAS	p20/2
ample umber	Type of Sample	Sample Volume	Sample Location	Remarks
z)	insulation		(5) large pipe Elban :	4 large Elbours
22	insulation		(N) large proc Elbon	1 Small Elbau (NOT Singled)
23	insulation		(N) lenge pin spigut	3 Small Elbau 3/1 (Strue 3/1 6 buge Steller 52/
			•	
		·		·
		·		
			·	



#### LEA ENVIRONMENTAL

## FIELD ACTIVITY DAILY REPORT

PROJECT NAME: JAMAR PROJECT		DATE	4	23	0\$			
PROJECT NUMBER: 1494 - 1.0		PAGE	1	of	. /			
LOCATION: NMB 2.7 mi South & Monumer	ent NM							
DESCRIPTION OF DAILY ACTIVITIES AND EVENTS (PRO	•	ETCHES	):					
Travel 6 AM-12 DOON		;						
off: sheet corle & testino		3						
Ceramic heater, promulgrap to T-2, T-1	2	2						
cooking our form The facture (white)								
stices often sled - nowfing both 2 2								
well read insul agrees to be feter flass - confirm.								
End Chamic heater hear prais 2								
pipo 6								
overby Sample 9: trosh piles - nothing note. some of the								
piging to the East I white tank ha								
orfibelass invlation - NOT Sample	red. Fibriglass of	rju -						
RESPEC presences photos obesen	und Woftander be	my dis	mon	مياك				
14 - 1								
off oils 4:22 Rangles take.				· ·				
1º UPS delvenda SPM in 1866s								
1095,6 mles								
	<del></del>							
		<del></del>						
WEATHER CONDITIONS: LAST NIGHT VIS								
	Jorge Armstrona ABATEMENT CREE							
TEMPERATURE RANGE: to °F °F	" on the reprint of the control of t	207 1						
PRECIPITATION: inches of inches								
	ELEPHONE CALLS (PRO ONVERSATIONS:	OVIDE F	ECO	RD O	F			
ATTACHMENTS:	ON VERSATIONS.							
1. 4.								
5.								
3. 6.								
PREPARED BY: July Entrembour	boult	· · · · · · · · · · · · · · · · · · ·						
PREPARED BY: July autombours		DATE: 5		109				
RECEIVED BY: Lingt. andendance		DATE: 2	1/2	3/00				

#### Sample Log

Clien	t: RESPEC	: OCD 1	494-1.0 Date: 2	1/23/04
Trpo:	se of Sampli	ng: NES	HADS ASBESTOS	p1 of 2
	<u> </u>	<b>+</b>		· · · · · · · · · · · · · · · · · · ·
Sample Jumber	Type of Sample	Sample Volume	Sample Location	Remarks
2	IN SULATION	BULK	WINDMILL	APPEAR S TOBE FIBERGI
* Z	SHEETROCK		OFFICE BLOG E. WALL fow and SE woner	39.5 x +5.5 12.5 59 ft. Shutrab
3	Steetrock		OFFICEBLDG (5) WALL	walls & celling.
4	SHEET ROCK CEILING		OFFICE BLDG CEILING CENTED	Ection,
5	ROOF		Side Shingle & Looping poper coupling	Roof Singled 25.5 X 8 X 2
6	ROOF STORAGESTED		S. Side Shingle pleviglass-intro	Csamueli' 1
7	STURGE SHEE		Side Shingle & Loopnepour cospherence Side Shingle Plesiglan-intro Door Side (E) has sometilling were Styced	Shed 20.25 x 7hi x 12 wide
8	THOW INSULAT		SHED ADDITION S.SIDE	
8	STOPAGES H	ಟ್ರ	9x12x7hi.	No.
<sup>2</sup> 9	TANK- INSULATION		NSIDE	
. lo	INSOLATION		E. End Olionin heaten   by Himbelda	18 10 2
	nsulation		Wend caranic mater	
12	insulation		by office bldg.	,
13	mailation		Short E/W pips um by orange tank	Same as hour
14	maulations		E. End Ceranin boater Z by pipes	s in Junk pile
15	moulation		12 Sad Cliaming heater 2	
. 16	insulption		Small pepe on ground	metal jaikets
17	insulation		N) small pipe on from	as de ceranico.
2 18	insulation		Dlarge pios on ground	sions appear
19	insulation		(N) large pipe on ground.	unknown on
20	Modernon	+	(5) longe purse up ught	historio.
ě	}	-		

#### Sample Log

Client	: RESPEC	<u>c - 0cd</u>	1494-1.0	Date: 4/23/04
rpos	se of Sampli	ng: <u>NES</u> }	HAPS ASBESTRS	p20/2
ample umber	Type of Sample	Sample Volume	Sample Location	Remarks
z)	insulation		(5) large pipe Elbow :	4 large Elboros
22	insulation		(N) large pipe Elbon	1 Small Elban Nor Singled
23	insulation		(N) lenge pin up ignt	35wall Stum 741 6 buge Stellen 52/
			•	
			·	
:				



#### LEA ENVIRONMENTAL

## FIELD ACTIVITY DAILY REPORT

PROJECT NAME: JAMAR PROJECT	DATE	4	23	0\$			
PROJECT NUMBER: 1494 - 1.0	PAGE	1	of	1			
LOCATION: NMB 2.7 mi South Jonement, Nm							
DESCRIPTION OF DAILY ACTIVITIES AND EVENTS (PROVIDE NECESSARY SE	ETCHES	5):					
Travel 6 Am- 12000N							
off: sheet cocle testuro	3						
Cleanin heater, pipellorage to T-2, T-1 2	2						
- cooking over form The facture (white)							
stuces other stud- nowfing both 2	2						
well read men! - agrees to be feter flow - confirm !							
and chamic heater hear proper 2							
piges 6							
			-				
overby Samper 9: trosh pile - nothing & note. so		Lu					
piging to the East ) white tank has demonstrated	glassi	von (					
ortholass usulation - NOT Sampled. Then glass	agu i						
RESPEC presing photos obeseund Woftantos b	cay dis	mon	Hu				
10 - 1			<del></del> -				
Mode 4:22 3 Sangles take		·					
1º UPS delvend@ SPM in 18665			<del></del>				
1/1/1/2 5-1045 (095, 6 miles	<del></del>						
LACT NIGHT LICETORS ON SITE							
WEATHER CONDITIONS: LAST NIGHT VISITORS ON SITE:  Jorge Armsteon	e.						
ARATEM OF COO		ı					
TEMPERATURE RAINGE. 10 °F	•						
PRECIPITATION: inches of inches	OMBE	)ECO	DD 6	<u></u>			
WIND: to M.P.H. TELEPHONE CALLS (PF CONVERSATIONS:	COVIDE	CECO	KD C	,r 			
ATTACHMENTS:  1. 4.							
1. 4. 2. 5.							
3. 6.							
	DATE:	11/-					
PREPARED BY: Juys autombourd			109				
RECEIVED BY: Singl. and must	DATE: 2	1/20	3/04				

Markan Baran B

#### ATTACHMENT

Asbestos Sampling Site Photographs

05/12/04



Sample 1: Windmill well head insulation



**View Office Building** 



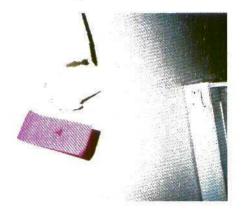
Sample 3: Office building sheetrock wall under air conditioner west side



View of windmill well head shelter



Sample 2: Office building sheetrock wall east side



Sample 4: Office building sheetrock ceiling.



Sample 5: Office building roofing



**View Storage Shed** 



Sample 7: Storage shed east sidewall north of door



View office building roofing underlayment



Sample 6: Storage Shed Roofing



Sample 8: Storage shed south side wall

Asbestos Investigation of Structures and Pipes OCD JAMAR Project RESPEC Project No. 1494-1.0



View of sampled storage tank south side of site road



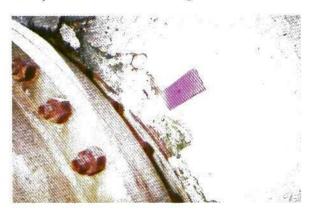
View Heater Unit by Office Building



Sample 11: Heater unit insulation from west end



Sample 9: South side storage tank insulation



Sample 10: Heater unit insulation east end



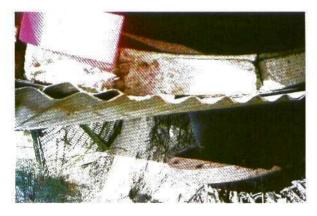
View elevated piping from heater unit to storage tanks running along north side of office building



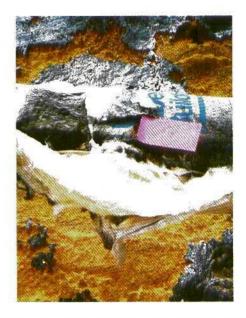
Sample 12: Asphaltic pipe insulation on north/south elevated pipe run.



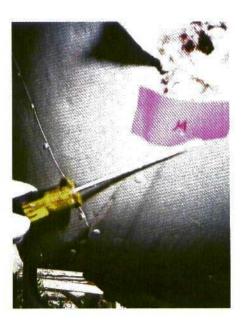
View of second heater unit (photo right) and onground pipe runs (arrow)



Sample 15: Insulation west end second heater unit



Sample 13: Pipe insulation on east/west short elevated pipe run



Sample 14: Insulation east end of second heater unit

05/12/04 RESPEC

Asbestos Investigation of Structures and Pipes OCD JAMAR Project RESPEC Project No. 1494-1.0



Sample 16: Insulation south small on-ground pipe run



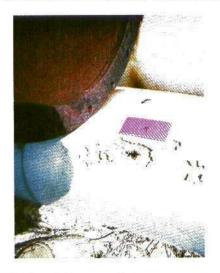
Sample 18: Insulation south large on-ground pipe run



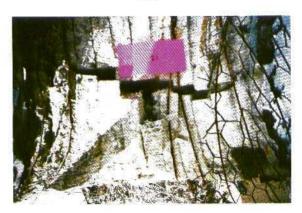
Sample 20: Insulation upright section south large pipe



Sample 17: Insulation north small on-ground pipe run



Sample 19: Insulation north large on-ground pipe run



Sample 21: Insulation south large pipe elbow



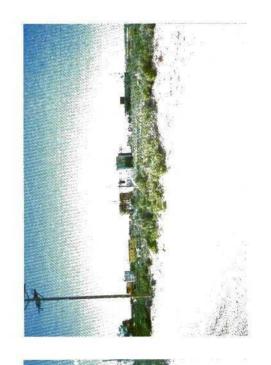
Sample 22: Insulation north large pipe elbow



Sample 23: Insulation north large pipe upright



View of the site from the east side. Left to right is south to north



Asbestos Investigation of Structures and Pipes OCD JAMAR Project Site RESPEC Project No. 1494-1.0

## ATTACHMENT 5

Asbestos Chain-of-Custody Forms and Laboratory Reports

05/12/04 The second of the second control of the second control of the second control of the second of the second control of the sec

RESPEC



REPORT DATE: 4/28/04

TEST METHOD: 40 CFR CH. I (1-1-87 EDITION) PT 763, SUBPJ. F APP. A. PAGES 293-299.

REPORT TO: TRACEANALYSIS, INC.

6701 ABERDEEN AVENUE

TX LUBBOCK

ATTENTION: NELL GREEN

79424

ANALYST SIGNATURE:

GARY LANDINI

KEVCO JOB NUMBER: DATE RECEIVED: DATE ANALYZED:	18550 4/27/04 4/28/04		18550 4/27/04 4/28/04		18550 4/27/04 4/28/04		
CLIENT SAMPLE ID: PROJECT ID:	32572	32572		32573		32574	
SAMPLE LOCATION:	1					1	
IS THE SAMPLE HOMOGENEOUS?	NO			NO		NO	
DOES IT CONTAIN LAYERS?	YES			YES		YES	
IS THE SAMPLE FIBROUS?	YES			NO		NO	
SAMPLE COLOR:	GRAY/YELLOW			WHITE/TAN		WHITE/TAN	
SAMPLE CONTAIN ASBESTOS FIBERS?	NO			NO		NO	
ASBESTOS TYPE AND PERCENT:			:	:			
TOTAL PERCENT ASBESTOS:	0 PERCENT			O PERCENT		0 PERCENT	
FIBROUS MATERIALS AND PERCENT:				CELLULOSE SYNTHETIC		FIBROUS GLASS CELLULOSE	< 1% 25 - 30
NONFIBROUS CONSTITUENTS:	BINDER/FILLER   GLASS BEADS			BINDER/FILLER		BINDER/FILLER	
DEVIATION FROM TEST METHOD:				 		 	

- THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND MUST NOT BE REPRODUCED EXCEPT WITH THE APPROVAL OF THE LABORATORY.
- ALL SAMPLES WILL BE DISPOSED OF 90 DAYS FOLLOWING SAMPLE RECEIPT UNLESS OTHERWISE INSTRUCTED BY THE CLIENT.
- UNDER CURRENT EPA REGULATIONS, AN "ASBESTOS CONTAINING MATERIAL" CONTAINS MORE THAN ONE PERCENT ASBESTOS.
- UNLESS OTHERWISE STATED, TEST METHOD DOES NOT UTILIZE POINT COUNTING. QUANTITATION OF COMPONENTS BY VISUAL ESTIMATION DURING MACROSCOPIC AND/OR PLM EXAMINATIONS.

   UNDER CURRENT NESHAP REGULATIONS, 40 CFR PART 61, ASBESTOS CONTENT IN SAMPLES WITH LESS THAN 10 PERCENT ASBESTOS MUST BE REVERIFIED BY PLM POINT COUNTING.

  THIS TEST REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY

AGENCY OF THE U.S. GOVERNMENT.



REPORT DATE: 4/28/04

TEST METHOD: 40 CFR CH. I (1-1-87 EDITION) PT 763, SUBPT. F APP. A. PAGES 293-299.

REPORT TO: TRACEANALYSIS, INC. 6701 ABERDEEN AVENUE

LUBBOCK ATTENTION: NELL GREEN 79424

ANALYST SIGNATURE:

GARY LANDINI

KEVCO JOB NUMBER: DATE RECEIVED: DATE ANALYZED:	18550 4/27/04 4/28/04	18550 4/27/04 4/28/04	18550 4/27/04 4/28/04
CLIENT SAMPLE ID: PROJECT ID:	32575	32576	32577
SAMPLE LOCATION:			
IS THE SAMPLE HOMOGENEOUS?	NO	NO	NO
DOES IT CONTAIN LAYERS?	YES	YES	YES
IS THE SAMPLE FIBROUS?	NO	NO .	NO
SAMPLE COLOR:	WHITE/TAN	GRAY/BLACK	GREEN/WHITE/BLACK
SAMPLE CONTAIN ASBESTOS FIBERS?	NO	NO	NO
ASBESTOS TYPE AND PERCENT:			
TOTAL PERCENT ASBESTOS:	O PERCENT	O PERCENT	0 PERCENT
FIBROUS MATERIALS AND PERCENT:	FIBROUS GLASS < 1% CELLULOSE 30 - 35	FIBROUS GLASS 15 - 20 CELLULOSE 10 - 15 SYNTHETIC < 1%	
NONFIBROUS CONSTITUENTS:	BINDER/FILLER	FILLER/MATRIX	FILLER/MATRIX
DEVIATION FROM TEST METHOD:		*1	*1

- THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND MUST NOT BE REPRODUCED EXCEPT WITH THE APPROVAL OF THE LABORATORY.
- ALL SAMPLES WILL BE DISPOSED OF 90 DAYS FOLLOWING SAMPLE RECEIPT UNLESS OTHERWISE INSTRUCTED BY THE CLIENT.
- UNDER CURRENT EPA REGULATIONS, AN "ASBESTOS CONTAINING MATERIAL" CONTAINS MORE THAN ONE PERCENT ASBESTOS.
- UNLESS OTHERWISE STATED, TEST METHOD DOES NOT UTILIZE POINT COUNTING. QUANTITATION OF COMPONENTS
- BY VISUAL ESTIMATION DURING MACROSCOPIC AND/OR PLM EXAMINATIONS.

   UNDER CURRENT NESHAP REGULATIONS, 40 CFR PART 61, ASBESTOS CONTENT IN SAMPLES WITH LESS THAN 10 PERCENT ASBESTOS MUST BE REVERIFIED BY PLM POINT COUNTING.

  THIS TEST REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY

AGENCY OF THE U.S. GOVERNMENT.

\*1 MATRIX OF SAMPLE DISSOLVED IN TETRAHYDROFURAN, HEATED, EVAPORATED, THEN ANALYSIS CONTINUES ACCORDING TO TEST METHOD.

> **Kevco** services inc. • 890 PITTSBURGH ROAD • BUTLER, PA 16002 TEL 724-586-6343 FAX 724-586-2172 E-mail:kevco@penn.com



REPORT DATE: 4/28/04

TEST METHOD: 40 CFR CH. I (1-1-87 EDITION) PT 763, SUBPT. F APP. A. PAGES 293-299.

REPORT TO: TRACEANALYSIS, INC

6701 ABERDEEN AVENUE

LUBBOCK

ATTENTION: NELL GREEN

79424

ΤX

ANALYST SIGNATURE:

GARY LANDINI

KEVCO JOB NUMBER: DATE RECEIVED: DATE ANALYZED:	18550 4/27/04 4/28/04	18550 4/27/04 4/28/04	18550 4/27/04 4/28/04
CLIENT SAMPLE ID: PROJECT ID:	32578	32579	32580
SAMPLE LOCATION:			
IS THE SAMPLE HOMOGENEOUS?	NO	NO	NO
DOES IT CONTAIN LAYERS?	YES	YES	YES
IS THE SAMPLE FIBROUS?	NO	NO	NO
SAMPLE COLOR:	GRAY/WHITE/BLACK	GRAY/WHITE	WHITE/YELLOW
SAMPLE CONTAIN ASBESTOS FIBERS?	YES	YES	NO
ASBESTOS TYPE AND PERCENT:	CHRYSOTILE < 1%	CHRYSOTILE < 1%	]
TOTAL PERCENT ASBESTOS:	LESS THAN 1 PERCENT	LESS THAN 1 PERCENT	0 PERCENT
FIBROUS MATERIALS AND PERCENT:	CELLULOSE	CELLULOSE < 1% HAIR (WOOL) < 1%	CELLULOSE < 1% SYNTHETIC < 1%
NONFIBROUS CONSTITUENTS:	BINDER/FILLER/MATRIX	BINDER/FILLER	MATRIX/FOAM INSUL.
DEVIATION FROM TEST METHOD:	*1	 	*1

- THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND MUST NOT BE REPRODUCED EXCEPT WITH THE APPROVAL OF THE LABORATORY.
- ALL SAMPLES WILL BE DISPOSED OF 90 DAYS FOLLOWING SAMPLE RECEIPT UNLESS OTHERWISE INSTRUCTED BY THE CLIENT.
- UNDER CURRENT EPA REGULATIONS, AN "ASBESTOS CONTAINING MATERIAL" CONTAINS MORE THAN ONE PERCENT ASBESTOS.
- UNLESS OTHERWISE STATED, TEST METHOD DOES NOT UTILIZE POINT COUNTING. QUANTITATION OF COMPONENTS BY VISUAL ESTIMATION DURING MACROSCOPIC AND/OR PLM EXAMINATIONS.

   UNDER CURRENT NESHAP REGULATIONS, 40 CFR PART 61, ASBESTOS CONTENT IN SAMPLES WITH LESS THAN 10 PERCENT ASBESTOS MUST BE REVERIFIED BY PLM POINT COUNTING.

THIS TEST REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.

\*1 MATRIX OF SAMPLE DISSOLVED IN TETRAHYDROFURAN, HEATED, EVAPORATED, THEN ANALYSIS CONTINUES ACCORDING TO TEST METHOD.



REPORT DATE: 4/28/04

TEST METHOD: 40 CFR CH. I (1-1-87 EDITION) PT 763, SUBPT. F APP. A. PAGES 293-299.

REPORT TO: TRACEANALYSIS, INC.

6701 ABERDEEN AVENUE

LUBBOCK

ATTENTION: NELL GREEN

79424

ANALYST SIGNATURE:

GARY LANDINI

KEVCO JOB NUMBER: DATE RECEIVED: DATE ANALYZED:	18550 4/27/04 4/28/04		18550 4/27/04 4/28/04		18550 4/27/04 4/28/04	
CLIENT SAMPLE ID: PROJECT ID:	32581		32582		32583	
SAMPLE LOCATION:	1		I		l	
IS THE SAMPLE HOMOGENEOUS?	NO		NO		NO	
DOES IT CONTAIN LAYERS?	YES		YES		YES	
IS THE SAMPLE FIBROUS?	YES		YES		NO	
SAMPLE COLOR:	GRAY/WHITE		TAN/BLACK/WHIT	E	GRAY/TAN/BLACK	
SAMPLE CONTAIN ASBESTOS FIBERS?	YES		YES		YES	
ASBESTOS TYPE AND PERCENT:			CHRYSOTILE   AMOSITE		CHRYSOTILE	10 - 15
TOTAL PERCENT ASBESTOS:	TOTAL:	35 - 45	TOTAL:	40 - 50	TOTAL:	10 - 15
FIBROUS MATERIALS AND PERCENT:		01 - 02			FIBROUS GLASS CELLULOSE HAIR (WOOL)	< 1%
NONFIBROUS CONSTITUENTS:	BINDER/FILLER		BINDER/MATRIX		BINDER/MATRIX	
DEVIATION FROM TEST METHOD:			*1		*1	

- THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND MUST NOT BE REPRODUCED EXCEPT WITH THE
- APPROVAL OF THE LABORATORY.
  ALL SAMPLES WILL BE DISPOSED OF 90 DAYS FOLLOWING SAMPLE RECEIPT UNLESS OTHERWISE INSTRUCTED BY THE CLIENT.
- UNDER CURRENT EPA REGULATIONS, AN "ASBESTOS CONTAINING MATERIAL" CONTAINS MORE THAN ONE PERCENT ASBESTOS.
- UNLESS OTHERWISE STATED, TEST METHOD DOES NOT UTILIZE POINT COUNTING. QUANTITATION OF COMPONENTS BY VISUAL ESTIMATION DURING MACROSCOPIC AND/OR PLM EXAMINATIONS.

   UNDER CURRENT NESHAP REGULATIONS, 40 CFR PART 61, ASBESTOS CONTENT IN SAMPLES WITH LESS THAN 10 PERCENT ASBESTOS MUST BE REVERIFIED BY PLM POINT COUNTING. THIS TEST REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.
- \*1 MATRIX OF SAMPLE DISSOLVED IN TETRAHYDROFURAN, HEATED, EVAPORATED, THEN ANALYSIS CONTINUES ACCORDING TO TEST METHOD.

**Kevco** services inc. • 890 PITTSBURGH ROAD • BUTLER, PA 16002 TEL 724-586-6343 FAX 724-586-2172 E-mail:kevco@penn.com



REPORT DATE: 4/28/04

TEST METHOD: 40 CFR CH. I (1-1-87 EDITION) PT 763,

SUBPT. F APP. A. PAGES 293-299.

REPORT TO: TRACEANALYSIS, INC.

6701 ABERDEEN AVENUE

LUBBOCK ATTENTION: NELL GREEN TX 79424

ANALYST SIGNATURE:

GARY LANDINI

KEVCO JOB NUMBER: DATE RECEIVED: DATE ANALYZED:	18550 4/27/04 4/28/04	18550 4/27/04 4/28/04	18550 4/27/04 4/28/04
CLIENT SAMPLE ID: PROJECT ID:	32584	32585	32586
SAMPLE LOCATION:			
IS THE SAMPLE HOMOGENEOUS?	NO	NO	NO
DOES IT CONTAIN LAYERS?	YES	NO	NO
IS THE SAMPLE FIBROUS?	YES	YES	YES
SAMPLE COLOR:	BLACK	PINK/GRAY	WHITE/GRAY
SAMPLE CONTAIN ASBESTOS FIBERS?	NO	YES	YES
ASBESTOS TYPE AND PERCENT:		CHRYSOTILE	AMOSITE 35 - 40
TOTAL PERCENT ASBESTOS:	O PERCENT	TOTAL: 25 - 35	TOTAL: 35 - 40
FIBROUS MATERIALS AND PERCENT:	FIBROUS GLASS 50 - 55 CELLULOSE 25 - 30	FIBROUS GLASS 30 - 35	FIBROUS GLASS 01 - 05 CELLULOSE < 1%
NONFIBROUS CONSTITUENTS:	BINDER/MATRIX GLASS BEADS	BINDER/GLASS BEADS	BINDER/GLASS BEADS
DEVIATION FROM TEST METHOD:	*1	*2	

- THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND MUST NOT BE REPRODUCED EXCEPT WITH THE APPROVAL OF THE LABORATORY.
- ALL SAMPLES WILL BE DISPOSED OF 90 DAYS FOLLOWING SAMPLE RECEIPT UNLESS OTHERWISE INSTRUCTED BY THE CLIENT.
- UNDER CURRENT EPA REGULATIONS, AN "ASBESTOS CONTAINING MATERIAL" CONTAINS MORE THAN ONE PERCENT ASBESTOS.
- UNLESS OTHERWISE STATED, TEST METHOD DOES NOT UTILIZE POINT COUNTING. QUANTITATION OF COMPONENTS BY VISUAL ESTIMATION DURING MACROSCOPIC AND/OR PLM EXAMINATIONS.
- UNDER CURRENT NESHAP REGULATIONS, 40 CFR PART 61, ASBESTOS CONTENT IN SAMPLES WITH LESS THAN 10 PERCENT ASBESTOS MUST BE REVERIFIED BY PLM POINT COUNTING.
  THIS TEST REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY

AGENCY OF THE U.S. GOVERNMENT.

- \*1 MATRIX OF SAMPLE DISSOLVED IN TETRAHYDROFURAN, HEATED, EVAPORATED, THEN ANALYSIS CONTINUES ACCORDING TO TEST METHOD.
- \*2 SAMPLE RECEIVED WET; SAMPLE DRIED PRIOR TO ANALYSIS

**Kevco** Services Inc. • 890 PITTSBURGH ROAD • BUTLER, PA 16002 TEL 724-586-6343 FAX 724-586-2172 E-mail:kevco@penn.com

0/0/08



REPORT DATE: 4/28/04

TEST METHOD: 40 CFR CH. I (1-1-87 EDITION) PT 763, SUBPT. F APP. A. PAGES 293-299.

REPORT TO: TRACEANALYSIS, INC.

6701 ABERDEEN AVENUE

LUBBOCK

ATTENTION: NELL GREEN

1

79424

ANALYST SIGNATURE:

GARY LANDING

KEVCO JOB NUMBER: DATE RECEIVED: DATE ANALYZED:	18550 4/27/04 4/28/04	•	18550 4/27/04 4/28/04		18550 4/27/04 4/28/04	
CLIENT SAMPLE ID: PROJECT ID:	32587		32588		32589	
SAMPLE LOCATION:	I				l	
IS THE SAMPLE HOMOGENEOUS?	YES		NO		YES	
DOES IT CONTAIN LAYERS?	] но		NO		NO	
IS THE SAMPLE FIBROUS?	YES		YES		YES	
SAMPLE COLOR:	GRAY		TAN/PINK		GRAY	
SAMPLE CONTAIN ASBESTOS FIBERS?	YES		YES		YES	
ASBESTOS TYPE AND PERCENT:	AMOSITE	70 - 80	CHRYSOTILE AMOSITE		AMOSITE	75 - 8
TOTAL PERCENT ASBESTOS:	TOTAL:	70 - 80	TOTAL:	31 - 40	TOTAL:	75 - 8
FIBROUS MATERIALS AND PERCENT:	CELLULOSE   HAIR (WOOL)		CELLULOSE	< 1%	CELLULOSE	< 1%
NONFIBROUS CONSTITUENTS:	BINDER/FILLER		BINDER/FILLER		BINDER/FILLER	
DEVIATION FROM TEST METHOD:			 			

- THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND MUST NOT BE REPRODUCED EXCEPT WITH THE APPROVAL OF THE LABORATORY.
- ALL SAMPLES WILL BE DISPOSED OF 90 DAYS FOLLOWING SAMPLE RECEIPT UNLESS OTHERWISE INSTRUCTED BY THE CLIENT.
- UNDER CURRENT EPA REGULATIONS, AN "ASBESTOS CONTAINING MATERIAL" CONTAINS MORE THAN ONE PERCENT ASBESTOS.
- UNLESS OTHERWISE STATED, TEST METHOD DOES NOT UTILIZE POINT COUNTING. QUANTITATION OF COMPONENTS BY VISUAL ESTIMATION DURING MACROSCOPIC AND/OR PLM EXAMINATIONS.
- UNDER CURRENT NESHAP REGULATIONS, 40 CFR PART 61, ASBESTOS CONTENT IN SAMPLES WITH LESS THAN 10 PERCENT ASBESTOS MUST BE REVERIFIED BY PLM POINT COUNTING.

  THIS TEST REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY

AGENCY OF THE U.S. GOVERNMENT.



REPORT DATE: 4/28/04

TEST METHOD: 40 CFR CH. I (1-1-87 EDITION) PT 763, SUBPT. F APP. A. PAGES 293-299.

REPORT TO: TRACEANALYSIS, INC.

6701 ABERDEEN AVENUE

LUBBOCK

ATTENTION: NELL GREEN

79424

ANALYST SIGNATURE:

GARY LANDINI

KEVCO JOB NUMBER: DATE RECEIVED: DATE ANALYZED:	18550 4/27/04 4/28/04			18550 4/27/04 4/28/04		18550 4/27/04 4/28/04		
CLIENT SAMPLE ID: PROJECT ID:	32590			32591	****	32592		
SAMPLE LOCATION:					,			
IS THE SAMPLE HOMOGENEOUS?	YES			YES		YES		
DOES IT CONTAIN LAYERS?	NO			NO		NO		
IS THE SAMPLE FIBROUS?	YES			YES		YES		
SAMPLE COLOR:	GRAY			TAN/LT. GRAY		LT. GRAY		
SAMPLE CONTAIN ASBESTOS FIBERS?	YES			YES		YES		
ASBESTOS TYPE AND PERCENT:	AMOSITE	85 -	95	CHRYSOTILE AMOSITE	< 1% 80 - 90	AMOSITE	85	- 9
TOTAL PERCENT ASBESTOS:	TOTAL:	85 -	95	TOTAL:	80 - 90	)   TOTAL:	85	- 9
FIBROUS MATERIALS AND PERCENT:				FIBROUS GLASS CELLULOSE		CELLULOSE	<	1%
NONFIBROUS CONSTITUENTS:	BINDER/FILLER	<b></b>		BINDER/FILLER		BINDER/FILLER		
DEVIATION FROM TEST METHOD:								

- THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND MUST NOT BE REPRODUCED EXCEPT WITH THE APPROVAL OF THE LABORATORY.
- ALL SAMPLES WILL BE DISPOSED OF 90 DAYS FOLLOWING SAMPLE RECEIPT UNLESS OTHERWISE INSTRUCTED BY THE CLIENT.
- UNDER CURRENT EPA REGULATIONS, AN "ASBESTOS CONTAINING MATERIAL" CONTAINS MORE THAN ONE PERCENT ASBESTOS.
- UNLESS OTHERWISE STATED, TEST METHOD DOES NOT UTILIZE POINT COUNTING. QUANTITATION OF COMPONENTS
- BY VISUAL ESTIMATION DURING MACROSCOPIC AND/OR PLM EXAMINATIONS.

   UNDER CURRENT NESHAP REGULATIONS, 40 CFR PART 61, ASBESTOS CONTENT IN SAMPLES WITH LESS THAN 10 PERCENT ASBESTOS MUST BE REVERIFIED BY PLM POINT COUNTING.

THIS TEST REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NYLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.



REPORT DATE:

4/28/04

TEST METHOD: 40 CFR CH. I (1-1-87 EDITION) PT 763, SUBPT. F APP. A. PAGES 293-299.

REPORT TO: TRACEANALYSIS, INC.

6701 ABERDEEN AVENUE

LUBBOCK ATTENTION: NELL GREEN

79424

ANALYST SIGNATURE:

GARY LANDING

KEVCO JOB NUMBER: DATE RECEIVED: DATE ANALYZED:	18550 4/27/04 4/28/04		18550 4/27/04 4/28/04		
CLIENT SAMPLE ID: PROJECT ID:	32593		32594		
SAMPLE LOCATION:					
IS THE SAMPLE HOMOGENEOUS?	YES		YES		1
DOES IT CONTAIN LAYERS?	NO		NO		
IS THE SAMPLE FIBROUS?	YES		YES		
SAMPLE COLOR:	LT. GRAY		GRAY		
SAMPLE CONTAIN ASBESTOS FIBERS?	YES		YES		
ASBESTOS TYPE AND PERCENT:	AMOSITE	85 - 95	AMOSITE	80 - 90	
TOTAL PERCENT ASBESTOS:	TOTAL:	85 - 95	TOTAL:	80 - 90	
FIBROUS MATERIALS AND PERCENT:			FIBROUS GLASS CELLULOSE		-
NONFIBROUS CONSTITUENTS:	BINDER/FILLER		BINDER/FILLER		
DEVIATION FROM TEST METHOD:	1		 		

- THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND MUST NOT BE REPRODUCED EXCEPT WITH THE APPROVAL OF THE LABORATORY.
- ALL SAMPLES WILL BE DISPOSED OF 90 DAYS FOLLOWING SAMPLE RECEIPT UNLESS OTHERWISE INSTRUCTED BY THE CLIENT.
- UNDER CURRENT EPA REGULATIONS, AN "ASBESTOS CONTAINING MATERIAL" CONTAINS MORE THAN ONE PERCENT ASBESTOS.
- UNLESS OTHERWISE STATED, TEST METHOD DOES NOT UTILIZE POINT COUNTING. QUANTITATION OF COMPONENTS BY VISUAL ESTIMATION DURING MACROSCOPIC AND/OR PLM EXAMINATIONS.

   UNDER CURRENT NESHAP REGULATIONS, 40 CFR PART 61, ASBESTOS CONTENT IN SAMPLES WITH LESS THAN 10 PERCENT ASBESTOS MUST BE REVERIFIED BY PLM POINT COUNTING.

  THIS TEST REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY

AGENCY OF THE U.S. GOVERNMENT.

10224 SANDHURST DK, NW MY BURDEL DIM B7114 Turn Around Time if different from standard SEND REPORT & SLENZO CHAIN OF CLUSTODY TO Check If Special Reporting 404261 Limits Are Needed Circle or Specify Method No.) Pesticides 8081A/608 **ANALYSIS REQUEST** 4/28/2004 BC/MS Semi: Vol. 8270C/625 REMARKS TCLP Pesticides AB Order ID # TCLP Semi Volatiles Taxed LAB USE ONLY TCLP Metals Ag As Ba Cd Cr Pb Se Hg > Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/2007 Log-in Review PAH 8270C Headspace TPH 418.1/TX1005 Carrier # BTEX 8021B/602 Temp 0 80218/602 **38TM** SAMPLING **BMIT** Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 300, ALKIJO JEROUZ NIM Phone (505) 840-7815 887-0181 PRESERVATIVE NONE ime: METHOD ICE HOBN Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. Ť Sampler Signature: 'OS'H TraceAnalysis, Inc. **4** 5 <sup>€</sup>ONH ORIGINAL COPY Project, Name: HCI Mash SLUDGE MATRIX Received at Laboratory by AIA TIOS **A**3TAW Received by: Received by: InuomA\amuloV Sych UR E. ARCHAMBOUL # CONTAINERS Street, City, Zip)

IND I AN SCHOOL RJ Time: Fime: FIELD CODE S 5 00 8 Q 0 MONUMENT 484-Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 RESPE If different from above) Project Location: Company Name Contact Person: Relinquished by Relingalished by Relinquished by 579 582 32572 575 LAB USE 513 579 578 574 530 581 nvoice to: Project #: LAB # ONLY

lorstage star of €

.

UEST

CHAIN-OF-CUSTODY AND ANALYSIS R

Cutcheon, Suite H

ż

Ste

6701 Aberdeen Av

Section 1

TraceAnalysis, Inc. Ste. Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 Lubbock, Texas

Cutcheon, Suite H Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS R

INCOME DE SENOT

LAB Order ID #

**ANALYSIS REQUEST** 

Circle or Specify Method No.

Turn Around Time if different from standard

Pesticides 8081A/608

TCLP Pesticides

TPH 418.1/TX1005 BTEX 8021B/602

MTBE 8021B/602

**BMIT** 

3TA<sub>0</sub>

NONE

NaOH

°OS°H

EONH

HCI W82H

AIA

TIOS **A**3TAW

JnuomA\9muloV

# CONTAINERS

FIELD CODE

ICE

BC/MS Semi: Vol. 8270C/625

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

SAMPLING

METHOD

ATRIX

53

removeres

Signature:

Project Name:

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7

Paso, Texas 79932

Phone #: (505) PU-7815

Albuquerque, Nm 87/10

8

(Street, City, Zip)

Archamboult

OCD

Fax #: (505) 340-2331

6701 Aberdeen Av

\$553.05°

775 INDIAN School Rd, NE Soute MONUMENT If different from above) Company Name: Project Location RESPEC Contact Person LAB USE\ 585 590 588 594 584 32583 586 587 586 165 nvoice to: Project #: ONLY LAB \*

0

5

23/64 Received at Laboratory by SS Received by: Received by 1 00 B H 61 telinquished by: telinodished by lelinquished by 592 593

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

10274 SANDHURST DR NU

REMAHNS: SENTO REPORT & SIENZED

REMARKS

XXX

CHAIN OF CUSTODS

411C8WN

Checker Special Reporting

z `

Headspace

Temp

N / ≻ > imits Are Needed

Log-in Review

10,46

## Work Order Receipt

Order

Work Order

4042614

Receive Date

at

Requestor

Lucy E Archamboult - RESPEC

Invoicing Purchase Order Wayne Price - OCD-Santa Fe

Project

N/A **JAMAR** 

Project Location = Monument, NM

 $Project\ Namc = JAMAR$ 

Comment

N/A

Samples				Collect	Collect	
Sample	Field Code	Priority	Matrix	Date	Time	Quantity
32572	1	Normal	solid	2004-04-23	12:00	1
32573	2	Normal	$\operatorname{solid}$	2004-04-23	12:10	1
32574	3	Normal	solid	2004-04-23	12:20	1
32575	4	Normal	solid	2004-04-23	12:30	1
32576	5	Normal	solid	2004-04-23	12:40	1
32577	6	Normal	solid	2004-04-23	12:50	1
32578	7	Normal	solid	2004-04-23	13:00	1
32579	8	Normal	$\operatorname{solid}$	2004-04-23	13:10	1
32580	9	Normal	solid	2004-04-23	13:20	1
32581	10	Normal	solid	2004-04-23	13:30	1
32582	11	Normal	solid	2004-04-23	13:40	1
32583	12	Normal	solid	2004-04-23	13:50	1
32584	13	Normal	$\operatorname{solid}$	2004-04-23	14:00	1
32585	14	Normal	$\operatorname{solid}$	2004-04-23	14:10	1
32586	15	Normal	solid	2004-04-23	14:20	1
32587	16	Normal	solid	2004-04-23	14:30	1
32588	17	Normal	$\operatorname{solid}$	2004-04-23	14:40	1
32589	18	Normal	solid	2004-04-23	14:50	1
32590	19	Normal	solid	2004-04-23	15:00	1
32591	20	Normal	$\operatorname{solid}$	2004-04-23	15:10	1
32592	21	Normal	solid	2004-04-23	15:20	1
32593	22	Normal	solid	2004-04-23	15:30	1
32594	23	Normal	$\mathbf{solid}$	2004-04-23	16:00	1

Sample	Test	Method	Prep	Priority	Due Date
32572	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:09.954009-05
32573	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.064086-05
32574	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.160681-05
32575	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.254944-05
32576	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.347844-05
32577	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.439662-05
32578	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.531311-05
32579	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.622858-05
32580	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.714515-05
32581	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.806204-05
32582	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.898128-05
32583	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:10.990175-05
32584	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.083273-05
32585	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.184882-05
32586	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.282218-05
32587	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.373998-05
32588	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.465826-05
32589	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.557631-05

		work u	Jraer Re	eceipt	
Sample	Test	Method	Prep	Priority	Duc Date
32590	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.649508-05
32591	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.741074-05
32592	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.832869-05
32593	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:11.924868-05
32594	Asbestos	Outside Testing	N/A	Normal	2004-04-26 10:58:12.018821-05

3824 Jet Drive, P.O. Box 725 Rapid City, South Dakota 57709-0725 Phone: 605.394.6400 • Fax: 605.394.6456



4775 Indian School Road NE, Suite 300 Albuquerque, New Mexico 871 10-3927 Phone: 505.268.2661 • Fax: 505.268.0040

1600 University Avenue, Suite 311 St. Paul, Minnesota 55104-3825 Phone: 651.649.0400 • Fax: 651.649.0600

1601 North Harrison Avenue, Suite 2B Pierre, South Dakota 57501-2312 Phone: 605.224.0990 • Fax: 605.224.2763

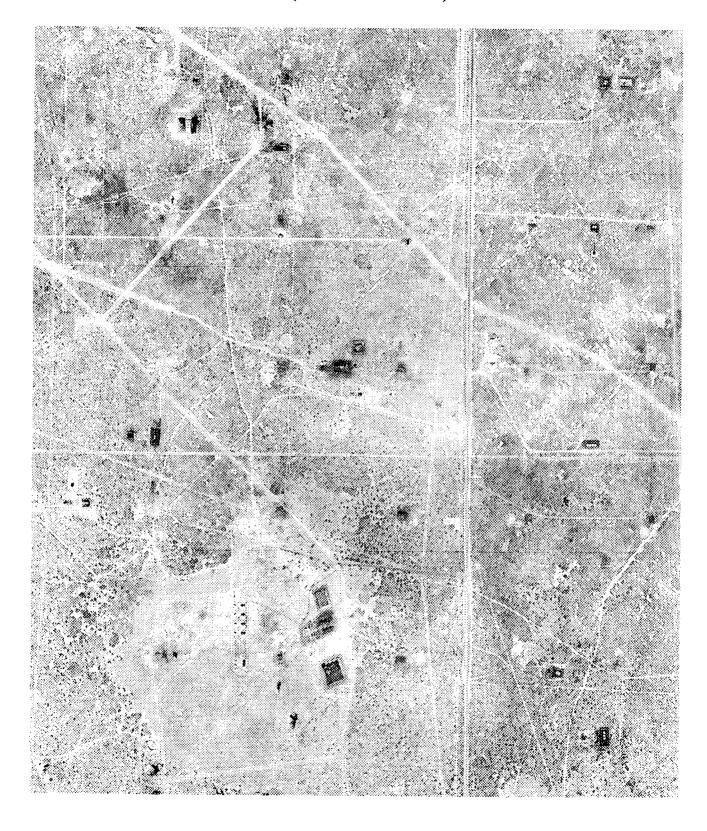
302 North Canal, Suite C, P.O. Box 2261 Carlsbad, New Mexico 88221-2261 Phone: 505.885.1583 • Fax: 505.885.9329

# G RESPEC

An Integrated Consulting and Services Company

http://www.respec.com

# APPENDIX D AERIAL PHOTOGRAPHS









# APPENDIX E EDR ENVIRONMENTAL DATABASE REPORT



# The EDR Radius Map with GeoCheck®

JAMAR Highway 8 MONUMENT, NM 88265

Inquiry Number: 01372035.1r

March 04, 2005

# The Standard in Environmental Risk Management Information

440 Wheelers Farms Road Milford, Connecticut 06460

**Nationwide Customer Service** 

Telephone: 1-800-352-0050 Fax: 1-800-231-6802 Internet: www.edrnet.com

### TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	6
Orphan Summary	7
Government Records Searched/Data Currency Tracking	GR-1
GEOCHECK ADDENDUM	
Physical Setting Source Addendum	<b>A-1</b>
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-9
Physical Setting Source Map Findings	A-10
Physical Setting Source Records Searched	A-83

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

#### Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2005 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

#### **EXECUTIVE SUMMARY**

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

#### TARGET PROPERTY INFORMATION

#### **ADDRESS**

**HIGHWAY 8** MONUMENT, NM 88265

#### COORDINATES

Latitude (North):

32.587800 - 32° 35' 16.1"

Longitude (West): Universal Tranverse Mercator: Zone 13

103.273100 - 103° 16' 23.2"

UTM X (Meters):

662079.6

UTM Y (Meters):

3606718.0

Elevation:

3548 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:

32103-E3 MONUMENT SOUTH, NM

Source:

USGS 7.5 min quad index

#### **TARGET PROPERTY SEARCH RESULTS**

The target property was not listed in any of the databases searched by EDR.

#### **DATABASES WITH NO MAPPED SITES**

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### **FEDERAL ASTM STANDARD**

\_\_\_\_\_ National Priority List

Proposed NPL......Proposed National Priority List Sites

CERCLIS...... Comprehensive Environmental Response, Compensation, and Liability Information

System

CERCLIS No Further Remedial Action Planned

CORRACTS...... Corrective Action Report
RCRA-TSDF....... Resource Conservation and Recovery Act Information RCRA-LQG...... Resource Conservation and Recovery Act Information RCRA-SQG...... Resource Conservation and Recovery Act Information

ERNS..... Emergency Response Notification System

#### STATE ASTM STANDARD

SHWS...... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

TC01372035.1r EXECUTIVE SUMMARY 1

#### **EXECUTIVE SUMMARY**

SWF/LF...... Solid Waste Facilities

LUST..... Leaking Underground Storage Tank Priorization Database

UST Listing of Underground Storage Tanks
INDIAN UST Underground Storage Tanks on Indian Land
VCP Voluntary Remediation Program Sites

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

#### FEDERAL ASTM SUPPLEMENTAL

CONSENT...... Superfund (CERCLA) Consent Decrees

ROD......Records Of Decision

Delisted NPL...... National Priority List Deletions

FINDS...... Facility Index System/Facility Identification Initiative Program Summary Report

HMIRS...... Hazardous Materials Information Reporting System

MLTS..... Material Licensing Tracking System

INDIAN RESERV...... Indian Reservations

RAATS......RCRA Administrative Action Tracking System
TRIS......Toxic Chemical Release Inventory System

TSCA Toxic Substances Control Act
SSTS Section 7 Tracking Systems

FTTS INSP......FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, &

Rodenticide Act)/TSCA (Toxic Substances Control Act)

#### STATE OR LOCAL ASTM SUPPLEMENTAL

AST..... Aboveground Storage Tanks List

Leaking Aboveground Storage Tank Sites

SPILLS...... Spill Data

#### **BROWNFIELDS DATABASES**

No Fit Date a Chipments

US BROWNFIELDS...... A Listing of Brownfields Sites

VCP..... Voluntary Remediation Program Sites

#### **SURROUNDING SITES: SEARCH RESULTS**

Surrounding sites were not identified.

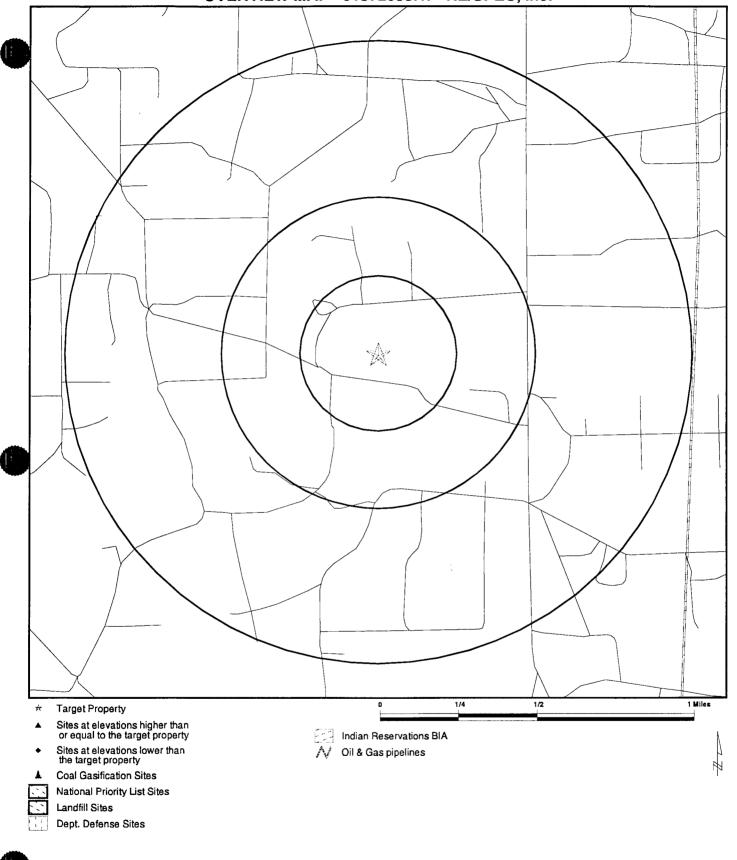
Unmappable (orphan) sites are not considered in the foregoing analysis.

## **EXECUTIVE SUMMARY**

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
LINAM RANCH SITE	CERCLIS
HIGHWAY 18 SOLVENTS	CERCLIS, FINDS
SNYDER STREET PCE	CERCLIS, FINDS
WESTERN OIL TRANS CO INC HOBBS SHOP	CERC-NFRAP
NEW MEXICO POTASH CORP	CERC-NFRAP
BLM-KERR-MCGEE LAGUNA TOSTON SITE	CERC-NFRAP
SOUTHERN UNION TRUCK FACILITY	CERC-NFRAP
CARDINAL SURVEYS CO	CERC-NFRAP
OIL PROCESSING INC.	CERC-NFRAP
RESOURCE PROTECTION INC	RCRA-SQG, FINDS, CORRACTS
HOBBS LANDFILL	SWF/LF
FERGUSON CONSTR CO	LUST
HOBBS #2/ENRON	LUST
HOBBS YARD	UST
BULL ROGERS INC	UST
HOBBS PLANT 6	UST
HOBBS PLANT	UST
HOBBS GATHERING 4	UST
HANLAD STATE 1	UST
GTSW HOBBS NORTH CENTRAL OFFICE	UST
LOCO HILLS AREA OFFICE	UST
BUCKEYE SERVICE STATION	UST
HOBBS PLANT 2	UST
MONUMENT DISTRICT OFFICE	UST
EUNICE GASOLINE PLANT	UST
H MARKER CHAMPION TECHNOLOGIES INC. HOBBS DIST	UST
HOBBS PLANT	RCRA-SQG, FINDS
NALCO EXXON CHEMICAL CO	RCRA-SQG, FINDS RCRA-SQG, FINDS
NOWSCO WELL SERVICE INC	RCRA-SQG, FINDS RCRA-SQG, FINDS
UNICHEM	RCRA-SQG, FINDS RCRA-SQG, FINDS
BJ TITAN HOBBS STA	RCRA-SQG, FINDS
TEPPCO CRUDE HOBBS STATION	RCRA-SQG, FINDS
DUKE ENERGY(LINAM RANCH PLANT)	RCRA-SQG
EL PASO NATURAL GAS MONUMENT COMPRESSOR STATION	RCRA-SQG, FINDS
SUN OIL CO ME LAUGHLIN	RCRA-SQG, FINDS
AMERADA HESS CORP MONUMENT	RCRA-SQG, FINDS
AND	NOI WYOGO, I INDO

OVERVIEW MAP - 01372035.1r - RE/SPEC, Inc.

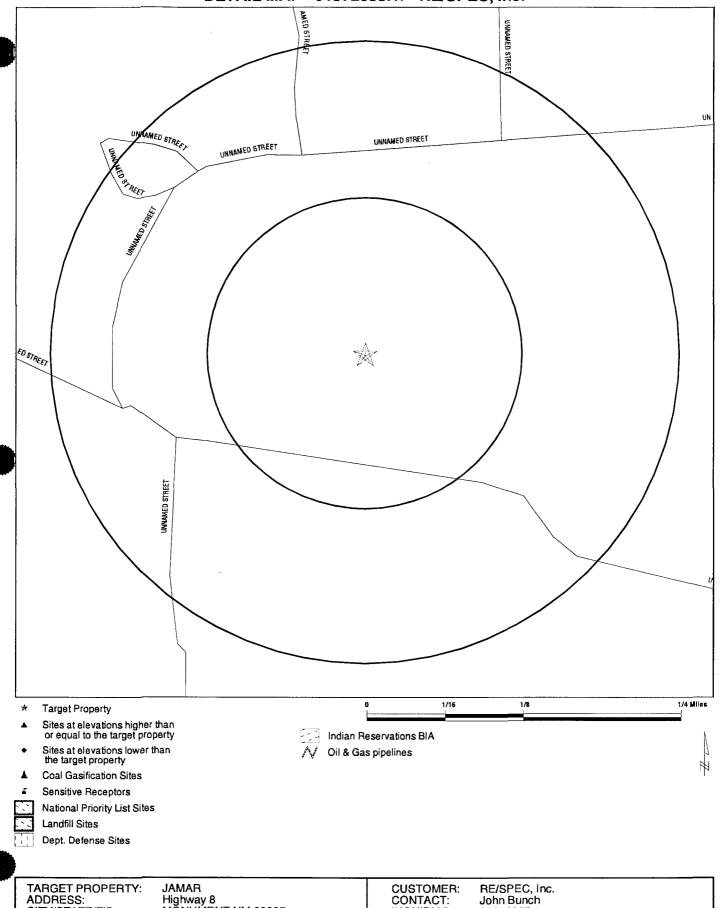


TARGET PROPERTY: ADDRESS: CITY/STATE/ZIP: LAT/LONG: JAMAR Highway 8 MONUMENT NM 88265 32.5878 / 103.2731 CUSTOMER: R
CONTACT: Jo
INQUIRY #: 0'
DATE: M

RE/SPEC, Inc. John Bunch 01372035.1r March 04, 2005 1:10 pm

Copyright © 2005 EDR, Inc. © 2003 GDT, Inc. Rel. 07/2003. All Rights Reserved.

## **DETAIL MAP - 01372035.1r - RE/SPEC, Inc.**



CITY/STATE/ZIP: LAT/LONG:

Highway 8 MONUMENT NM 88265 32.5878 / 103.2731

CUSTOMER: CONTACT: INQUIRY#:

DATE:

RE/SPEC, Inc. John Bunch 01372035.1r

March 04, 2005 1:10 pm

Copyright © 2005 EDR, Inc. © 2003 GDT, Inc. Rel. 07/2003. All Rights Reserved.

## **MAP FINDINGS SUMMARY**

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	<u>&gt; 1</u>	Total Plotted
FEDERAL ASTM STANDAR	<u>D</u>							
NPL Proposed NPL CERCLIS CERC-NFRAP CORRACTS RCRA TSD RCRA TSD RCRA Lg. Quan. Gen. RCRA Sm. Quan. Gen. ERNS STATE ASTM STANDARD		1.000 1.000 0.500 0.250 1.000 0.500 0.250 0.250	0 0 0 0 0 0 0 0 0 NR	0 0 0 0 0 0 0 0 NR	0 0 0 NR 0 0 NR NR NR	0 0 NR NR 0 NR NR NR	NR NR NR NR NR NR NR NR	0 0 0 0 0 0 0
State Haz. Waste State Landfill LUST UST INDIAN UST VCP INDIAN LUST		N/A 0.500 0.500 0.250 0.250 0.500 0.500	N/A 0 0 0 0 0	N/A 0 0 0 0 0	N/A 0 0 NR NR 0 0	N/A NR NR NR NR NR	N/A NR NR NR NR NR	N/A 0 0 0 0 0
FEDERAL ASTM SUPPLEME	ENTAL							
CONSENT ROD Delisted NPL FINDS HMIRS MLTS MINES NPL Liens PADS DOD FUDS ODI UMTRA INDIAN RESERV RAATS TRIS TSCA SSTS FTTS		1.000 1.000 1.000 TP TP TP 0.250 TP 1.000 1.000 0.500 0.500 1.000 TP TP TP	0 0 0 0 R R R 0 R R 0 0 0 0 0 R R R R R	0 0 0 RR R 0 RR 0 0 0 0 0 RR RR RR RR RR	0 0 0 0 R R R R R R 0 0 0 0 0 0 R R R R	0 0 0 R R R R R R O 0 R R O R R R R R R		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
STATE OR LOCAL ASTM SL	JPPLEMENTAL	=						
AST LAST		TP TP	NR NR	NR NR	NR NR	NR NR	NR NR	0 0

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPILLS		TP	NR	NR	NR	NR	NR	0
BROWNFIELDS DATABASE	<u>s</u>							
US BROWNFIELDS VCP		0.500 0.500	0 0	0 0	0 0	NR NR	NR NR	0 0

#### NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

Coal Gas Site Search: EDR does not presently have coal gas site information available in this state.

NO SITES FOUND

City	EDR ID	Site Name	Site Address	Zip Database(s)	
HOBBS	1003873620	WESTERN OIL TRANS CO INC HOBBS SHOP	HWY 18 NORTH	88240 CERC-NFRAP	
HOBBS	1000638110	CHAMPION TECHNOLOGIES INC HOBBS DIST	HWY 18 2M S OF HOBBS	88240 RCRA-SQG, FINDS	
HOBBS	1000833112	HOBBS PLANT	HWY 61 & 80 13M W	88240 RCRA-SQG, FINDS	
HOBBS	1007117463	LINAM RANCH SITE	HWY 62	88240 CERCLIS	
HOBBS	S105426947	FERGUSON CONSTR CO	6601 CARLSBAD HWY	88240 LUST	
HOBBS	1002980292	NEW MEXICO POTASH CORP	CARLSBAD HWY	88240 CERC-NFRAP	
HOBBS	1001222067		6520 CARLSBAD HWY	88240 RCRA-SQG, FINDS	
HOBBS	1000183109	NOWSCO WELL SERVICE INC	5514 CARLSBAD HWY	88240 RCRA-SQG, FINDS	
HOBBS	1000455327	RESOURCE PROTECTION INC	CTY RD 29 1M W HWY 62 180	88240 RCRA-SQG, FINDS, CORRACTS	S
HOBBS	S105421574	HOBBS LANDFILL	FACILITY CLOSED	88240 SWF/LF	
HOBBS	1004753982	UNICHEM	12M N HWY 18 WEST SIDE	88240 RCRA-SQG, FINDS	
HOBBS	1003873653	BLM-KERR-MCGEE LAGUNA TOSTON SITE	JCT HWY 62 & 180	88240 CERC-NFRAP	
HOBBS	1001404223	HIGHWAY 18 SOLVENTS	JOE HARVEY BLVD	88240 CERCLIS, FINDS	
HOBBS	1003873634	SOUTHERN UNION TRUCK FACILITY	LEVINGTON HWY	88240 CERC-NFRAP	
HOBBS	1003873593	CARDINAL SURVEYS CO	LOVINGTON HWY	88240 CERC-NFRAP	
HOBBS	1000413928	BJ TITAN HOBBS STA	LOVINGTON HIGHWAY	88240 RCRA-SQG, FINDS	
HOBBS	U003965187	HOBBS YARD	3 MILES OF HOBBS ON HWY 18	88240 UST	
HOBBS	U003973648	BULL ROGERS INC	N OF HOBBS HWY 18 5 MILES	88240 UST	
HOBBS	1001404221	SNYDER STREET PCE	SNYDER STREET	88240 CERCLIS, FINDS	
HOBBS	1004754007	TEPPCO CRUDE HOBBS STATION	5 MI SOUTH OF TOWN ON HWY 18 W	88240 RCRA-SQG, FINDS	
HOBBS	U003723639	HOBBS PLANT 6	STAR RTE A	88240 UST	
HOBBS	U003711631	HOBBS PLANT	STAR RTE A	88240 UST	
HOBBS	U003191557	HOBBS GATHERING 4	STAR RTE A	88240 UST	
HOBBS	U003191553	HANLAD STATE 1	STARRTEA	88240 UST	
HOBBS	U001387707	GTSW HOBBS NORTH CENTRAL OFFICE	STATE HWY 132 AND GARDEN	88240 UST	
HOBBS	1006931162	CH PLANT)	7 M W OF HOBBS ON HWY 180	88240 RCRA-SQG	
LOCO HILLS	U003192062	LOCO HILLS AREA OFFICE	HWY 82	88240 UST	
LOVINGTON	U003192158	BUCKEYE SERVICE STATION	STATE RD 8	88240 UST	
MONUMENT	U003192315	HOBBS PLANT 2	RTEA	88240 UST	
MONUMENT	\$105510948	HOBBS #2/ENRON	RTE A, PO BOX 338	88240 LUST	
MONUMENT	1000345396	EL PASO NATURAL GAS MONUMENT COMPRESSOR	5 KILOMETERS EAST OF MONUMENT WEST OF HIGHWAY 8	88265 RCRA-SQG, FINDS	
		STATION			
MONUMENT	1000126605	SUN OIL CO M E LAUGHLIN	1 1/2 MJ S MONUMENT ON SH 8	88265 RCRA-SQG, FINDS	
MONUMENT	1000889776	AMERADA HESS CORP MONUMENT	2.5M W ON HWY 322	88265 RCRA-SQG, FINDS	
MONUMENT	1003875445		2.5 MI S MONUMENT ON HWY 8	88265 CERC-NFRAP	
MONUMENT	U003192316	MONUMENT DISTRICT OFFICE	STATE HWY 322	88265 UST	
OIL CENTER	U003192387	EUNICE GASOLINE PLANT	STATE RD 175	88240 UST	
ROSWELL	U003192644	H MARKER	CHAVES HWY 285	88240 UST	

### **GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING**

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement

of the ASTM standard.

#### FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List

Source: EPA Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/14/04

Date Made Active at EDR: 02/03/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 02/01/05

Elapsed ASTM days: 2

Date of Last EDR Contact: 02/01/05

#### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

**EPA Region 1** 

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

\_\_. . .

EPA Region 4

Telephone 404-562-8033

EPA Region 6

Telephone: 214-655-6659

EPA Region 8

Telephone: 303-312-6774

Proposed NPL: Proposed National Priority List Sites

Source: EPA Telephone: N/A

> Date of Government Version: 12/14/04 Date Made Active at EDR: 02/03/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 02/01/05

Elapsed ASTM days: 2

Date of Last EDR Contact: 02/01/05

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities

List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/14/04 Date Made Active at EDR: 02/08/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/21/04

Elapsed ASTM days: 49

Date of Last EDR Contact: 12/21/04

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 12/14/04 Date Made Active at EDR: 02/08/05 Database Release Frequency: Quarterly Date of Data Arrival at EDR: 12/21/04 Elapsed ASTM days: 49 Date of Last EDR Contact: 12/21/04

**CORRACTS:** Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/15/04 Date Made Active at EDR: 02/25/05 Database Release Frequency: Quarterly Date of Data Arrival at EDR: 01/07/05 Elapsed ASTM days: 49

Date of Last EDR Contact: 12/07/04

RCRA: Resource Conservation and Recovery Act Information

Source: EPA

Telephone: 800-424-9346

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 11/23/04 Date Made Active at EDR: 01/18/05 Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 11/24/04 Elapsed ASTM days: 55 Date of Last EDR Contact: 11/24/04

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/03 Date Made Active at EDR: 03/12/04 Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/26/04 Elapsed ASTM days: 46

Date of Last EDR Contact: 01/27/05

## FEDERAL ASTM SUPPLEMENTAL RECORDS

**BRS:** Biennial Reporting System

Source: EPA/NTIS Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01 Database Release Frequency: Biennially

Date of Last EDR Contact: 12/13/04 Date of Next Scheduled EDR Contact: 03/14/05

**CONSENT:** Superfund (CERCLA) Consent Decrees Source: Department of Justice, Consent Decree Library

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/05/04 Database Release Frequency: Varies Date of Last EDR Contact: 10/25/04

Date of Next Scheduled EDR Contact: 01/24/05

ROD: Records Of Decision

Source: EPA

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical

and health information to aid in the cleanup.

Date of Government Version: 09/09/04 Database Release Frequency: Annually Date of Last EDR Contact: 01/05/05

Date of Next Scheduled EDR Contact: 04/04/05

**DELISTED NPL:** National Priority List Deletions

Source: EPA Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the

NPL where no further response is appropriate.

Date of Government Version: 12/14/04 Database Release Frequency: Quarterly Date of Last EDR Contact: 02/01/05

Date of Next Scheduled EDR Contact: 05/02/05

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA
Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 09/09/04 Database Release Frequency: Quarterly Date of Last EDR Contact: 01/03/05

Date of Next Scheduled EDR Contact: 04/04/05

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/08/04 Database Release Frequency: Annually Date of Last EDR Contact: 01/19/05

Date of Next Scheduled EDR Contact: 04/18/05

MLTS: Material Licensing Tracking System Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 11/30/04 Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/03/05

Date of Next Scheduled EDR Contact: 04/04/05

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 09/13/04 Database Release Frequency: Semi-Annually Date of Last EDR Contact: 12/28/04
Date of Next Scheduled EDR Contact: 03/28/05

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability.

USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 02/22/05

Date of Next Scheduled EDR Contact: 05/23/05

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers

of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/30/04

Database Release Frequency: Annually

Date of Last EDR Contact: 02/23/05

Date of Next Scheduled EDR Contact: 05/09/05

DOD: Department of Defense Sites

Source: USGS

Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05

Date of Next Scheduled EDR Contact: 05/09/05

UMTRA: Uranium Mill Tailings Sites Source: Department of Energy Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of

Energy.

Date of Government Version: 04/22/04

Database Release Frequency: Varies

Date of Last EDR Contact: 12/21/04

Date of Next Scheduled EDR Contact: 03/21/05

**ODI:** Open Dump Inventory

Source: Environmental Protection Agency

Telephone: 800-424-9346

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258

Subtitle D Criteria.

Date of Government Version: 06/30/85

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/95
Date of Next Scheduled EDR Contact: N/A

**FUDS:** Formerly Used Defense Sites Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers

is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/03 Database Release Frequency: Varies Date of Last EDR Contact: 01/03/05

Date of Next Scheduled EDR Contact: 04/04/05

INDIAN RESERV: Indian Reservations

Source: USGS

Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05

Date of Next Scheduled EDR Contact: 05/09/05

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 12/06/04

Date of Next Scheduled EDR Contact: 03/07/05

TRIS: Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and

land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/02
Database Release Frequency: Annually

Date of Last EDR Contact: 12/20/04

Date of Next Scheduled EDR Contact: 03/21/05

TSCA: Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

site.

Date of Government Version: 12/31/02 Database Release Frequency: Every 4 Years Date of Last EDR Contact: 12/06/04

Date of Next Scheduled EDR Contact: 03/07/05

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-564-2501

Date of Government Version: 04/13/04 Database Release Frequency: Quarterly Date of Last EDR Contact: 12/01/04

Date of Next Scheduled EDR Contact: 03/21/05

SSTS: Section 7 Tracking Systems

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices

being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03 Database Release Frequency: Annually Date of Last EDR Contact: 11/29/04

Date of Next Scheduled EDR Contact: 04/18/05

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-564-2501

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the

Agency on a quarterly basis.

Date of Government Version: 09/13/04 Database Release Frequency: Quarterly Date of Last EDR Contact: 12/01/04

Date of Next Scheduled EDR Contact: 03/21/05

## STATE OF NEW MEXICO ASTM STANDARD RECORDS

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

Source: EPA

Telephone: 703-413-0223

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A Date Made Active at EDR: N/A Database Release Frequency: N/A

Date of Data Arrival at EDR: N/A Elapsed ASTM days: N/A Date of Last EDR Contact: 01/25/05

SWF/LF: Solid Waste Facilities

Source: New Mexico Environment Department

Telephone: 505-827-0347

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/23/03 Date Made Active at EDR: 01/20/04 Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 12/23/03 Elapsed ASTM days: 28 Date of Last EDR Contact: 12/06/04

LUST: Leaking Underground Storage Tank Priorization Database

Source: New Mexico Environment Department

Telephone: 505-984-1741

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/31/05 Date Made Active at EDR: 03/04/05 Database Release Frequency: Varies Date of Data Arrival at EDR: 01/31/05 Elapsed ASTM days: 32 Date of Last EDR Contact: 01/31/05

**UST:** Listing of Underground Storage Tanks Source: New Mexico Environment Department

Telephone: 505-984-1741

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 11/01/04 Date Made Active at EDR: 12/01/04 Database Release Frequency: Varies Date of Data Arrival at EDR: 11/02/04 Elapsed ASTM days: 29

Date of Last EDR Contact: 01/31/05

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 9 Telephone: 415-972-3368

Date of Government Version: 11/02/04 Date Made Active at EDR: 12/08/04

Database Release Frequency: Varies

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land

Source: Environmental Protection Agency

Telephone: 415-972-3372

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/14/05 Date Made Active at EDR: 02/28/05 Database Release Frequency: Varies

INDIAN UST: USTs on Indian Land

Source: Environmental Protection Agency, Region 6

Telephone: 214-665-7591

Date of Government Version: 01/04/05 Date Made Active at EDR: 02/28/05 Database Release Frequency: Varies

**VCP:** Voluntary Remediation Program Sites Source: Environment Department

Telephone: 505-827-2754

Sites involved in the Voluntary Remediation Program.

Date of Government Version: 09/30/04 Date Made Active at EDR: 01/17/05 Database Release Frequency: Varies

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land

Source: EPA Region 6 Telephone: 214-665-6597

LUSTs on Indian land in New Mexico and Oklahmoa.

Date of Government Version: 01/04/05 Date Made Active at EDR: 02/28/05 Database Release Frequency: Varies

STATE OF NEW MEXICO ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Storage Tanks List Source: Environment Department

Telephone: 505-984-1926

Aboveground tanks that have been inspected by the State Fire Marshal.

Date of Government Version: 12/27/04 Database Release Frequency: Varies

LAST: Leaking Aboveground Storage Tank Sites

Source: Environment Department

Telephone: 505-984-1926

A listing of leaking aboveground storage tank sites.

Date of Government Version: 01/31/05 Database Release Frequency: Quarterly

SPILLS: Spill Data

Source: Environment Department Telephone: 505-827-0166 Hazardous materials spills data. Date of Data Arrival at EDR: 11/03/04

Elapsed ASTM days: 35

Date of Last EDR Contact: 02/22/05

Date of Data Arrival at EDR: 01/14/05

Elapsed ASTM days: 45

Date of Last EDR Contact: 02/22/05

Date of Data Arrival at EDR: 01/14/05

Elapsed ASTM days: 45

Date of Last EDR Contact: 02/22/05

Date of Data Arrival at EDR: 12/03/04

Elapsed ASTM days: 45

Date of Last EDR Contact: 02/17/05

Date of Data Arrival at EDR: 01/21/05

Elapsed ASTM days: 38

Date of Last EDR Contact: 02/22/05

Date of Last EDR Contact: 12/27/04

Date of Next Scheduled EDR Contact: 03/28/05

Date of Last EDR Contact: 01/31/05

Date of Next Scheduled EDR Contact: 05/02/05

Date of Government Version: 10/04/04 Database Release Frequency: Varies Date of Last EDR Contact: 02/22/05
Date of Next Scheduled EDR Contact: 04/25/05

#### **EDR PROPRIETARY HISTORICAL DATABASES**

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

#### Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

## **BROWNFIELDS DATABASES**

US BROWNFIELDS: A Listing of Brownfields Sites Source: Environmental Protection Agency Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

VCP: Voluntary Remediation Program Sites Source: Environment Department Telephone: 505-827-2754

Sites involved in the Voluntary Remediation Program.

Date of Government Version: 09/30/04 Database Release Frequency: Varies

Date of Last EDR Contact: 02/17/05 Date of Next Scheduled EDR Contact: 04/25/05

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

#### **Electric Power Transmission Line Data**

Source: PennWell Corporation Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

#### Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

#### **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

#### **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Child Day Care Providers

Source: Office of Child Development

Telephone: 505-827-7946

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## STREET AND ADDRESS INFORMATION

© 2003 Geographic Data Technology, Inc., Rel. 07/2003. This product contains proprietary and confidential property of Geographic Data Technology, Inc. Unauthorized use, including copying for other than testing and standard backup procedures, of this product is expressly prohibited.

## GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

#### **TARGET PROPERTY ADDRESS**

JAMAR HIGHWAY 8 MONUMENT, NM 88265

#### TARGET PROPERTY COORDINATES

Latitude (North):

32.587799 - 32° 35' 16.1"

Longitude (West):

103.273102 - 103° 16' 23.2"

Universal Tranverse Mercator: UTM X (Meters):

Zone 13 662079.6

UTM X (Meters): UTM Y (Meters):

3606718.0

Elevation:

3548 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

#### **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

#### TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:

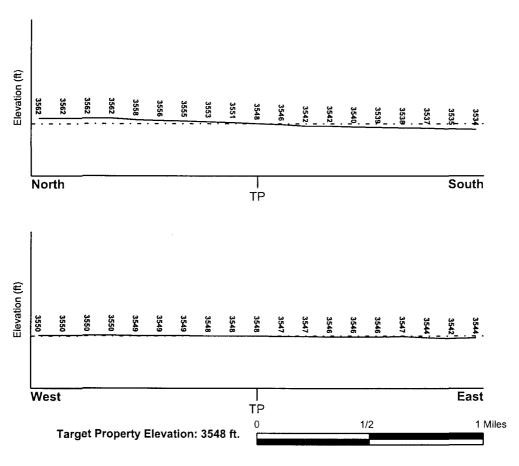
32103-E3 MONUMENT SOUTH, NM

General Topographic Gradient: General South

Source:

USGS 7.5 min quad index

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

#### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE** 

FEMA Flood

Target Property County

Electronic Data

LEA, NM

Not Available

Flood Plain Panel at Target Property:

Not Reported

Additional Panels in search area:

Not Reported

NATIONAL WETLAND INVENTORY

**NWI Electronic** 

**NWI Quad at Target Property** 

Data Coverage

NOT AVAILABLE

Not Available

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### Site-Specific Hydrogeological Data\*:

Search Radius:

1.25 miles

Status:

Not found

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID

LOCATION

**GENERAL DIRECTION** 

**GROUNDWATER FLOW** FROM TP Not Reported

<sup>©1996</sup> Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

#### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

#### GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Era: System: Cenozoic

Quaternary

Series:

Pleistocene

Code:

Qp (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

#### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:

**PYOTE** 

Soil Surface Texture:

fine sand

Hydrologic Group:

Class A - High infiltration rates. Soils are deep, well drained to

excessively drained sands and gravels.

Soil Drainage Class:

Well drained. Soils have intermediate water holding capacity. Depth to

water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min:

> 60 inches

Depth to Bedrock Max:

> 60 inches

	Soil Layer Information							
	Bou	ındary		Classi	fication			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)	
1	0 inches	36 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 7.80 Min: 6.60	
2	36 inches	74 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 8.40 Min: 6.60	
3	74 inches	80 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 8.40 Min: 6.60	

## OTHER SOIL TYPES IN AREA

Surficial Soil Types:

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: fine sandy loam

loamy fine sand sandy loam

Sandy loan

fine sandy loam loamy fine sand sandy loam

Shallow Soil Types: sandy clay loam

Deeper Soil Types: indurated

fine sand

gravelly - loamy fine sand

sandy loam clay loam loamy sand loam

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

#### WELL SEARCH DISTANCE INFORMATION

DATABASE

SEARCH DISTANCE (miles)

Federal USGS

1.000 Federal FRDS PWS

Nearest PWS within 1 mile

#### FEDERAL USGS WELL INFORMATION

MAP ID

WELL ID

LOCATION FROM TP

USGS0747252

1/2 - 1 Mile NNW

#### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID

WELL ID

LOCATION

FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

## STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (M	files)	DISTANCE FROM TP (M	files)
1/2 - 1 Mile	North	1/2 - 1 Mile	NNW
1/2 - 1 Mile	NNW	1/2 - 1 Mile	NNW
1/2 - 1 Mile	NNW	1/2 - 1 Mile	NNW
1/2 - 1 Mile	NNW	1/2 - 1 Mile	North
1/2 - 1 Mile	North	1/2 - 1 Mile	North
1/2 - 1 Mile	NNE	1/2 - 1 Mile	NNE
1/2 - 1 Mile	NNW	1/2 - 1 Mile	NNW
1/2 - 1 Mile	NNW	1/2 - 1 Mile	NNW
1/2 - 1 Mile	NW	1/2 - 1 Mile	NW
1/2 - 1 Mile	NNW	1/2 - 1 Mile	NNW
1/2 - 1 Mile	NW	1/2 - 1 Mile	NW
1/2 - 1 Mile	NW	1/2 - 1 Mile	NW
1/2 - 1 Mile	NW	1/2 - 1 Mile	NW
1/2 - 1 Mile	NNW	1/2 - 1 Mile	NNW
1/2 - 1 Mile	NNW	1/2 - 1 Mile	NNW
1/2 - 1 Mile	NNW	1/2 - 1 Mile	NNW
1/2 - 1 Mile	North	1/2 - 1 Mile	North
1/2 - 1 Mile	North	1/2 - 1 Mile	NNE
1/2 - 1 Mile	NE	1/2 - 1 Mile	NW

## STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
1/2 - 1 Mile West 1/4 - 1/2 Mile East 1/8 - 1/4 Mile WSW 1/4 - 1/2 Mile WSW 1/4 - 1/2 Mile WSW 1/2 - 1 Mile West 1/2 - 1 Mile West 1/4 - 1/2 Mile ESE 1/4 - 1/2 Mile ESE	1/2 - 1 Mile West 1/2 - 1 Mile East 1/8 - 1/4 Mile SW 1/4 - 1/2 Mile WSW 1/4 - 1/2 Mile WSW 1/2 - 1 Mile West 1/4 - 1/2 Mile ESE 1/4 - 1/2 Mile ESE 1/4 - 1/2 Mile ESE
1/8 - 1/4 Mile SSE 1/2 - 1 Mile West 1/4 - 1/2 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/8 - 1/4 Mile SSE 1/8 - 1/4 Mile SSE 1/8 - 1/4 Mile SW 1/8 - 1/4 Mile SW	1/8 - 1/4 Mile SSE 1/4 - 1/2 Mile ESE 1/4 - 1/2 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile East 1/8 - 1/4 Mile SSE 1/8 - 1/4 Mile SW 1/8 - 1/4 Mile SW 1/8 - 1/4 Mile SW

#### STATE OIL/GAS WELL INFORMATION

DISTA	NCE	•
FROM	TΡ	(Miles)

1/2 - 1 Mile WSW 1/2 - 1 Mile ESE 1/2 - 1 Mile West 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/4 - 1/2 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile WSW 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile WSW 1/2 - 1 Mile ESE 1/2 - 1 Mile SE 1/2 - 1 Mile ESE 1/4 - 1/2 Mile SSE 1/2 - 1 Mile SW 1/4 - 1/2 Mile SSW 1/2 - 1 Mile WSW 1/4 - 1/2 Mile SSE 1/4 - 1/2 Mile SSE 1/2 - 1 Mile SE 1/2 - 1 Mile SW 1/2 - 1 Mile SSE 1/2 - 1 Mile SE 1/2 - 1 Mile SE 1/2 - 1 Mile SSW 1/2 - 1 Mile South 1/2 - 1 Mile South 1/2 - 1 Mile SSE 1/2 - 1 Mile South 1/2 - 1 Mile South

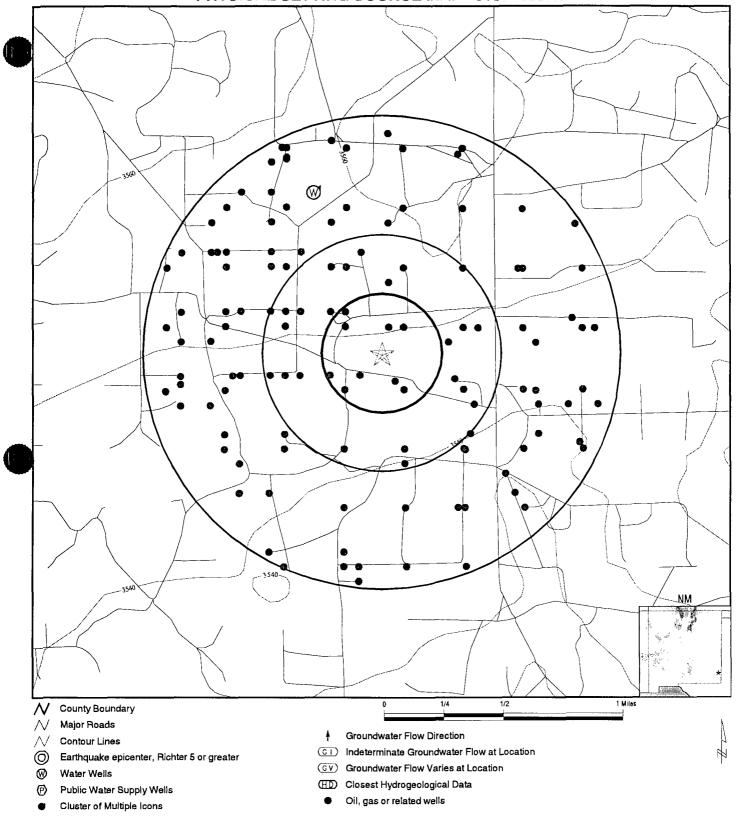
1/2 - 1 Mile SSW

1/2 - 1 Mile South

## DISTANCE FROM TP (Miles)

1/2 - 1 Mile WSW 1/2 - 1 Mile West 1/2 - 1 Mile West 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile WSW 1/2 - 1 Mile SE 1/2 - 1 Mile ESE 1/2 - 1 Mile SW 1/2 - 1 Mile WSW 1/2 - 1 Mile SE 1/2 - 1 Mile SE 1/2 - 1 Mile ESE 1/4 - 1/2 Mile SSE 1/2 - 1 Mile SW 1/4 - 1/2 Mile SSW 1/2 - 1 Mile SE 1/4 - 1/2 Mile SSE 1/2 - 1 Mile SW 1/2 - 1 Mile SE 1/2 - 1 Mile SW 1/2 - 1 Mile SSE 1/2 - 1 Mile SE 1/2 - 1 Mile SE 1/2 - 1 Mile South 1/2 - 1 Mile SSW 1/2 - 1 Mile South 1/2 - 1 Mile SSE 1/2 - 1 Mile South 1/2 - 1 Mile South 1/2 - 1 Mile SSW

## PHYSICAL SETTING SOURCE MAP - 01372035.1r



TARGET PROPERTY: ADDRESS: CITY/STATE/ZIP: LAT/LONG:

**JAMAR** Highway 8 MONUMENT NM 88265

32.5878 / 103.2731

CUSTOMER: CONTACT: INQUIRY#:

DATE:

RE/SPEC, Inc. John Bunch 01372035.1r

March 04, 2005 1:10 pm

Copyright © 2005 EDR, Inc. © 2003 GDT, Inc. Rel. 07/2003. All Rights Reserved.

Map ID Direction Distance Elevation Database EDR ID Number 1 NNW 1/2 - 1 Mile Higher **FED USGS** USGS0747252 USGS Agency: Site ID: 323551103163901 Site Name: 20S.37E.05.13440 Dec. Latitude: 32.59762 Dec. Longitude: -103.27798 NAD83 Coord Sys: State: NM County: Lea County 3555.00 Altitude: Hydrologic code: LandrethMonument Draws. New Mexico, Texas. Area = 4270 sq.mi. Topographic: Not Reported Ground-water other than Spring Site Type: Inven Date: Const Date: Not Reported Not Reported Single well, other than collector or Ranney type Well Type: Primary Aquifer: ALLUVIUM, BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS Not Reported Aquifer type:

Source:

Ground-water levels. Number of Measurements: 7

80

Not Reported

Not Reported

Well depth:

Hole depth:

Project no:

Ground-wate		Feet to		Feet below	Feet to
Date	Surface	Sealevel	Date	Surface	Sealevel
1996-03-14	30.75		1991-01-29	31.00	
1986-03-25	29.88		1981-02-12	28.11	
1976-01-30	24.48		1971-01-14	28.39	
1068-04-30	20.43				

Not Reported

Distance			Database	EDR ID Nun
orth /2 - 1 Mile			OIL_GAS	NMOG062037
	2000505057	DLID:	_	
Api ID:	3002525667 JMENT;GRAYBURG-SAN ANDR	Pool ID:	23000 001	
Well Name:	CITIES LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	162683	
Op. Name:	GRUY PETROLEUM MANAGEN	•	102000	
Latitude:	32.60109	ILITI OO.		
Longitude:	-103.2722	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	2310	
Ft. N/S dir:	S	Ft. E/W Dist:	2310	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
INW //2 - 1 Mile			OIL_GAS	NMOG070840
			5.12_5.115	
Api ID:	3002533919	Pool ID:	46970	
Pool Name: MONUMENT;		Well ID:	016	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.60065	<b>-</b>	_	
Longitude:	-103.27624	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	2140	
Ft. N/S dir:	S	Ft. E/W Dist:	1650	
Ft. E/W Dir:	W	Elevation:	3560 GL	
Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported Ongard	
INW /2 - 1 Mile			OIL_GAS	NMOG070784
Api ID:	3002533919	Pool ID:	47090	
Pool Name: MONUMENT;T		Well ID:	016	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.60065			
Longitude:	-103.27624	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	2140	
Ft. N/S dir:	S	Ft. E/W Dist:	1650	
Ft. E/W Dir:	W	Elevation:	3560 GL	
			Not Deported	
Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported Ongard	

Direction				EDD 15 **
istance		····	<u>Database</u>	EDR ID Num
NW			OIL CAS	NMOC049244
/2 - 1 Mile			OIL_GAS	NMOG048241
Api ID:	3002505915	Pool ID:	46990	
Pool Name: MONUM	•	Well ID:	010	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.60024	<b>-</b>	_	
Longitude:	-103.27978	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	560	
Ft. E/W Dir:	W	Elevation:	3572 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
inw				
/2 - 1 Mile			OIL_GAS	NMOG118709
Api ID:	3052505712	Pool ID:	47080	
Pool Name: MONUM	•	Well ID:	012	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.60023			
Longitude:	-103.27945	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
INW /2 - 1 Mile			OIL_GAS	NMOG048240
			OIL_GAG	1411100040240
Api ID:	3002505911	Pool ID:	23000	
	MONUMENT; GRAYBURG-SAN A		006	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.60023		_	
Longitude:	-103.27945	Section:	5	
Township:	20.0S	Range:	37E	
	L	Ft. N/S Dist:	1980	
Unit ID:	e e	Ft. E/W Dist:	660	
Ft. N/S dir:	S			
Ft. N/S dir: Ft. E/W Dir:	W	Elevation:	Not Reported	
Ft. N/S dir:				

irection istance		-·· <u>-</u>	Database	EDR ID Num
INW /2 - 1 Mile			OIL_GAS	NMOG118735
Api ID:	3052505711	Pool ID:	81400	
Pool Name: MONUMENT;	MCKEE-ELLENBURG (PRO GAS)	Well ID:	012	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.60023			
Longitude:	-103.27945	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
North /2 - 1 Mile			OIL_GAS	NMOG048182
Api ID:	3002505909	Pool ID:	76480	
Pool Name: EUMONT;YA	TES-7 RVRS-QUEEN (PRO GAS)	Well ID:	004	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.6002			
Longitude:	-103.27517	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	Κ	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft, E/W Dir:	W	Elevation:	3571 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				<del></del>
lorth //2 - 1 Mile			OIL_GAS	NMOG118720
Api ID:	3052505710	Pool ID:	23000	
Pool Name: EUNICE MON	IUMENT;GRAYBURG-SAN ANDRI	E%S/ell ID:	001	
Well Name:	LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.60017			
Longitude:	-103.27113	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	1980	
OTHERD.		Ft. E/W Dist:	1980	
Ft. N/S dir:	S	FI. E/W DISI.	.000	
	E	Elevation:	Not Reported	
Ft. N/S dir:				

rection stance			Database	EDR ID Num
_				
orth 2 - 1 Mile			OIL_GAS	NMOG048181
			_	
Api ID:	3002505904	Pool ID:	76480	
	TES-7 RVRS-QUEEN (PRO GAS)		008	
Well Name:	BRITT-LAUGHLIN COM	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.60017	o "	~	
Longitude:	-103.27113	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	3562 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
INE				
/2 - 1 Mile			OIL_GAS	NMOG048195
Api ID:	3002505918	Pool ID:	23000	
Pool Name: EUNICE MON	IUMENT;GRAYBURG-SAN ANDR	E%S/ellID:	009	
Well Name:	NORTH MONUMENT G/SA UNI	TCounty ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.60017			
Longitude:	-103.26685	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	1990	
Ft. N/S dir:	S	Ft. E/W Dist:	663	
Ft. E/W Dir:	E	Elevation:	3569 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
<u>.</u>				
NE /2 - 1 Mile			OIL_GAS	NMOG067628
Api ID:	3002531105	Pool ID:	76480	
Pool Name: EUMONT;YAT	TES-7 RVRS-QUEEN (PRO GAS)		006	
Well Name:	BRITT-LAUGHLIN COM	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN	•		
	32.59981	.*		
Latitude:	-103.26717	Section:	5	
Latitude: Longitude:		Range:	37E	
	20.0S	rtunge.		
Longitude:	20.0S I	Ft. N/S Dist:	1860	
Longitude: Township:	20.0S I S	-	1860 760	
Longitude: Township: Unit ID:	I S	Ft. N/S Dist:		
Longitude: Township: Unit ID: Ft. N/S dir:	1	Ft. N/S Dist: Ft. E/W Dist:	760	

Direction Distance		<u> </u>	Database	EDR ID Num
A. 11.47				
NW 2 - 1 Mile			OIL_GAS	NMOG071341
Api ID:	3002534327	Pool ID:	46970	
Pool Name: MONUMENT;		Well ID:	018Y	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.59965		_	
Longitude:	-103.27944	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1766	
Ft. N/S dir:	S	Ft. E/W Dist:	663	
Ft. E/W Dir:	W	Elevation:	3560 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
INW				
/2 - 1 Mile			OIL_GAS	NMOG071364
Api ID:	3002534327	Pool ID:	47090	
Pool Name: MONUMENT;	TUBB	Well ID:	018Y	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.59965			
Longitude:	-103.27944	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1766	
Ft. N/S dir:	S	Ft. E/W Dist:	663	
Ft, E/W Dir:	W	Elevation:	3560 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
INW /2 - 1 Mile			OIL_GAS	NMOG071175
				1411100071173
Api ID:	3002534205	Pool ID:	Not Reported	
Pool Name: Not Reported		Well ID:	018	
Well Name:	BERTHA BARBER	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.59955		_	
Longitude:	-103.27945	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1730	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	3560 GL	
<b>-</b>			Not Desembed	
Depth: Plugdate:	0 1998-02-12	Compdate: Datasource:	Not Reported Ongard	

virection vistance			Database	EDR ID Nur
INW /2 - 1 Mile			OIL_GAS	NMOG048194
Api ID:	3002505917	Pool ID:	Not Reported	
Pool Name: Not Reported		Well ID:	012	
Well Name:	BERTHA BARBER (DO NO	T USEC)ounty ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.59935			
Longitude:	-103.28053	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1653	
Ft. N/S dir:	S	Ft. E/W Dist:	330	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	1993-09-02	Datasource:	Ongard	
				<del></del>
W /2 - 1 Mile			OIL_GAS	NMOG048276
Api ID:	3002505948	Pool ID:	47080	
Pool Name: MONUMENT;		Well ID:	007	
Well Name:	G C MATTHEWS	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.59752			
Longitude:	-103.28267	Section:	6	
Township:	20.0S	Range:	37E	
Unit ID:	Р	Ft. N/S Dist:	990	
Ft. N/S dir:	S	Ft. E/W Dist:	330	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
W /2 - 1 Mile			OIL_GAS	NMOG048239
Api ID:	3002505902	Pool ID:	Not Reported	
Pool Name: Not Reported		Well ID:	005	
Well Name:	E M E SWD	County ID:	25	
County Name:	Lea	Operator ID:	19174	
Op. Name:	RICE OPERATING CO	•		
Latitude:	32.59752			
Longitude:	-103.28053	Section:	5	
	20.0\$	Range:	37E	
Township:	M	Ft. N/S Dist:	990	
Township: Unit ID:	IVI			
	S	Ft. E/W Dist:	330	
Unit ID:			330 3554 GL	
Unit ID: Ft. N/S dir:	S	Ft. E/W Dist:		

istance			Database	EDR ID Num
NW				
/2 - 1 Mile			OIL_GAS	NMOG048072
Api ID:	3002505901	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDRI		001	
Well Name:	E S ADKINS	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.59661			
Longitude:	-103.27946	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	М	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
INW		<del></del>		
/2 - 1 Mile			OIL_GAS	NMOG118749
Api ID:	3052505713	Pool ID:	46990	
Pool Name: MONUMENT;B	LINEBRY	Well ID:	005	
Well Name:	<b>EUNICE MONUMENT EUMONT</b>	SCAMODITY ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59661			
Longitude:	-103.27946	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
/2 - 1 Mile			OIL_GAS	NMOG118740
Api ID:	3052505772	Pool ID:	46990	
Pool Name: MONUMENT;B		Well ID:	012	
Well Name:	G C MATTHEWS	County ID:	25	
County Name:	Lea	Operator ID:	0	
	Not Reported	•		
	32.59659			
Longitude:	-103.28374	Section:	6	
Township:	20.0S	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Ft. E/W Dir: Depth:	E 0	Elevation: Compdate:	Not Reported Not Reported	

Direction Distance			Database	EDR ID Nur
W /2 - 1 Mile			OIL_GAS	NMOG118827
Api ID:	3052505770	Pool ID:	47020	
	G-SA)(CONSOLIDATED)**	Well ID:	012	
Well Name:	G C MATTHEWS	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported		-	
Latitude:	32.59659			
Longitude:	-103.28374	Section:	6	
Township:	20.0S	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
Ū	,			
w				
/2 - 1 Mile			OIL_GAS	NMOG118768
Api ID:	3052505770	Pool ID:	23000	
Pool Name: EUNICE MONU	UMENT;GRAYBURG-SAN ANDR	E%S/elliD:	012	
Well Name:	G C MATTHEWS	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59659			
Longitude:	-103.28374	Section:	6	
Township:	20.0\$	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
w				<del></del>
/2 - 1 Mile			OIL_GAS	NMOG118839
Api ID:	3052505773	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDRI		003	
Well Name:	G C MATTHEWS	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59659			
Longitude:	-103.28374	Section:	6	
Township:	20.0S	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
		O 1 1	Mot Donortod	
Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported Preongard	

Estado de defensa de la contrata del contrata de la contrata del contrata de la contrata del la contrata de la contrata del la contrata de la contrata del la contrata

Direction				
istance			Database	EDR ID Numb
N				
2 - 1 Mile			OIL_GAS	NMOG048256
Api ID:	3002505944	Pool ID:	23000	
	IONUMENT;GRAYBURG-SAN ANDR		003	
Well Name:	G C MATHEWS	County ID:	25	
County Name:	Lea	Operator ID:	9515	
Op. Name:	GULF OIL CORP			
Latitude:	32.59659			
Longitude:	-103.28374	Section:	6	
Township:	20.0S	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Hobbs	
				<del></del>
W /2 - 1 Mile			OIL_GAS	NMOG118712
Api ID:	3052505771	Pool ID:	46990	
Pool Name: MONUME	NT;BLINEBRY	Well ID:	007	
Well Name:	G C MATTHEWS	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59659			
Longitude:	-103.28374	Section:	6	
Township:	20.0S	Range:	37E	
Unit ID:	Р	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
NW /2 - 1 Mile			OIL_GAS	NMOG048253
Api ID:	3002505923	Pool ID:	76480	
Pool Name: EUMONT;	YATES-7 RVRS-QUEEN (PRO GAS)	Well ID:	001	
Well Name:	BRITT B	County ID:	25	
County Name:	Lea	Operator ID:	23762	
Op. Name:	UNION TEXAS PETROLEUM C	ORP		
Latitude:	32.59658			
	-103.27517	Section:	5	
Longitude:	20.0S	Range:	37E	
Longitude: Township:	20.03			
_	20.03 N	Ft. N/S Dist:	660	
Township:		Ft. N/S Dist: Ft. E/W Dist:	660 1980	
Township: Unit ID:	N			
Township: Unit ID: Ft. N/S dir:	N S	Ft. E/W Dist:	1980	

Direction Distance			Database	EDR ID Num
INW /2 - 1 Mile			OIL_GAS	NMOG118636
Api ID:	3052505716	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDR	LEMS/ell ID:	001	
Well Name:	BRITT B	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59658			
Longitude:	-103.27517	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
INW /2 - 1 Mile			OIL_GAS	NMOG118653
Api ID:	3052505714	Pool ID:	76480	
Pool Name: EUMONT;YAT	ES-7 RVRS-QUEEN (PRO GAS)	Well ID:	002	
Well Name:	BRITT B	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59658			
Longitude:	-103.27517	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W <sub>.</sub>	Elevation:	Not Reported	
Depth:	0 .	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
NW /2 - 1 Mile			OIL_GAS	NMOG118654
Api ID:	3052505717	Pool ID:	47080	
Pool Name: MONUMENT;F	PADDOCK	Well ID:	002	
Well Name:	BRITT B	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59658			
Longitude:	-103.27517	Section:	5	
Township:	20.0\$	Range:	37E	
•	N	Ft. N/S Dist:	660	
Unit ID:			1980	
Unit ID: Ft. N/S dir:	5	FL E/VV DISC		
	S W	Ft. E/W Dist: Elevation:		
Ft. N/S dir:	W 0	Elevation: Compdate:	Not Reported Not Reported	

istance			Database	EDR ID Nun
INW /2 - 1 Mile			OIL_GAS	NMOG118779
Api ID:	3052505715	Pool ID:	46990	
Pool Name: MONUMENT;	BLINEBRY	Well ID:	002	
Well Name:	BRITT B	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59658			
Longitude:	-103.27517	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	w	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
i laganto.	not no portou	Dataoodi oo.	rioongara	
INW				
/2 - 1 Mile			OIL_GAS	NMOG118792
Api ID:	3052505718	Pool ID:	76480	
•	ES-7 RVRS-QUEEN (PRO GAS)		002	
Well Name:	BRITT B	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported		•	
Latitude:	32.59658			
Longitude:	-103.27517	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	w	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
orth /2 - 1 Mile			OIL_GAS	NMOG118721
Api ID:	3052505720	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDRI		002	
Well Name:	LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	Sporator ID.	Ü	
Latitude:	32.59655			
Longitude:	-103.27112	Section:	5	
Township:	20.0S	Range:	3 37E	
-	0	Ft. N/S Dist:	660	
Unit ID:	S		660 1980	
	J	Ft. E/W Dist:		
Ft. N/S dir:	г	□(t:	NI-A D	
Ft. E/W Dir:	E	Elevation:	Not Reported	
	E 0 Not Reported	Elevation: Compdate: Datasource:	Not Reported Not Reported Preongard	

irection istance			<u>Database</u>	EDR ID Num
orth /2 - 1 Mile			OIL_GAS	NMOG118666
Api ID:	3052505719	Pool ID:	47080	
Pool Name: MONUMENT;F	ADDOCK	Well ID:	005	
Well Name:	LAUGHLIN B	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59655			
Longitude:	-103.27112	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	0	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	Ε	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
orth				
/2 - 1 Mile			OIL_GAS	NMOG048036
Api ID:	3002505905	Pool ID:	23000	
Pool Name: EUNICE MONU	JMENT;GRAYBURG-SAN ANDR	EMS/ellID:	002	
Well Name:	LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	9224	
Op. Name:	GRAHAM ROYALTY LTD			
Latitude:	32.59655			
Longitude:	-103.27112	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	0	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Hobbs	
NE 2 - 1 Mile			OIL_GAS	NMOG048132
Z - 1 Mille			OIL_GAS	NWIOG048132
Api ID:	3002505906	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDR		016	
Well Name:	NORTH MONUMENT G/SA UNI		25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.59651			
Longitude:	-103.26683	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
	Ε	Elevation:	Not Reported	
Ft. E/W Dir:				
Pt. E/W Dir: Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported Ongard	

Direction Distance			Database	EDR ID Numb
E 2 - 1 Mile			OIL_GAS	NMOG048238
Api ID:	3002505889	Pool ID:	23000	
Pool Name: EUNICE MON	IUMENT;GRAYBURG-SAN ANDR		013	
Well Name:	NORTH MONUMENT G/SA UNI	TCounty ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.59649			
Longitude:	-103.26255	Section:	4	
Township:	20.0S	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	3570 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				···
w				
2 - 1 Mile			OIL_GAS	NMOG048229
Api ID:	3002505903	Pool ID:	76480	
	TES-7 RVRS-QUEEN (PRO GAS)	Well ID:	003	
Well Name:	E S ADKINS	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	oporator to.	.50	
Latitude:	32.59571			
Longitude:	-103.28053	Section:	5	
Township:	20.0S	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	330	
Ft. E/W Dir:	W	Elevation:	Not Reported	
	0		Not Reported	
Depth: Plugdate:	Not Reported	Compdate: Datasource:	Ongard	
W 2 - 1 Mile			OIL_GAS	NMOG048085
Api ID:	3002505903	Pool ID:	47080	
Pool Name: MONUMENT;		Well ID:	003	
Well Name:	E S ADKINS	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	, / <del>-</del> /	* *	
Latitude:	32.59571			
Longitude:	-103.28053	Section:	5	
Township:	20.0\$	Range:	37E	
•	M	Ft. N/S Dist:	330	
Unit ID:		Ft. E/W Dist:	330	
Unit ID; Ft. N/S dir:	S			
Ft. N/S dir:	S W		Not Reported	
Ft. N/S dir: Ft. E/W Dir:	W	Elevation:	Not Reported	
Ft. N/S dir:			Not Reported Not Reported Ongard	

The bot recent as the first the second transfer at the second transfer to the contract to the

Direction Distance		·	Database	EDR ID Num
NW				
/2 - 1 Mile			OIL_GAS	NMOG048144
Api ID:	3002505924	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDRI		002	
Well Name:	BRITT-LAUGHLIN COM	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.59568	0 43	r.	
Longitude:	-103.27625	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	1650	
Ft. E/W Dir:	W	Elevation:	3565 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
INW			OH CAS	NMOG048222
2 - 1 Mile			OIL_GAS	NWOG048222
Api ID:	3002505924	Pool ID:	76480	
Pool Name: EUMONT;YAT	ES-7 RVRS-QUEEN (PRO GAS)	Well ID:	002	
Well Name:	BRITT-LAUGHLIN COM	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.59568			
Longitude:	-103.27625	Section:	5	
Township:	20.0\$	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	1650	
Ft. E/W Dir:	W	Elevation:	3565 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
<i>N</i> 2 - 1 Mile			OIL_GAS	NMOG048206
	0000505050	D 11D	_	
Api ID:	3002505953	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDR		012	
Well Name:	G C MATTHEWS	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.59566	Castians	C	
Longitude:	-103.28481	Section:	6	
Township:	20.0S	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	990	
Ft. E/W Dir:	E	Elevation:	3556 GL	
	0	Compdate:	Not Reported	
Depth: Plugdate:	Not Reported	Datasource:	Ongard	

Direction Distance		Database	EDR ID Numb
/W /2 - 1 Mile		OIL_GAS	NMOG048207
Api ID: 3002505953	Pool ID:	76480	
Pool Name: EUMONT; YATES-7 RVRS-QUEEN (PRO GAS)	) Well ID:	012	
Well Name: G C MATTHEWS	County ID:	25	
County Name: Lea	Operator ID:	4323	
Op. Name: CHEVRON U S A INC	·		
Latitude: 32.59566			
Longitude: -103.28481	Section:	6	
Township: 20.0S	Range:	37E	
Unit ID: P	Ft. N/S Dist:	330	
Ft. N/S dir: S	Ft. E/W Dist:	990	
Ft. E/W Dir: E	Elevation:	3556 GL	
Depth: 0	Compdate:	Not Reported	
Plugdate: Not Reported	Datasource:	Ongard	
lorth			
/2 - 1 Mile		OIL_GAS	NMOG048192
Api ID: 3002505907	Pool ID:	76480	
Pool Name: EUMONT; YATES-7 RVRS-QUEEN (PRO GAS)	) Well ID:	005	
Well Name: BRITT-LAUGHLIN COM	County ID:	25	
County Name: Lea	Operator ID:	6473	
Op. Name: DOYLE HARTMAN			
Latitude: 32.59565			
Longitude: -103.27219	Section:	5	
Township: 20.0S	Range:	37E	
Unit ID: O	Ft. N/S Dist:	330	
Ft. N/S dir: S	Ft. E/W Dist:	2310	
Ft. E/W Dir: E	Elevation:	3566 GL	
Depth: 0	Compdate:	Not Reported	
Plugdate: Not Reported	Datasource:	Ongard	
E 2 - 1 Mile		OIL_GAS	NMOG072041
Api ID: 3002534975	Pool ID:	96764	
Pool Name: MONUMENT; ABO, SOUTHEAST	Well ID:	001	
Well Name: LAUGHLIN	County ID:	25	
County Name: Lea	Operator ID:	14245	
Op. Name: MATADOR OPERATING CO			
Latitude: 32.59558			
Longitude: -103.25875	Section:	4	
Township: 20.0S	Range:	37E	
Unit ID: N	Ft. N/S Dist:	330	
Ft. N/S dir: S	Ft. E/W Dist:	1830	
Ft. E/W Dir: W	Elevation:	3555 GL	
Depth: 0	Compdate:	Not Reported	
Plugdate: Not Reported	Datasource:	Ongard	
Ft. E/W Dir: W Depth: 0	Elevation: Compdate:	3555 GL Not Reported	

Distance			Database	EDR ID Num
_				
IE /2 - 1 Mile			OIL_GAS	NMOG071988
Api ID:	3002534975	Pool ID:	47090	
Pool Name: MONUMENT;	TUBB	Well ID:	001	
Well Name:	LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	14245	
Op. Name:	MATADOR OPERATING CO			
Latitude:	32.59558			
Longitude:	-103.25875	Section:	4	
Township:	20.0S	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	1830	
Ft. E/W Dir:	W	Elevation:	3555 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
IE				
/2 - 1 Mile			OIL_GAS	NMOG071931
Api ID:	3002534975	Pool ID:	57000	
Pool Name: SKAGGS;DRII	NKARD	Well ID:	001	
Well Name:	LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	14245	
Op. Name:	MATADOR OPERATING CO	•		
Latitude:	32.59558			
Longitude:	-103.25875	Section:	4	
Township:	20.0S	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	1830	
Ft. E/W Dir:	W	Elevation:	3555 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
w				
/2 - 1 Mile			OIL_GAS	NMOG048329
Api ID:	3002506023	Pool ID:	46990	
Pool Name: MONUMENT;		Well ID:	008	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	189535	
Op. Name:	SAPIENT ENERGY CORPORA			
Latitude:	32.59389			
Longitude:	-103.28054	Section:	8	
Township:	20.0\$	Range:	37E	
	D	Ft. N/S Dist:	330	
Unit ID:			330	
Unit ID: Ft. N/S dir:	N	Ft. E/W Dist:	330	
Ft. N/S dir:	N W	Ft. E/W Dist: Elevation:		
	N W O	Ft. E/W Dist: Elevation: Compdate:	3557 GL Not Reported	

W /2 - 1 Mile Api ID:				
2 - 1 Mile				
Ani ID:			OIL_GAS	NMOG048343
· •	3002506021	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDR		004	
Well Name:	BERTHA J BARBER	County ID:	25	
	Lea	Operator ID:	495	
•	AMERADA HESS CORP			
_	32.59388			
<b>—</b> · · · <b>J</b> · · · · · · · ·	-103.2784	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	330	
Ft. N/S dir:	N	Ft. E/W Dist:	990	
Ft. E/W Dir:	W	Elevation:	3566 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
			<u> </u>	
VNW /2 - 1 Mile			OIL_GAS	NMOG048277
Api ID:	3002505978	Pool ID:	47080	
Pool Name: MONUMENT;P.	ADDOCK	Well ID:	012	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	189535	
Op. Name:	SAPIENT ENERGY CORPORAT	ΓΙΟΝ		
Latitude:	32.59387			
Longitude:	-103.28375	Section:	7	
Township:	20.0S	Range:	37E	
•	Α	Ft. N/S Dist:	330	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	3557 GL	
	0	Compdate:	Not Reported	
	Not Reported	Datasource:	Ongard	
/NW /2 - 1 Mile			OIL_GAS	NMOG048315
Api ID:	3002505978	Pool ID:	96968	
Pool Name: MONUMENT;TI		Well ID:	012	
	BERTHA J BARBER	County ID:	25	
	Lea	Operator ID:	189535	
•	SAPIENT ENERGY CORPORAT	•		
-	32.59387			
	-103.28375	Section:	7	
	20.0S	Range:	37E	
•	A	Ft. N/S Dist:	330	
	N	Ft. E/W Dist:	660	
	E	Elevation:	3557 GL	
	0	Compdate:	Not Reported	
	Not Reported	Datasource:	110t Nopolica	

istance			<u> Database</u>	EDR ID Nur
/NW /2 - 1 Mile			OIL_GAS	NMOG048111
Api ID:	3002505978	Pool ID:	46970	
Pool Name: MONUMENT	:ABO	Well ID:	012	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	189535	
Op. Name:	SAPIENT ENERGY CORPO	· ·		
Latitude:	32.59387			
Longitude:	-103.28375	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	A	Ft. N/S Dist:	330	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	3557 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
vnw			-11 -1-	
/2 - 1 Mile			OIL_GAS	NMOG048110
Api ID:	3002505977	Pool ID:	46990	
Pool Name: MONUMENT	;BLINEBRY	Well ID:	009	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	189535	
Op. Name:	SAPIENT ENERGY CORPO	RATION		
Latitude:	32.59386			
Longitude:	-103.28439	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	Α	Ft. N/S Dist:	330	
Ft. N/S dir:	N	Ft. E/W Dist:	855	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
VNW				
/2 - 1 Mile			OIL_GAS	NMOG048268
Api ID:	3002505974	Pool ID:	23000	
	NUMENT;GRAYBURG-SAN AI	NDRE®/ell ID:	002	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	•		
Latitude:	32.59385			
Longitude:	-103.28483	Section:	7	
	20.0\$	Range:	37E	
		Ft. N/S Dist:	330	
Township:	A			
Township: Unit ID:	A N	Ft. E/W Dist:	990	
Township: Unit ID: Ft. N/S dir:	N	Ft. E/W Dist: Elevation:	990 3574 GL	
Township: Unit ID:		Ft. E/W Dist: Elevation: Compdate:	990 3574 GL Not Reported	

Direction Distance			<u>Database</u>	EDR ID Num
INW				
/4 - 1/2 Mile			OIL_GAS	NMOG048259
Api ID:	3002506007	Pool ID:	46990	
Pool Name: MONUMENT;		Well ID:	002	
Well Name:	BRITT B 8	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.59385	<b>.</b>	_	
Longitude:	-103.27411	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	C	Ft. N/S Dist:	330	
Ft. N/S dir:	N	Ft. E/W Dist:	2310	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				<del></del>
VNW /2 - 1 Mile			OIL_GAS	NMOG048307
Api ID:	3002505997	Pool ID:	46990	
Pool Name: MONUMENT;	BLINEBRY	Well ID:	010	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.59381			
Longitude:	-103.28697	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	В	Ft. N/S Dist:	330	
Ft. N/S dir:	N	Ft. E/W Dist:	1650	
Ft, E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
W /2 - 1 Mile			OIL_GAS	NMOG048344
Api ID:	3002506028	Pool ID:	47080	
Pool Name: MONUMENT;F		Well ID:	015	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	1271	
Op. Name:	ATLANTIC RICHFIELD CO			
Latitude:	32.59299			
Longitude:	-103.28055	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	330	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported			

irection istance			Database	EDR ID Num
w				
/2 - 1 Mile			OIL_GAS	NMOG118729
Api ID:	3052505799	Pool ID:	23000	
Pool Name: EUNICE MON	UMENT;GRAYBURG-SAN AND	REWell ID:	004	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59298			
Longitude:	-103.27948	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
IW /2 - 1 Mile			OIL_GAS	NMOG118714
Api ID:	3052505798	Pool ID:	47080	
Pool Name: MONUMENT;F	PADDOCK	Well ID:	015	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59298			
Longitude:	-103.27948	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
/2 - 1 Mile			OIL_GAS	NMOG056720
Api ID:	3002520436	Pool ID:	96838	
Pool Name: DRY & ABND		Well ID:	001	
Well Name:	BARBER ADKINS UNIT	County ID:	25	
County Name:	Lea	Operator ID:	20885	
Op. Name:	SINCLAIR OIL & GAS CO			
Latitude:	32.59298			
Longitude:	-103.27948	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dír:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Ft. E/W Dir: Depth: Plugdate:	W 0 Not Reported	Elevation: Compdate: Datasource:	Not Reported Not Reported Hobbs	

District and the control of the cont

Direction Distance			Database	EDR ID Num
NW 2 - 1 Mile			OIL_GAS	NMOG118769
Api ID:	3052505774	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDRE		002	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59296			
Longitude:	-103.28377	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	Α	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:		Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
inw				
/4 - 1/2 Mile			OIL_GAS	NMOG048342
Api ID:	3002506008	Pool ID:	47080	
Pool Name: MONUMENT; P	ADDOCK	Well ID:	003	
Well Name:	BRITT B 8	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.59296			
Longitude:	-103.27627	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	C	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1650	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:		Compdate:	Not Reported	
Plugdate:	1994-04-09	Datasource:	Ongard	
•				
INW /4 - 1/2 Mile			OIL_GAS	NMOG118854
Api ID:	3052505797	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDRE	E%S/ell ID:	001	
Well Name:	BRITT B 8	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	•		
Latitude:	32.59295			
Longitude:	-103.27519	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:		Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
	w	Elevation:	Not Reported	
Ft F/VV Dir.			i tot i topolica	
Ft. E/W Dir:			·	
Pt. E/W DIF: Depth: Plugdate:		Compdate: Datasource:	Not Reported Preongard	

TRIBLE OF THE TABLE AND A MARKET AND REPORT OF THE THEORY AND A SHOP AND A SHOP A SHOP

Direction Distance			Database	EDR ID Num
NW				
/4 - 1/2 Mile			OIL_GAS	NMOG048172
Api ID:	3002506006	Pool ID:	76480	
· · · · · · · · · · · · · · · · · · ·	ES-7 RVRS-QUEEN (PRO GAS)		001	
Well Name:	BRITT-LAUGHLIN COM	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.59295		_	
Longitude:	-103.27519	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	С	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	3566 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
INW /4 - 1/2 Mile			OIL_GAS	NMOG118753
Api ID:	3052505797	Pool ID:	47020	
Pool Name: MONUMENT (	G-SA)(CONSOLIDATED)**	Well ID:	001	
Well Name:	BRITT B 8	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59295			
Longitude:	-103.27519	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	С	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
INF				
INE /4 - 1/2 Mile			OIL_GAS	NMOG048317
Api ID:	3002506012	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDR	E%S/ellID:	002	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC			
Latitude:	32.59291			
Longitude:	-103.2711	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	В	Ft. N/\$ Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	3466 GL	
Donth	0	Compdate:	Not Reported	
Depth: Plugdate:	*	oompaato.		

Direction Distance			Database	EDR ID Numb
NE /4 - 1/2 Mile			OIL_GAS	NMOG048173
Api ID:	3002506012	Pool ID:	76480	
	ES-7 RVRS-QUEEN (PRO GAS)		002	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC			
Latitude:	32.59291			
Longitude:	-103.2711	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	В	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft, E/W Dir:	E	Elevation:	3466 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				<del></del>
/NW /2 - 1 Mile			OIL_GAS	NMOG048271
Api ID:	3002505992	Pool ID:	23000	
Pool Name: EUNICE MONI	UMENT;GRAYBURG-SAN ANDR	EWS/ell ID:	004	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.59289			
Longitude:	-103.28806	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	В	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	Ε	Elevation:	3565 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				<del></del>
NW 2 - 1 Mile			OIL_GAS	NMOG118795
Api ID:	3052505775	Pool ID:	23000	
Pool Name: EUNICE MONI	JMENT;GRAYBURG-SAN ANDR	E%S/ell ID:	004	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59289			
Longitude:	-103.28806	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	В	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
I C. LIVI DII.				
Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported Preongard	

Direction				
istance		-	Database	EDR ID Num
_				
4 - 1/2 Mile			OIL_GAS	NMOG048171
Api ID:	3002506005	Pool ID:	76480	
	TES-7 RVRS-QUEEN (PRO GAS)		004	
Well Name:	BRITT-LAUGHLIN COM	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.59288		_	
Longitude:	-103.26682	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	A	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	3567 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
E /4 - 1/2 Mile			OIL_GAS	NMOG118696
Api ID:	3052505796	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDRI		004	
Well Name:	LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59288		_	
Longitude:	-103.26682	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	A	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660 Nat Baranta I	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported	
Fluguate.	Not Reported	Datasource.	Preongard	
NE /2 - 1 Mile			OII CAS	NMOG048293
			OIL_GAS	NWOG046293
Api ID:	3002506034	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDRI		001	
Well Name:	V LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
	32.59286	o .:		
Latitude:	-103.26286	Section:	9	
Longitude:			37E	
Longitude: Township:	20.0S	Range:		
Longitude: Township: Unit ID:	20.0S D	Ft. N/S Dist:	660	
Longitude: Township: Unit ID: Ft. N/S dir:	20.0S D N	Ft. N/S Dist: Ft. E/W Dist:	660 560	
Longitude: Township: Unit ID: Ft. N/S dir: Ft. E/W Dir:	20.0S D N W	Ft. N/S Dist: Ft. E/W Dist: Elevation:	660 560 Not Reported	
Longitude: Township: Unit ID: Ft. N/S dir:	20.0S D N	Ft. N/S Dist: Ft. E/W Dist:	660 560	

THE MINE AND THE TERM OF THE PROPERTY OF THE P

irection istance			Database	EDR ID Nur
NE				
/2 - 1 Mile			OIL_GAS	NMOG048379
Api ID:	3002506034	Pool ID:	76480	
	ES-7 RVRS-QUEEN (PRO GAS)		001	
Well Name:	V LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.59286			
Longitude:	-103.26286	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	560	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Hobbs	
ine			OIL CAS	NINOC449700
/2 - 1 Mile			OIL_GAS	NMOG118799
Api ID:	3052505818	Pool ID:	76480	
Pool Name: EUMONT;YAT	ES-7 RVRS-QUEEN (PRO GAS)	Well ID:	001	
Well Name:	V LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59286			
Longitude:	-103.26253	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
ine			011.040	NINO C448700
/2 - 1 Mile			OIL_GAS	NMOG118790
Api ID:	3052505817	Pool ID:	23000	
Pool Name: EUNICE MON	UMENT;GRAYBURG-SAN ANDR	EMS/ell ID:	001	
Well Name:	V LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.59286			
Longitude:	-103.26253	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Donth	0	Compdate:	Not Reported	
Depth: Plugdate:	Not Reported		Preongard	

stance			Database	EDR ID Num
NE 2 - 1 Mile			OIL_GAS	NMOG118855
Api ID:	3052505816	Pool ID:	23000	
,	NUMENT;GRAYBURG-SAN ANDR		002	
Well Name:	V LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	o portator to	•	
Latitude:	32.59286			
Longitude:	-103.25825	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	C	Ft. N/S Dist:	660	
Ft, N/S dir:	N	Ft. E/W Dist:	1980	
Ft, E/W Dir:	W	Elevation:		
	0		Not Reported	
Depth: Plugdate:	Not Reported	Compdate: Datasource:	Not Reported	
Fluguate.	Not Neported	Datasource.	Preongard	
NE /2 - 1 Mile			OIL_GAS	NMOG048391
Api ID:	3002506035	Pool ID:	76480	
Pool Name: EUMONT;YAT	TES-7 RVRS-QUEEN (PRO GAS)	Well ID:	002	
Well Name:	V LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	·		
Latitude:	32.59286			
Longitude:	-103.25825	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	С	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	3560 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
orth 4 - 1/2 Mile			OIL_GAS	NMOG048308
Api ID:	3002506016	Pool ID:	96764	
Pool Name: MONUMENT;		Well ID:	006	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC			
Latitude:	32.59202			
	-103.27216	Section:	8	
Longitude:	20.0\$	Range:	37E	
Longitude: Township:		Ft. N/S Dist:	990	
Township:	В			
Township: Unit ID:	B N			
Township: Unit ID: Ft. N/S dir:	N	Ft. E/W Dist:	2310	
Township: Unit ID:				

		OIL_GAS	NMOG048186
3002506016	Pool ID:	47080	
		• • •	
Lea	Operator ID:	962	
	Range:		
В	Ft. N/S Dist:	990	
N	Ft. E/W Dist:	2310	
E	Elevation:	3554 GL	
0	Compdate:	Not Reported	
Not Reported	Datasource:	Ongard	
			<del></del>
		OIL_GAS	NMOG048366
3002506024	Pool ID:	46990	
BLINEBRY		010	
BERTHA J BARBER		25	
Lea	=		
- + +·	·	, , , , , , , , , , , , , , , , , , , ,	
	Section:	8	
	•	-	
Not Reported	Datasource:	Ongard	
		OIL_GAS	NMOG048162
3002506024	Pool ID:	47080	
BERTHA J BARBER		25	
Lea			
	•		
	Section:	8	
	<del>-</del>		
0	Compdate:	Not Reported	
		LACK LIGHTIER	
	PADDOCK BERTIE WHITMIRE Lea ARCH PETROLEUM INC 32.59202 -103.27216 20.0S B N E 0 Not Reported  3002506024 BLINEBRY BERTHA J BARBER Lea SAPIENT ENERGY CORPOR 32.59027 -103.28059 20.0S E N W 0 Not Reported	ADDOCK BERTIE WHITMIRE Lea	3002506016

The Control of the Co

eistance		-	Database	EDR ID Nur
VNW /2 - 1 Mile			OIL_GAS	NMOG048278
Api ID:	3002505981	Pool ID:	76480	
Pool Name: EUMONT;YAT	ES-7 RVRS-QUEEN (PRO GAS)	Well ID:	003	
Well Name:	BARBER GAS COM	County ID:	25	
County Name:	Lea	Operator ID:	990	
Op. Name:	ARCO PERMIAN			
Latitude:	32.59026			
Longitude:	-103.28272	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	330	
Ft. E/W Dir:	E	Elevation:	3554 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
VNW /4 - 1/2 Mile			OIL_GAS	NMOG048249
Api ID:	3002506026	Pool ID:	96838	
Pool Name: DRY & ABND		Well ID:	013	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	20885	
Op. Name:	SINCLAIR OIL & GAS CO			
Latitude:	32.59026			
Longitude:	-103.27951	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported Hobbs	
	<u>'</u>			<del></del>
VNW /4 - 1/2 Mile			OIL_GAS	NMOG048309
Api ID:	3002506022	Pool ID:	76480	
	ES-7 RVRS-QUEEN (PRO GAS)	Well ID:	001	
Well Name:	BARBER GAS COM	County ID:	25	
County Name:	Lea	Operator ID:	990	
Op. Name:	ARCO PERMIAN			
Latitude:	32.59025			
Longitude:	-103.27844	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	990	
Ft. E/W Dir:	W	Elevation:	3562 GL	
	0	Compdate:	Not Reported	
Depth: Plugdate:	Not Reported	Datasource:	Ongard	

istance			Database	EDR ID Nun
'NW				
2 - 1 Mile			OIL_GAS	NMOG048170
Api ID:	3002505979	Pool ID:	46990	
Pool Name: MONUMENT;	BLINEBRY	Well ID:	014	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	189535	
Op. Name:	SAPIENT ENERGY CORPO	RATION		
Latitude:	32.59024			
Longitude:	-103.2838	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
W /4 - 1/2 Mile			OIL_GAS	NMOG048292
Api ID:	3002506015	Pool ID:	46990	
Pool Name: MONUMENT;	BLINEBRY	Well ID:	005	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC			
Latitude:	32.59023			
Longitude:	-103.2763	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	1650	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	1997-09-17	Datasource:	Ongard	
W /8 - 1/4 Mile			OIL_GAS	NMOG048318
Api ID:	3002506018	Pool ID:	96764	
Pool Name: MONUMENT;		Well ID:	008	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC	•		
Latitude:	32.59023			
Longitude:	-103.27523	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	3552 GL	
Depth:	0	Compdate:	Not Reported	

Direction Distance			Database	EDR ID Numl
N 8 - 1/4 Mile			OIL_GAS	NMOG048237
Ami ID.	2002505040	DLID:	_	
Api ID: Pool Name: MONUME	3002506018	Pool ID: Well ID:	47080 008	
Well Name:	•		25	
County Name:	BERTIE WHITMIRE	County ID: Operator ID:		
,	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC			
Latitude:	32.59023	0 11	•	
Longitude:	-103.27523	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	3552 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
/NW /2 - 1 Mile			OIL_GAS	NMOG048280
Z - 1 Mile			OIL_GAS	NWOG048280
Api ID:	3002505998	Pool ID:	46990	
Pool Name: MONUME	ENT;BLINEBRY	Well ID:	011	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN	·		
Latitude:	32.59019			
Longitude:	-103.28701	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	G	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	1650	
Ft. E/W Dir:	Ë	Elevation:	3565 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
ast /2 - 1 Mile			OIL_GAS	NMOG071241
Api ID:	3002534341	Pool ID:	96764	
	ENT;ABO, SOUTHEAST	Well ID:	008	
Well Name:	W H LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO	opolator ib.	11021	
Latitude:	32.58984			
Longitude:	-103.25896	Section:	9	
Township:	20.0S	Range:	9 37E	
Unit ID:	20.05 F	_		
	r N	Ft. N/S Dist:	1760 1750	
Lt N/S dir	18	Ft. E/W Dist:	1750	
Ft. N/S dir:	14/	Elevation:	2545 (2)	
Ft, E/W Dir:	W	Elevation:	3545 GL	
	W 0 Not Reported	Elevation: Compdate: Datasource:	3545 GL Not Reported Ongard	

Distance			Database	EDR ID Num
VNW				
/4 - 1/2 Mile			OIL_GAS	NMOG118715
Api ID:	3052505800	Pool ID:	23000	
Pool Name: EUNICE MON	IUMENT;GRAYBURG-SAN ANDR	E%ell ID:	001	
Well Name:	BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58935			
Longitude:	-103.27953	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
NNW 1/4 - 1/2 Mile			OIL_GAS	NMOG118797
Api ID:	3052505800	Pool ID:	47020	
Pool Name: MONUMENT	(G-SA)(CONSOLIDATED)**	Well ID:	001	
Well Name:	BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	•		
Latitude:	32.58935			
Longitude:	-103.27953	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	E	Ft. N/S Dist;	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
VNW /4 - 1/2 Mile			OIL_GAS	NMOG048283
Api ID:	3002506027	Pool ID:	47080	
Pool Name: MONUMENT;		Well ID:	013Y	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	169415	
Op. Name:	FALCON CREEK RESOURCES			
Latitude:	32.58935			
Longitude:	-103.27953	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	3552 GL	
Depth:	0	Compdate:	Not Reported	

Direction				
Distance	·		Database	EDR ID Number
West 1/2 - 1 Mile			OIL_GAS	NMOG118796
Api ID:	3052505788	Pool ID:	47080	
Pool Name: MONUMEN	T;PADDOCK	Well ID:	018	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	•		
Latitude:	32.58933			
Longitude:	-103,28381	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	H	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	Ē	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
r laguato.	not nopolica	Databoaroo.	roongara	
				<del></del>
West 1/2 - 1 Mile			OIL_GAS	NMOG118595
Api ID:	3052505787	Pool ID:	23000	
•	NUMENT;GRAYBURG-SAN A		001	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported		•	
Latitude:	32.58933			
Longitude:	-103.28381	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
NW 1/8 - 1/4 Mile			OIL_GAS	NMOG048248
Api ID:	3002506013	Pool ID:	23000	
	NUMENT;GRAYBURG-SAN A		003	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC			
Latitude:	32.58932			
Longitude:	-103.27524	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	3555 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	

irection istance			Database	EDR ID Nun
IE 1/8 Mile			OIL_GAS	NMOG048236
Api ID:	3002506017	Pool ID:	Not Reported	
Pool Name: Not Reported		Well ID:	008	
Well Name:	E M E SWD	County ID:	25	
County Name:	Lea	Operator ID:	19174	
Op. Name:	RICE OPERATING CO			
Latitude:	32.58929			
Longitude:	-103.27214	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	G	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	2310	
Ft. E/W Dir:	E	Elevation:	3560 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
E				
8 - 1/4 Mile			OIL_GAS	NMOG118813
Apì ID:	3052505802	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDR		001	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58929		_	
Longitude:	-103.27107	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	G	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
				<del></del>
E 8 - 1/4 Mile			OIL_GAS	NMOG118697
Api ID:	3052505801	Pool ID:	47080	
Pool Name: MONUMENT;F	PADDOCK	Well ID:	007	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58929			
Longitude:	-103.27107	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	G	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft, E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Jonnpaaro.	Preongard	

Api ID: 3002506011 Pool ID: 75480 Pool Name: EUMONT;YATES-7 RVRS-QUEEN (PRO GAS) Well ID: 001 Well Name: BERTIE WHITMIRE County ID: 25 County Name: Lea Operator ID: 962 Op. Name: ARCH PETROLEUM INC Latitude: 32.58929 Longitude: -103.27107 Section: 8 Township: 20.0S Range: 37E Unit ID: G Ft. N/S Dist: 1980 Ft. N/S dir: N Ft. EAW Dist: 1980 Ft. Lew Dir: E Elevation: 3557 GL Depth: D Compdate: Not Reported Datasource: Organd  Api ID: 3052505803 Pool ID: 22800 Pool Name: EUMONT;YATES-7 RVRS-QUEEN (OIL) Well ID: 001 Well Name: BERTIE WHITMIRE County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58929 Longitude: -103.27107 Section: 8 Township: 20.0S Range: 37E Unit ID: G Ft. N/S Dist: 1980 Ft. N/S dir: N Ft. E/W Dist: 1980 Pool Name: MONUMENT (G-SA)(CONSOLIDATED)** Well ID: 03 Opepth: 0 Compdate: Not Reported Plugdate: Not Reported Datasource: Preongard  Preongard  Preongard  Preongard  Plugdate: Not Reported Datasource: Preongard  Preongard  Plugdate: Not Reported Datasource: Preongard  Preongard  Plugdate: Not Reported Datasource: Preongard  Preongard  Preongard  Plugdate: Not Reported Datasource: Preongard  Plugdate: Not Rep	Distance			Database	EDR ID Num
Api ID:	IF				
Pool Name: EUMONT;YATES-7 RYRS-QUEEN (PRO GAS)   Well ID:	/8 - 1/4 Mile			OIL_GAS	NMOG048213
Well Name:   BERTIE WHITMIRE   County ID:   25	•				
County Name:					
Op. Name:         ARCH PETROLEUM INC           Latitude:         32.58929           Longitude:         -103.27107         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. NS Dist:         1980           FI. NS dir:         N         Ft. EW Dist:         1980           FI. EW Dir:         E         Elevation:         3557 GL           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Ongard           VEE         I/8 - 1/4 Mile         OIL_GAS           VEI/8 - 1/4 Mile         OIL_GAS           VIII. Application:         Not Reported           VEI/8 - 1/4 Mile         OIL_GAS           VIII. Application:         Not Reported		BERTIE WHITMIRE	,		
Laitlude:	County Name:		Operator ID:	962	
Longitude:	Op. Name:	ARCH PETROLEUM INC			
Township:   20.0S	Latitude:	32.58929			
Unit ID:	Longitude:	-103.27107	Section:	8	
Ft. E/W Dir:	Township:	20.0S	Range:	37E	
Ft. E/W Dir:	Unit ID:	G	Ft. N/S Dist:	1980	
Depth:   0	Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Net	Ft. E/W Dir:	E	Elevation:	3557 GL	
Not Reported   Datasource: Ongard				Not Reported	
NE   1/8 - 1/4   Mile	•	-	•		
R - 1/4 Mile	. laguato.		Databoaros.	ongai a	
Api ID:					
Pool Name: EUMONT;YATES-7 RVRS-QUEEN (OIL)   Well ID:   001				OIL_GAS	NMOG118897
Well Name:         BERTIE WHITMIRE         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Latitude:         32.58929           Longitude:         -103.27107         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Preongard           Vest //2 - 1 Mile           OIL_GAS           Api ID:         3052505785         Pool ID:         47020           Pool Name: MONUMENT (G-SA)(CONSOLIDATED)**         Well ID:         003           Well Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported           Latitude:         32.58926            Longitude:         -103.28809         Section:         7           Township:         <	Api ID:	3052505803	Pool ID:	22800	
County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         32.58929           Longitude:         -103.27107         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. EW Dir:         E         Elevation:         Not Reported           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Preongard           Nest         7         County Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0         0           Op. Name:         Not Reported         Latitude:         32.58926           Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dirt:         E         Elev	Pool Name: EUMON	T;YATES-7 RVRS-QUEEN (OIL)	Well ID:	001	
Op. Name:         Not Reported           Latitude:         32.58929           Longitude:         -103.27107         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Preongard           Not Reported           Vell Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Latitude:         32.58926           Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	Well Name:	BERTIE WHITMIRE	County ID:	25	
Latitude: 32.58929  Longitude: -103.27107 Section: 8  Township: 20.0S Range: 37E  Unit ID: G Ft. N/S Dist: 1980  Ft. N/S dir: N Ft. E/W Dist: 1980  Ft. E/W Dir: E Elevation: Not Reported  Depth: 0 Compdate: Not Reported  Plugdate: Not Reported Datasource: Preongard  Not Reported  Pool Name: MONUMENT (G-SA)(CONSOLIDATED)** Well ID: 003  Well Name: BRITT County ID: 25  County Name: Lea Operator ID: 0  Op. Name: Not Reported  Latitude: 32.58926  Longitude: -103.28809 Section: 7  Township: 20.0S Range: 37E  Unit ID: G Ft. N/S Dist: 1980  Ft. E/W Dir: E Elevation: Not Reported  Ft. E/W Dist: 1980  Ft. E/W Dir: E Elevation: Not Reported	County Name:	Lea	Operator ID:	0	
Latitude: 32.58929  Longitude: -103.27107 Section: 8  Township: 20.0S Range: 37E  Unit ID: G Ft. N/S Dist: 1980  Ft. R/S dir: N Ft. E/W Dist: 1980  Ft. E/W Dir: E Elevation: Not Reported  Depth: 0 Compdate: Not Reported  Plugdate: Not Reported Datasource: Preongard   Not Reported  Pool Name: MONUMENT (G-SA)(CONSOLIDATED)** Well ID: 003  Well Name: BRITT County ID: 25  County Name: Lea Operator ID: 0  Op. Name: Not Reported  Latitude: 32.58926  Longitude: -103.28809 Section: 7  Township: 20.0S Range: 37E  Unit ID: G Ft. N/S Dist: 1980  Ft. E/W Dir: E Elevation: Not Reported  Ft. E/W Dist: 1980  Ft. E/W Dir: E Elevation: Not Reported	•	Not Reported	•		
Longitude:	•	•			
Township:   20.0S			Section:	8	
Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Preongard           Not Reported           Api ID:         3052505785         Pool ID:         47020           Pool Name:         MONUMENT (G-SA)(CONSOLIDATED)**         Well ID:         003           Well Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Latitude:         32.58926           Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	_		Range:		
Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Preongard           Nest           I/2 - 1 Mile         OIL_GAS           Api ID:         3052505785         Pool ID:         47020           Pool Name:         MONUMENT (G-SA)(CONSOLIDATED)**         Well ID:         003           Well Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Latitude:         32.58926           Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	,		-	- · · · ·	
Ft. E/W Dir:         E         Elevation:         Not Reported           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Preongard           Nest           I/2 - 1 Mile         OIL_GAS           Api ID:         3052505785         Pool ID:         47020           Pool ID:         47020           Pool ID:         003           Well Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Latitude:         32.58926           Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported					
Depth:   0					
Plugdate: Not Reported   Datasource: Preongard					
Api ID:   3052505785   Pool ID:   47020     Pool Name: MONUMENT (G-SA)(CONSOLIDATED)**   Well ID:   003     Well Name:   BRITT   County ID:   25     County Name:   Lea   Operator ID:   0     Op. Name:   Not Reported     Latitude:   32.58926     Longitude:   -103.28809   Section:   7     Township:   20.0S   Range:   37E     Unit ID:   G   Ft. N/S Dist:   1980     Ft. N/S dir:   N   Ft. E/W Dist:   1980     Ft. E/W Dir:   E   Elevation:   Not Reported					
Api ID:         3052505785         Pool ID:         47020           Pool Name: MONUMENT (G-SA)(CONSOLIDATED)**         Well ID:         003           Well Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Latitude:         103.28809         Section:         7           Longitude:         -103.28809         Section:         7         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported			····		
Pool Name: MONUMENT (G-SA)(CONSOLIDATED)**         Well ID:         003           Well Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Image: Not Reported         Image: Not Reported         Image: Not Reported           Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported				OIL_GAS	NMOG118811
Well Name:         BRITT         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Image: Not Reported         Image: Not Reported         Image: Not Reported           Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	Api ID:	3052505785	Pool ID:	47020	
County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         1           Latitude:         32.58926         5           Longitude:         -103.28809         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	Pool Name: MONUM	ENT (G-SA)(CONSOLIDATED)**	Well ID:	003	
County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         1           Latitude:         32.58926         5           Longitude:         -103.28809         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	Well Name:	BRITT	County ID:	25	
Op. Name:         Not Reported           Latitude:         32.58926           Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	County Name:	Lea	Operator ID:		
Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	Op. Name:	Not Reported			
Longitude:         -103.28809         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	Latitude:	•			
Township:         20.0S         Range:         37E           Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	Longitude:	-103.28809	Section:	7	
Unit ID:         G         Ft. N/S Dist:         1980           Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported					
Ft. N/S dir:         N         Ft. E/W Dist:         1980           Ft. E/W Dir:         E         Elevation:         Not Reported	•		_		
Ft. E/W Dir: E Elevation: Not Reported					
Depth: 0 Compdate: Not Reported		0	Compdate:	Not Reported	
Plugdate: Not Reported Datasource: Preongard					

irection istance			Database	EDR ID Num
'est 2 - 1 Mile			OIL_GAS	NMOG118852
Api ID:	3052505786	Pool ID:	46990	
Pool Name: MONUME	ENT;BLINEBRY	Well ID:	011	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58926			
Longitude:	-103.28809	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	G	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
				<del></del>
/est				
/2 - 1 Mile			OIL_GAS	NMOG118867
Api tD:	3052505785	Pool ID:	23000	
Pool Name: EUNICE I	MONUMENT;GRAYBURG-SA	N ANDREWell ID:	003	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	•		
Latitude:	32.58926			
Longitude:	-103.28809	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	G	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	Е	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
NE 4 - 1/2 Mile			OIL_GAS	NMOG048273
Api ID:	3002506014	Pool ID:	23000	
Pool Name: EUNICE N	MONUMENT;GRAYBURG-SA	NANDREWS/ellID:	004	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	9515	
Op. Name:	GULF OIL CORP	•		
Latitude:	32.58926			
Longitude:	-103.26678	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1980	
	N	Ft. E/W Dist:	660	
Ft. N/S dir:			Not Reported	
	E 0	Elevation: Compdate:	Not Reported Not Reported	

irection istance			Database	EDR ID Num
NE /4 - 1/2 Mile			OIL_GAS	NMOG118798
Api ID:	3052505804	Pool ID:	23000	
	ONUMENT;GRAYBURG-SAN ANI		004	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	operator is:	· ·	
Latitude:	32.58926			
Longitude:	-103.26678	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1980	
Ft, N/S dir:	N	Ft. E/W Dist:	660	
Ft, E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
r ruguato.	riot rioporiou	batassarss.	rroongara	
				<del></del>
NE /4 - 1/2 Mile			OIL_GAS	NMOG118698
Api ID:	3052505804	Pool ID:	47020	
•	NT (G-SA)(CONSOLIDATED)**	Well ID:	004	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	•		
Latitude:	32.58926			
Longitude:	-103.26678	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
NE /4 - 1/2 Mile			OIL_GAS	NMOG057004
Api ID:	3002520686	Pool ID:	23000	
	ONUMENT;GRAYBURG-SAN ANI		009	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC	- p	- <del></del>	
Latitude:	32.58924			
Longitude:	-103.26572	Section:	8	
	20.0S	Range:	37E	
	Н	Ft. N/S Dist:	1980	
Township:				
Township: Unit ID:		Ft. E/W Dist:	330	
Township: Unit ID: Ft. N/S dir:	N	Ft. E/W Dist:	330 3549 GI	
Township: Unit ID: Ft. N/S dir: Ft. E/W Dir:	N E	Elevation:	3549 GL	
Township: Unit ID: Ft. N/S dir:	N			

irection istance			Database	EDR ID Nur
NE /4 - 1/2 Mile			OIL_GAS	NMOG056852
Api ID:	3002520686	Pool ID:	76480	
Pool Name: EUMONT	;YATES-7 RVRS-QUEEN (PRO GAS)	Well ID:	009	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC			
Latitude:	32.58924			
Longitude:	-103.26572	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	330	
Ft. E/W Dir:	E	Elevation:	3549 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
East /2 - 1 Mile			OIL_GAS	NMOG048367
Api ID:	3002506038	Pool ID:	23000	
	MONUMENT;GRAYBURG-SAN ANDR		005	
Well Name:	NORTH MONUMENT G/SA UNI	TCounty ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.58923			
Longitude:	-103.2625	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				<del></del>
iast /2 - 1 Mile			OIL_GAS	NMOG048331
Api ID:	3002506039	Pool ID:	23000	
Pool Name: EUNICE N	MONUMENT;GRAYBURG-SAN ANDR	EWell ID:	006	
Well Name:	NORTH MONUMENT G/SA UNI	TCounty ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.58923			
Longitude:	-103.25822	Section:	9	
Township:	20.08	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1980	
	N	Ft. E/W Dist:	1980	
Ft. N/S dir:				
Ft. E/W Dir:	W	Elevation:	Not Reported	
			Not Reported Not Reported Ongard	

rection stance			Database	EDR ID Num
ast 2 - 1 Mile			OIL_GAS	NMOG069188
Api ID:	3002532465	Pool ID:	76480	
Pool Name: EUMONT;YAT	ES-7 RVRS-QUEEN (PRO GAS)	Well ID:	006	
Well Name:	W H LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.58923			
Longitude:	-103.25734	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	2250	
Ft. E/W Dir:	W	Elevation:	3544 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
Vest /2 - 1 Mile			OIL_GAS	NMOG048146
Api ID:	3002505973	Pool ID:	23000	
Pool Name: EUNICE MON	UMENT;GRAYBURG-SAN ANDR	EMSvell ID:	001	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.58841			
Longitude:	-103.28489	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	н	Ft. N/S Dist:	2310	
Ft. N/S dir:	N	Ft. E/W Dist:	990	
Ft. E/W Dir:	E	Elevation:	3560 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
Vest				
/2 - 1 Mile			OIL_GAS	NMOG048270
Api ID:	3002505991	Pool ID:	76480	
Pool Name: EUMONT;YAT	ES-7 RVRS-QUEEN (PRO GAS)	Well ID:	003	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.58837			
Longitude:	-103.28703	Section:	7	
Township:	20.0\$	Range:	37E	
LL-MID.	G	Ft. N/S Dist:	2310	
Unit ID:	. N1	Ft. E/W Dist:	1650	
Ft. N/S dir:	· N			
Ft. N/S dir: Ft. E/W Dir:	E	Elevation:	3568 GL	
Ft. N/S dir:				

Direction				
istance			Database	EDR ID Numb
ast				
4 - 1/2 Mile			OIL_GAS	NMOG071422
Api ID:	3002534483	Pool ID:	Not Reported	
Pool Name: Not Reported		Well ID:	010	
Well Name:	BERTIE WHITMIRE	County ID:	25	
County Name:	Lea	Operator ID:	962	
Op. Name:	ARCH PETROLEUM INC			
Latitude:	32.58836			
Longitude:	-103.26785	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	2310	
Ft. N/S dir:	N	Ft. E/W Dist:	990	
Ft. E/W Dir:	E	Elevation:	3547 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
ast /2 - 1 Mile			OIL_GAS	NMOG069977
Api ID:	3002533141	Pool ID:	47090	
Pool Name: MONUMENT;	TUBB	Well ID:	007	
Well Name:	W H LAUGHLIN	County ID:	25	
County Name:	Lea	Operator ID:	14021	
Op. Name:	MARATHON OIL CO			
Latitude:	32.58833			
Longitude:	-103.26159	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	2310	
Ft. N/S dir:	N	Ft. E/W Dist:	940	
Ft. E/W Dir:	W	Elevation:	3554 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
vsw				
/8 - 1/4 Mile			OIL_GAS	NMOG048114
Api ID:	3002506003	Pool ID:	46990	
Pool Name: MONUMENT;		Well ID:	003	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.58633			
	-103.27634	Section:	8	
Longitude:		Range:	37E	
Township:	20.0S	_		
Township: Unit ID:	K .	Ft. N/S Dist:	2310	
Township: Unit ID: Ft. N/S dir:	K S	Ft. N/S Dist: Ft. E/W Dist:	1650	
Township: Unit ID: Ft. N/S dir: Ft. E/W Dir:	K S W	Ft. N/S Dist: Ft. E/W Dist: Elevation:	1650 Not Reported	
Township: Unit ID: Ft. N/S dir:	K S	Ft. N/S Dist: Ft. E/W Dist:	1650	

Naa -41 a.a				
Direction Distance			Database	EDR ID Numb
W /8 - 1/4 Mile			OIL_GAS	NMOG048212
Api ID:	3002506004	Pool ID:	46990	
Pool Name: MONUMENT		Well ID:	004	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.58633			
Longitude:	-103.2742	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	2310	
Ft. N/S dir:	S	Ft. E/W Dist:	2310	
Ft. E/W Dir:	w	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
/SW 4 - 1/2 Mile			ON CAS	NMOG048174
4 - 1/2 Mile			OIL_GAS	NWOG048174
Api ID:	3002506025	Pool ID:	46990	
Pool Name: MONUMENT	;BLINEBRY	Well ID:	011	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	189535	
Op. Name:	SAPIENT ENERGY CORPORAT			
Latitude:	32.58632			
Longitude:	-103.28063	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	2310	
Ft. N/S dir:	S	Ft. E/W Dist:	330	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
	•			
sw .			011 040	NNOO048274
4 - 1/2 Mile			OIL_GAS	NMOG048274
Api ID:	3002506029	Pool ID:	76480	
Pool Name: EUMONT:YA	TES-7 RVRS-QUEEN (PRO GAS)		004	
Well Name:	BARBER GAS COM	County ID:	25	
County Name:	Lea	Operator ID:	990	
	ARCO PERMIAN			
Op. Name:	00 50000			
Op. Name: Latitude:	32.58632			
•	32.58632 -103.27956	Section:	8	
Latitude:		Section: Range:	8 3 <b>7</b> E	
Latitude: Longitude:	-103.27956			
Latitude: Longitude: Township:	-103.27956 20.0S	Range:	37E	
Latitude: Longitude: Township: Unit ID:	-103.27956 20.0S L	Range: Ft. N/S Dist:	37E 2310	
Latitude: Longitude: Township: Unit ID: Ft. N/S dir:	-103.27956 20.0S L S	Range: Ft. N/S Dist: Ft. E/W Dist:	37E 2310 660	

Direction				
stance			Database	EDR ID Num
sw				
4 - 1/2 Mile			OIL_GAS	NMOG048330
Api ID:	3002506029	Pool ID:	47080	
Pool Name: MONUME	•	Well ID:	004	
Well Name:	BARBER GAS COM	County ID:	25	
County Name:	Lea	Operator ID:	990	
Op. Name:	ARCO PERMIAN			
Latitude:	32.58632		_	
Longitude:	-103.27956	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	<b>L</b>	Ft. N/S Dist:	2310	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	3550 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
/SW /4 - 1/2 Mile			OIL_GAS	NMOG048282
Api ID:	3002506020	Pool ID:	23000	
Pool Name: EUNICE N	MONUMENT;GRAYBURG-SAN A	ANDREWS/ell ID:	003	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	·		
Latitude:	32.58632			
Longitude:	-103.27849	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	2310	
Ft. N/S dir:	S	Ft. E/W Dist:	990	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
/est /2 - 1 Mile			OIL_GAS	NMOG048316
Api ID:	3002505982	Pool ID:	47080	
Pool Name: MONUME	NT;PADDOCK	Well ID:	019	
Well Name:	BERTHA J BARBER	County ID:	25	
	Lea	Operator ID:	189535	
County Name:	SAPIENT ENERGY CORPO	ORATION		
County Name: Op. Name:	32.5863			
•		0 41 -	7	
Op. Name:	-103.28278	Section:		
Op. Name: Latitude:	-103.28278 20.0S	Section: Range:	37E	
Op. Name: Latitude: Longitude: Township: Unit ID:				
Op. Name: Latitude: Longitude: Township:	20.0S	Range:	37E	
Op. Name: Latitude: Longitude: Township: Unit ID:	20.0S I	Range: Ft. N/S Dist:	37E 2310	
Op. Name: Latitude: Longitude: Township: Unit ID: Ft. N/S dir:	20.0S I S	Range: Ft. N/S Dist: Ft. E/W Dist:	37E 2310 330	

istance			Database	EDR ID Nur
est				
/2 - 1 Mile			OIL_GAS	NMOG048185
Api ID:	3002505980	Pool ID:	47080	
Pool Name: MONUMENT;F		Well ID:	017	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	1271	
Op. Name:	ATLANTIC RICHFIELD CO			
Latitude:	32.58629		_	
Longitude:	-103.28331	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:		Ft. N/S Dist:	2310	
Ft. N/S dir:	S	Ft. E/W Dist:	495	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Hobbs	
Vest			01.010	
/2 - 1 Mile			OIL_GAS	NMOG048281
Api ID:	3002506000	Pool ID:	23000	
Pool Name: EUNICE MONI	JMENT;GRAYBURG-SAN ANDRI	E%S/ell ID:	013	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	6473	
Op. Name:	DOYLE HARTMAN			
Latitude:	32.58624			
Longitude:	-103.28706	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	2310	
Ft. N/S dir:	S	Ft. E/W Dist:	1650	
Ft. E/W Dir:	E	Elevation:	3562 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE				·
04 - 1/2 Mile			OIL_GAS	NMOG061702
Api ID:	3002525292	Pool ID:	47080	
Pool Name: MONUMENT;P		Well ID:	013	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.5861			
Longitude:	-103.26739	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	2223	
Ft. N/S dir:	S	Ft. E/W Dist:	853	
FL N/O UII.				
Ft. E/W Dir:	E	Elevation:	3547 GL	
	E 0	Elevation: Compdate:	3547 GL Not Reported	

Discotton				
Direction Distance			_Database	EDR ID Number
ESE 1/4 - 1/2 Mile	•		OIL_GAS	NMOG061606
Api ID:	3002525292	Pool ID:	47090	
Pool Name: MONUMENT;	TUBB	Well ID:	013	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.5861			
Longitude:	-103.26739	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	2223	
Ft. N/S dir:	S	Ft. E/W Dist:	853	
Ft. E/W Dir:	E	Elevation:	3547 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
ESE 1/4 - 1/2 Mile			OIL_GAS	NMOG061719
Api ID:	3002525292	Pool ID:	58595	
Pool Name: TEAGUE;GLC	RIETA-UPPER PADDOCK, SW	Well ID:	013	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON USAINC	•		
Latitude:	32.5861			
Longitude:	-103.26739	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	2223	
Ft. N/S dir:	S	Ft. E/W Dist:	853	
Ft. E/W Dir:	E	Elevation:	3547 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
<del>,</del>				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
ESE 1/4 - 1/2 Mile			OIL_GAS	NMOG061655
Api ID:	3002525292	Pool ID:	46990	
Pool Name: MONUMENT:		Well ID:	013	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC	•		
Latitude:	32.5861			
Longitude:	-103.26739	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	2223	
Ft. N/S dir:	S	Ft. E/W Dist:	853	
Ft. E/W Dir:	E	Elevation:	3547 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
•	·		-	

stance			Database	EDR ID Num
SE /4 - 1/2 Mile			OIL_GAS	NMOG061646
Api ID:	3002525292	Pool ID:	76480	
•	ES-7 RVRS-QUEEN (PRO GAS)		013	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC	•		
Latitude:	32.5861			
Longitude:	-103.26739	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	2223	
Ft. N/S dir:	S	Ft. E/W Dist:	853	
Ft. E/W Dir:	E	Elevation:	3547 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				· · · · · ·
SE				
/8 - 1/4 Mile			OIL_GAS	NMOG048378
Api ID:	3002506031	Pool ID:	46990	
Pool Name: MONUMENT;	3LINEBRY	Well ID:	003	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PRO	DDUCTION INC		
Latitude:	32.58596			
Longitude:	-103.27168	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	j	Ft. N/S Dist:	2173	
Ft. N/S dir:	S	Ft. E/W Dist:	2173	
Ft. E/W Dir:	E	Elevation:	3546 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE				
/8 - 1/4 Mile			OIL_GAS	NMOG048285
Api ID:	3002506031	Pool ID:	47080	
Pool Name: MONUMENT;F		Well ID:	003	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PRO			
Latitude:	32.58596			
Longitude:	-103.27168	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	2173	
EL NUO dies	S	Ft. E/W Dist:	2173	
Ft. N/S dir:				
Ft. N/S dir: Ft. E/W Dir:	E	Elevation:	3546 GL	
	E 0	Elevation: Compdate:	3546 GL Not Reported	

rection stance			Database	EDR ID Nur
est 2 - 1 Mile			OIL_GAS	NMOG071354
Api ID:	3002534330	Pool ID:	Not Reported	
Pool Name: Not Reported		Well ID:	002	
Well Name:	BARBER FEDERAL	County ID:	25	
County Name:	Lea	Operator ID:	5073	
Op. Name:	CONOCO INC			
Latitude:	32.58574			
Longitude:	-103.28706	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	2130	
Ft. N/S dir:	S	Ft. E/W Dist:	1650	
Ft. E/W Dir:	E	Elevation:	3551 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE /4 - 1/2 Mile			OIL_GAS	NMOG118754
Api ID:	3052505805	Pool ID:	23000	
	UMENT;GRAYBURG-SAN		002	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58544			
Longitude:	-103.26675	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
SE /4 - 1/2 Mile			OIL_GAS	NMOG048260
Api ID:	3002506032	Pool ID:	23000	
Pool Name: EUNICE MON	UMENT;GRAYBURG-SAN	ANDREWEYell ID:	002	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION	& PRODUCTION INC		
Latitude:	32.58544			
Longitude:	-103.26675	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
rt. 14/0 dil.				
Ft. E/W Dir:	Ε	Elevation:	Not Reported	
	E 0	Elevation: Compdate:	Not Reported Not Reported	

Direction				
Direction Distance		· · ·	Database	EDR ID Number
ESE 1/2 - 1 Mile			OIL_GAS	NMOG048416
Api ID:	3002506041	Pool ID:	76480	
	IT;YATES-7 RVRS-QUEEN (PF	· · · · · · · · · · · · · · · · · · ·	001	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:		ON & PRODUCTION INC		
Latitude:	32.58544	<b>.</b>		
Longitude:	-103.26247	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	3552 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
ESE				
1/2 - 1 Mile			OIL_GAS	NMOG118814
Api ID:	3052505824	Pool ID:	23000	
Pool Name: EUNICE	MONUMENT; GRAYBURG-SA	N ANDREWEII ID:	009	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58544			
Longitude:	-103.26247	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
ESE 1/2 - 1 Mile			OIL_GAS	NMOG118856
Api ID:	3052505823	Pool ID:	23000	
•	MONUMENT;GRAYBURG-SA		001	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	,		
Latitude:	32.58544			
Longitude:	-103.26247	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	w	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
- <b>-</b>	- In		· · · <b>· · ·</b> · · · ·	

Direction				
Direction Distance			Database	EDR ID Num
ESE 1/2 - 1 Mile			OIL_GAS	NMOG118884
Api ID:	3052505825	Pool ID:	76480	
Pool Name: EUMONT;YA	TES-7 RVRS-QUEEN (PRO GAS)	Well ID:	009	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58544			
Longitude:	-103.26247	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1980	
Ft, N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
East  /2 - 1 Mile			OH CAS	NMOG048286
72 - 1 Mille			OIL_GAS	1414103046266
Api ID:	3002506044	Pool ID:	23000	
Pool Name: EUNICE MOI	NUMENT;GRAYBURG-SAN ANDR	E%S/ell ID:	004	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PRO	DUCTION INC		
Latitude:	32.58544			
Longitude:	-103.25819	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1980	
Ft, N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SSE				
/8 - 1/4 Mile			OIL_GAS	NMOG048284
		<b></b>	00000	
Api ID:	3002506030	Pool ID:	23000	
	3002506030 NUMENT;GRAYBURG-SAN ANDRI		001	
Pool Name: EUNICE MON	NUMENT;GRAYBURG-SAN ANDRI	EMS/ell ID:	001	
Pool Name: EUNICE MON Well Name:	NUMENT;GRAYBURG-SAN ANDRI T ANDERSON	EMS/ell ID: County ID: Operator ID:	001 25	
Pool Name: EUNICE MON Well Name: County Name:	NUMENT;GRAYBURG-SAN ANDRI T ANDERSON Lea	EMS/ell ID: County ID: Operator ID:	001 25	
Pool Name: EUNICE MON Well Name: County Name: Op. Name:	NUMENT;GRAYBURG-SAN ANDRI T ANDERSON Lea TEXACO EXPLORATION & PRO	EMS/ell ID: County ID: Operator ID:	001 25	
Pool Name: EUNICE MON Well Name: County Name: Op. Name: Latitude:	NUMENT;GRAYBURG-SAN ANDRI T ANDERSON Lea TEXACO EXPLORATION & PRO 32.58543	Eℓ ID: County ID: Operator ID: DDUCTION INC	001 25 22351	
Pool Name: EUNICE MON Well Name: County Name: Op. Name: Latitude: Longitude:	NUMENT; GRAYBURG-SAN ANDRI T ANDERSON Lea TEXACO EXPLORATION & PRO 32.58543 -103.27104	E%ell ID: County ID: Operator ID: DDUCTION INC Section:	001 25 22351 8	
Pool Name: EUNICE MON Well Name: County Name: Op. Name: Latitude: Longitude: Township:	NUMENT; GRAYBURG-SAN ANDRI T ANDERSON Lea TEXACO EXPLORATION & PRO 32.58543 -103.27104 20.0S	E%ell ID: County ID: Operator ID: DDUCTION INC Section: Range:	001 25 22351 8 37E	
Pool Name: EUNICE MON Well Name: County Name: Op. Name: Latitude: Longitude: Township: Unit ID:	NUMENT; GRAYBURG-SAN ANDRI T ANDERSON Lea TEXACO EXPLORATION & PRO 32.58543 -103.27104 20.0S J	ESE/ell ID: County ID: Operator ID: DDUCTION INC Section: Range: Ft. N/S Dist:	001 25 22351 8 37E 1980 1980	
Pool Name: EUNICE MON Well Name: County Name: Op. Name: Latitude: Longitude: Township: Unit ID: Ft. N/S dir:	NUMENT; GRAYBURG-SAN ANDRI T ANDERSON Lea TEXACO EXPLORATION & PRO 32.58543 -103.27104 20.0S J S	EM/ell ID: County ID: Operator ID: DUCTION INC Section: Range: Ft. N/S Dist: Ft. E/W Dist:	001 25 22351 8 37E 1980	

Direction				
Distance			Database	EDR ID Number
SSE 1/8 - 1/4 Mile			OIL_GAS	NMOG118742
Api ID:	3052505807	Pool ID:	47080	
Pool Name: MONUMENT	;PADDOCK	Well ID:	003	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58543			
Longitude:	-103.27104	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
SSE 1/8 - 1/4 Mile			OIL_GAS	NMOG118755
Api ID:	3052505806	Pool ID:	23000	
	NUMENT;GRAYBURG-SAN ANDR	E%/ell ID:	001	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	•		
Latitude:	32.58543			
Longitude:	-103.27104	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
SW 1/8 - 1/4 Mile			OIL_GAS	NMOG048328
Api ID:	3002506001	Pool ID:	76480	
•	TES-7 RVRS-QUEEN (PRO GAS)		001	
Well Name:	T ANDERSON .	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	•		
Latitude:	32.58542			
Longitude:	-103.27528	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	3543 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	

irection istance			Database	EDR ID Nun
<i>N</i> 8 - 1/4 Mile			OIL_GAS	NMOG118868
Api ID:	3052505808	Pool ID:	46990	
Pool Name: MONUMENT;		Well ID:	003	
Well Name:	TANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	Operator ID.	C	
Latitude:	32.58542			
Longitude:	-103.27528	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
	0		•	
Depth:	· ·	Compdate: Datasource:	Not Reported	
Plugdate:	Not Reported	Datasource.	Preongard	
		·		
W /8 - 1/4 Mile			OIL_GAS	NMOG118771
Api ID:	3052505809	Pool ID:	47080	
Pool Name: MONUMENT;	PADDOCK	Well ID:	003	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58542			
Longitude:	-103.27528	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
				·
:W /8 - 1/4 Mile			OIL_GAS	NMOG118912
Api ID:	3052505811	Pool ID:	76480	
	ES-7 RVRS-QUEEN (PRO GAS)		004	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58542			
Longitude:	-103.27528	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1980	
	S	Ft. E/W Dist:	1980	
Ft. N/S dir:				
Ft. E/W Dir:	W	Elevation:	Not Reported	
	W 0	Elevation: Compdate:	Not Reported Not Reported	

Direction Distance			Database	EDR ID Num
W 8 - 1/4 Mile			OIL_GAS	NMOG118911
Api ID:	3052505810	Pool ID:	23000	
	MONUMENT;GRAYBURG-SAN A		001	
Well Name:	T ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58542			
Longitude:	-103.27528	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
/SW /2 - 1 Mile			OIL_GAS	NMOG118770
Api ID:	3052505789	Pool ID:	46990	
Pool Name: MONUME	NT;BLINEBRY	Well ID:	017	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58538			
Longitude:	-103.28385	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	ľ	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
/SW /2 - 1 Mile			OIL_GAS	NMOG118788
Api ID:	3052505790	Pool ID:	47080	
Pool Name: MONUME		Well ID:	017	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	-		
Latitude:	32.58538			
Longitude:	-103.28385	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
			Not Bonorlad	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Ft. E/W Dir: Depth:	0	Compdate:	Not Reported	

irection istance			Database	EDR ID Numb
SE /2 - 1 Mile			OIL_GAS	NMOG069686
Api ID:	3002532881	Pool ID:	63780	
Pool Name: WEIR;BL	NEBRY	Well ID:	016	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & F	RODUCTION INC		
Latitude:	32.58537			
Longitude:	-103.26157	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1955	
Ft. N/S dir:	S	Ft. E/W Dist:	940	
Ft. E/W Dir:	W	Elevation:	3547 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
Vest /2 - 1 Mile			OIL_GAS	NMOG118853
Api ID:	3052505791	Pool ID:	47020	
	ENT (G-SA)(CONSOLIDATED)**	Well ID:	013	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58531			
Longitude:	-103.28814	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
Vest /2 - 1 Mile			OIL GAS	NMOG118741
		_	_	
Api ID:	3052505792	Pool ID:	46990	
Pool Name: MONUME		Well ID:	013	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58531	011 -	_	
Longitude:	-103.28814	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported Preongard	

irection				
istance			<u>Database</u>	EDR ID Numb
/est				
2 - 1 Mile			OIL_GAS	NMOG118896
Api ID:	3052505791	Pool ID:	23000	
	NUMENT;GRAYBURG-SAN		013	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58531	• "	_	
Longitude:	-103.28814	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	1980	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	Е	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
SE 2 - 1 Mile ·			OIL_GAS	NMOG068312
Api ID:	3002531727	Pool ID:	96764	
Pool Name: MONUMENT	;ABO, SOUTHEAST	Well ID:	013	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION	& PRODUCTION INC		
Latitude:	32.58454			
Longitude:	-103.25712	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	Κ	Ft. N/S Dist:	1653	
Ft. N/S dir:	S	Ft. E/W Dist:	2307	
Ft. E/W Dir:	W	Elevation:	3541 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE				
2 - 1 Mile			OIL_GAS	NMOG068339
Api ID:	3002531727	Pool ID:	47090	
Pool Name: MONUMENT		Well ID:	013	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION	& PRODUCTION INC		
	32.58454			
Latitude:	-103.25712	Section:	9	
Latitude: Longitude:	-100.20112			
	20.0\$	Range:	37E	
Longitude:	20.0\$ K	Range: Ft. N/S Dist:	37E 1653	
Longitude: Township:	20.0\$			
Longitude: Township: Unit ID:	20.0\$ K	Ft. N/S Dist:	1653 2307 3541 GL	
Longitude: Township: Unit ID: Ft. N/S dir:	20.0S K S	Ft. N/S Dist: Ft. E/W Dist:	1653 2307	

rection stance			Database	EDR ID Num
SE 2 - 1 Mile			OIL_GAS	NMOG068260
Api ID:	3002531727	Pool ID:	63780	
Pool Name: WEIR;BLINEE		Well ID:	013	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:		ON & PRODUCTION INC	22551	
Latitude:	32.58454	71 41 11000011011 1110		
Longitude:	-103.25712	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1653	
Ft. N/S dir:	S	Ft. E/W Dist:	2307	
Ft. E/W Dir:	w	Elevation;	3541 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
			g	
SE				
/2 - 1 Mile			OIL_GAS	NMOG068281
Api ID:	3002531727	Pool ID:	10450	
Pool Name: CASS;PENN		Well ID:	013	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATIO	ON & PRODUCTION INC		
Latitude:	32.58454			
Longitude:	-103.25712	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1653	
Ft. N/S dir:	S	Ft. E/W Dist:	2307	
Ft. E/W Dir:	W	Elevation:	3541 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE  4 - 1/2 Mile			OIL GAS	NMOG070127
			<del>-</del>	1411/00070121
Api ID:	3002533296	Pool ID:	46990	
Pool Name: MONUMENT;		Well ID:	005	
Well Name:	TANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:		N & PRODUCTION INC		
Latitude:	32.58453		_	
Longitude:	-103.26601	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	1	Ft. N/S Dist:	1650	
Ft. N/S dir:	S	Ft. E/W Dist:	430	
Ft. E/W Dir:	E	Elevation:	3543 GL	
	E 0 Not Reported	Elevation: Compdate: Datasource:	3543 GL Not Reported Ongard	

irection istance			Database	EDR ID Num
Statice			Dalabase	_EDR ID Null
SE 2 - 1 Mile			OIL_GAS	NMOG048275
Api ID:	3002506049	Pool ID:	47080	
Pool Name: MONUMENT;F		Well ID:	009	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	<b>TEXACO EXPLORATION &amp; PR</b>	ODUCTION INC		
Latitude:	32.58453			
Longitude:	-103.26139	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	L	Ft. N/S Dist:	1650	
Ft. N/S dir:	S	Ft. E/W Dist:	990	
Ft. E/W Dir:	W	Elevation:	3540 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
	<u>'</u>			
SE /2 - 1 Mile			OIL_GAS	NMOG069707
A = 1 ID.	2002522000	D L ID :	47000	
Api ID:	3002532896	Pool ID:	47080	
Pool Name: MONUMENT;P		Well ID:	017	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PR	ODUCTION INC		
Latitude:	32.58453	o .::	•	
Longitude:	-103.25925	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	K	Ft. N/S Dist:	1650	
Ft. N/S dir:	S	Ft. E/W Dist:	1650	
Ft. E/W Dir:	W	Elevation:	3540 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
VSW /2 - 1 Mile			OIL_GAS	NMOG048160
			_	
Api ID:	3002505976	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDF		006	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP			
Latitude:	32.58445		_	
	-103.28493	Section:	7	
Longitude:		Range:	37E	
Longitude: Township:	20.0\$	-		
Longitude: Township: Unit ID:	1	Ft. N/S Dist:	1650	
Longitude: Township: Unit ID: Ft. N/S dir:	I S	Ft. N/S Dist: Ft. E/W Dist:	990	
Longitude: Township: Unit ID: Ft. N/S dir: Ft. E/W Dir:	I S E	Ft. N/S Dist: Ft. E/W Dist: Elevation:	990 3557 GL	
Longitude: Township: Unit ID: Ft. N/S dir:	I S	Ft. N/S Dist: Ft. E/W Dist:	990	

Direction Distance			Database	EDR_ID_Numb
istance			Database	EDK_ID NUIII
'SW				
2 - 1 Mile			OIL_GAS	NMOG048211
Api ID:	3002505995	Pool ID:	23000	
	MONUMENT;GRAYBURG-SAN ANI		007	
Well Name:	BRITT	County ID:	25	
County Name:	Lea	Operator ID:	15043	
Op. Name:	MKA OIL PROPERTIES			
Latitude:	32.58442	_		
Longitude:	-103.28708	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	J	Ft. N/S Dist:	1650	
Ft. N/S dir:	S	Ft. E/W Dist:	1650	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	1995-07-21	Datasource:	Ongard	
E /2 - 1 Mile			OIL_GAS	NMOG070059
Api ID:	3002533236	Pool ID:	63780	
Pool Name: WEIR;BLI	NEBRY	Well ID:	010	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.58272			
Longitude:	-103.26627	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	₽	Ft. N/S Dist:	990	
Ft. N/S dir:	S	Ft. E/W Dist:	515	
Ft. E/W Dir:	E	Elevation:	3534 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				<u></u>
SE 2 - 1 Mile			OIL_GAS	NMOG069226
Api ID:	3002532518	Pool ID:	96764	
	ENT;ABO, SOUTHEAST	Well ID:	014	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & P			
Latitude:	32.58272			
	-103.26138	Section:	9	
Longitude:	20.0\$	Range:	37E	
Longitude: Township:		-	990	
	M	Ft. N/S Dist:	330	
Township:	M S	Ft. N/S Dist: Ft. E/W Dist:	990	
Township: Unit ID:				
Township: Unit ID: Ft. N/S dir:	S	Ft. E/W Dist:	990	

Direction Distance			Database	EDR ID Numl
SE 2 - 1 Mile			OIL_GAS	NMOG069272
Api ID:	3002532518	Pool ID:	63780	
Pool Name: WEIR;BLINEB	IRY	Well ID:	014	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PRO	ODUCTION INC		
Latitude:	32.58272			
Longitude:	-103.26138	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	990	
Ft. N/S dir:	S	Ft. E/W Dist:	990	
Ft. E/W Dir:	W	Elevation:	3534 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE 2 - 1 Mile			OIL GAS	NMOG069213
z - i wine			OIL_GAG	14/11/00/03213
Api ID:	3002532518	Pool ID:	47090	
Pool Name: MONUMENT;		Well ID:	014	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PRO	ODUCTION INC		
Latitude:	32.58272			
Longitude:	-103.26138	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	990	
Ft. N/S dir:	S	Ft. E/W Dist:	990	
Ft. E/W Dir:	W	Elevation:	3534 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
W 2 - 1 Mile			OIL_GAS	NMOG048175
			OIL_OAG	111100040113
Api ID:	3002506033	Pool ID:	47080	
Pool Name: MONUMENT;		Well ID:	001	
Well Name:	GILLULLY FEDERAL	County ID:	25	
County Name:	Lea	Operator ID:	999618	
Op. Name:	RODMAN PETROLEUM CORP			
Latitude:	32.58269			
Longitude:	-103.2796	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	990	
	S	Ft. E/W Dist:	660	
Ft. N/S dir:				
Ft. E/W Dir:	W	Elevation:	Not Reported	

Direction Distance			Database	EDR ID Num
VSW /2 - 1 Mile			OIL_GAS	NMOG048305
Api ID:	3002505983	Pool ID:	76480	
Pool Name: EUMONT;YAT	ES-7 RVRS-QUEEN (PRO GAS)	Well ID:	002	
Well Name:	BARBER GAS COM	County ID:	25	
County Name:	Lea	Operator ID:	990	
Op. Name:	ARCO PERMIAN			
Latitude:	32.58266			
Longitude:	-103.28389	Section:	7	
Township:	20.0\$	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	990	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	3545 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
VSW /2 - 1 Mile			OIL_GAS	NMOG048327
Api ID:	3002505983	Pool ID:	47080	
Pool Name: MONUMENT;F		Well ID:	002	
Well Name:	BARBER GAS COM	County ID:	25	
County Name:	Lea	Operator ID:	990	
Op. Name:	ARCO PERMIAN			
Latitude:	32.58266			
Longitude:	-103.28389	Section:	7	
Township:	20.08	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	990	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	3545 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE				
/2 - 1 Mile			OIL_GAS	NMOG069706
Api ID:	3002532880	Pool ID:	63780	
Pool Name: WEIR;BLINEB		Well ID:	015	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PRO	DDUCTION INC		
Latitude:	32.5822	4		
Longitude:	-103.25842	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	800	
Ft. N/S dir:	S	Ft. E/W Dist:	1900	
rt. 19/5 uii.				
Ft. E/W Dir:	W	Elevation:	3535 GL	
	W 0	Elevation: Compdate:	3535 GL Not Reported	

Direction				
Distance			Database	EDR ID Number
SE 1/2 - 1 Mile			OIL_GAS	NMOG048353
Api ID:	3002506010	Pool ID:	23000	
Pool Name: EUNICE MON	UMENT;GRAYBURG-SAN ANDR	E%S/elf ID:	003	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.58181			
Longitude:	-103.26673	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	3548 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	1994-04-29	Datasource:	Ongard	
SE 1/2 - 1 Mile			OIL_GAS	NMOG048294
Api ID:	3002506042	Pool ID:	76480	
•	ES-7 RVRS-QUEEN (PRO GAS)		002	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PRO			
Latitude:	32.58181			
Longitude:	-103.26244	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. EW Dir:	w	Elevation:	3537 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE 1/2 - 1 Mile			OIL_GAS	NMOG118700
			_	
Api ID:	3052505826	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDRI		002	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58181			
Longitude:	-103.26244	Section:	9	
Township:	20.0S	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	

Discolina				
Direction Distance			Database	EDR ID Numb
·o.c				
SE /2 - 1 Mile			OIL_GAS	NMOG048319
Api ID:	3002506043	Pool ID:	47080	
Pool Name: MONUM	ENT;PADDOCK	Well ID:	003	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	22351	
Op. Name:	TEXACO EXPLORATION & PR	ODUCTION INC		
Latitude:	32.58181			
Longitude:	-103.25816	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft, E/W Dir:	W	Elevation:	3548 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
	·			
:SE				
/2 - 1 Mile			OIL_GAS	NMOG118800
Api ID:	3052505827	Pool ID:	23000	
	MONUMENT;GRAYBURG-SAN ANDF	REWell ID:	003	
Well Name:	L VAN ETTEN	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	- po. a.to. 72.	-	
Latitude:	32.58181			
Longitude:	-103.25816	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	N	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	w	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
SE /4 - 1/2 Mile			OIL_GAS	NMOG048272
Api ID:	3002506009	Pool ID:	76480	
•	;YATES-7 RVRS-QUEEN (PRO GAS)		001	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC	V		
Latitude:	32.5818			
Longitude:	-103.27101	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	0	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft, E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	3547 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
5		Databourob.	Ungala	

Direction				
Direction Distance			Database	EDR ID Number
SSE 1/4 - 1/2 Mile			OIL_GAS	NMOG118899
Api ID:	3052505814	Pool ID:	23000	
Pool Name: EUNICE MON	UMENT;GRAYBURG-SAN ANDR		001	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.5818			
Longitude:	-103.27101	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	0	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
sw				<del></del>
1/2 - 1 Mile			OIL_GAS	NMOG118699
Api ID:	3052505812	Pool ID:	47080	
Pool Name: MONUMENT;F	PADDOCK	Well ID:	001	
Well Name:	GILLULLY FEDERAL	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.58179			
Longitude:	-103.27961	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	М	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
			· · · · · · · · · · · · · · · · · · ·	
SW 1/2 - 1 Mile			OIL_GAS	NMOG048161
Api ID:	3002506019	Pool ID:	23000	
	UMENT:GRAYBURG-SAN ANDRI		001	
Well Name:	GILLULLY A FEDERAL	County ID:	25	
County Name:	Lea	Operator ID:	12024	
Op. Name:	JOHN H HENDRIX CORP	•		
Latitude:	32.58179			
Longitude:	-103.27961	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	660	
Ft. N/S dir:	S	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	3555 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	

Api ID: 3052505813 Pool ID: 2300 Pool Name: EUNICE MONUMENT,GRAYBURG-SAN ANDRES (II ID: 002 Well Name: TANDERSON County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58179 Longitude: -103.27533 Section: 8 Township: 20.0S Range: 37E Unit ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: Not Reported Datasource: Preo  SW 4 - 1/2 Mile  Api ID: 3002506002 Pool ID: 7648 Pool Name: EUMONT,YATES-7 RVRS-QUEEN (PRO GAS) Well Name: T ANDERSON County ID: 25 County Name: Lea Operator ID: 495 Operator ID: 495 Operator ID: 495 Operator ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: 3540 Depth: O Compdate: Not Fe Plugdate: Not Reported Datasource: Ongs  SW 2 - 1 Mile  Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT,GRAYBURG-SAN ANDRE® II ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Pool Name: Not Reported  Api ID: 25 County Name: Lea Operator ID: 0 Datasource: Not Reported  Api ID: 25 County Name: Lea Operator ID: 0 District Invited: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E	Database	EDR ID Num
Pool Name: EUNICE MONUMENT;GRAYBURG-SAN ANDRE®ell ID:		
Api ID: 3052505813 Pool ID: 2300 Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDREWell ID: 002 Well Name: T ANDERSON County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58179 Longitude: -103.27533 Section: 8 Township: 20.0S Range: 37E Unit ID: N Ft. N/S Dist: 660 Ft. LAW Dir: W Elevation: Not Ft. N/S Dist: 1980 Ft. LAW Dir: W Elevation: Not Ft.	OIL_GAS	NMOG118898
Pool Name: EUNICE MONUMENT;GRAYBURG-SAN ANDRE®ell ID:	OIL_OAG	1411100110030
Well Name:		
County Name:		
Op. Name:         Not Reported           Latitude:         32.58179           Longitude:         -103.27533         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         N         Ft. N/S Dist:         660           Ft. N/S dir:         S         Ft. EW Dist:         1980           Ft. EW Dir:         W         Elevation:         Not Ft           Depth:         0         Compdate:         Not Ft           Plugdate:         Not Reported         Datasource:         Preo           SW           44 - 1/2 Mile         Api ID:         002           Api ID:         3002506002         Pool ID:         7648           Pool Name: EUMONT;YATES-7 RVRS-QUEEN (PRO GAS)         Well ID:         002           Well Name:         T ANDERSON         County ID:         25           County Name:         Lea         Operator ID:         495           Op. Name:         AMERADA HESS CORP         Latitude:         32.58179           Longitude:         -103.27533         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         N		
Latitude: 32.58179 Longitude: -103.27533 Section: 8 Township: 20.0S Range: 37E Unit ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: Not F Depth: 0 Compdate: Not F Plugdate: Not Reported Datasource: Preo  SW  /4 - 1/2 Mitle  Api ID: 3002506002 Pool ID: 7648 Pool Name: EUMONT;YATES-7 RVRS-QUEEN (PRO GAS) Well ID: 002 Well Name: T ANDERSON County ID: 25 County Name: Lea Operator ID: 495 Op. Name: AMERADA HESS CORP Latitude: 32.58179 Longitude: -103.27533 Section: 8 Township: 20.0S Range: 37E Unit ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: 3540 Pool Name: EUNICE MONUMENT;GRAYBURG-SAN ANDREWell ID: 005  /SW /2 - 1 Mile  Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT;GRAYBURG-SAN ANDREWell ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E		
Longitude:		
Township:   20.0S   Range:   37E		
Unit ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: Not Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: Not Ft. N/S Dist: 660  SW    A - 1/2 Mile		
Ft. E/W Dir:		
Ft. E/W Dir:	l	
Depth:	0	
Plugdate:   Not Reported   Datasource:   Preo	Reported	
SW   A - 1/2 Mile   Api ID:   3002506002   Pool ID:   7648   Pool Name: EUMONT;YATES-7 RVRS-QUEEN (PRO GAS)   Well ID:   002   Well Name:   T ANDERSON   County ID:   25   County Name:   Lea   Operator ID:   495   Op. Name:   AMERADA HESS CORP   Latitude:   32.58179   Longitude:   -103.27533   Section:   8   Range:   37E   County ID:   N   Ft. N/S Dist:   660   Ft. N/S dir:   S   Ft. E/W Dist:   1980   Ft. E/W Dist:   1980   Ft. E/W Dist:   1980   Pt. E/W Dist:   1980   Pt. E/W Dist:   Not Reported   Datasource:   Ongs   Pt. Graph   Pt. Gr	Reported	
Api ID: 3002506002 Pool ID: 7648 Pool Name: EUMONT;YATES-7 RVRS-QUEEN (PRO GAS) Well ID: 002 Well Name: T ANDERSON County ID: 25 County Name: Lea Operator ID: 495 Op. Name: AMERADA HESS CORP Latitude: 32.58179 Longitude: -103.27533 Section: 8 Township: 20.0S Range: 37E Unit ID: N Ft. N/S Dist: 660 Pt. N/S dir: S Pt. E/W Dist: 1980 Ft. E/W Dir: W Elevation: 3540 Depth: 0 Compdate: Not Reported Datasource: Ongs  //SW /2 - 1 Mile  Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDRES/ell ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Unit ID: P Ft. N/S Dist: 660	ongard	
Api ID: 3002506002 Pool ID: 7648 Pool Name: EUMONT;YATES-7 RVRS-QUEEN (PRO GAS) Well ID: 002 Well Name: T ANDERSON County ID: 25 County Name: Lea Operator ID: 495 Op. Name: AMERADA HESS CORP Latitude: 32.58179 Longitude: -103.27533 Section: 8 Township: 20.0S Range: 37E Unit ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: 3540 Depth: 0 Compdate: Not Reported Datasource: Ongs  /SW 2 - 1 Mile  Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT;GRAYBURG-SAN ANDRES/ell ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Unit ID: P Ft. N/S Dist: 660		<u></u>
Pool Name: EUMONT;YATES-7 RVRS-QUEEN (PRO GAS)   Well ID:	OIL_GAS	NMOG048235
Well Name:         T ANDERSON         County ID:         25           County Name:         Lea         Operator ID:         495           Op. Name:         AMERADA HESS CORP         495           Latitude:         32.58179         32.58179           Longitude:         -103.27533         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         N         Ft. N/S Dist:         660           Ft. N/S dir:         S         Ft. E/W Dist:         1980           Ft. E/W Dir:         W         Elevation:         3540           Depth:         0         Compdate:         Not F           Plugdate:         Not Reported         Datasource:         Onga           VSW         2-1 Mile         Api ID:         2300           Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDRE® ell ID:         005           Well Name:         BERTHA J BARBER         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Api ID:         25           Longitude:         -103.2839         Section:         7           Township:         20.0S	80	
Well Name:         T ANDERSON         County ID:         25           County Name:         Lea         Operator ID:         495           Op. Name:         AMERADA HESS CORP         495           Latitude:         32.58179         32.58179           Longitude:         -103.27533         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         N         Ft. N/S Dist:         660           Ft. N/S dir:         S         Ft. E/W Dist:         1980           Ft. E/W Dir:         W         Elevation:         3540           Depth:         0         Compdate:         Not F           Plugdate:         Not Reported         Datasource:         Onga           /SW         10:         2300           YSW	:	
Op. Name:         AMERADA HESS CORP           Latitude:         32.58179           Longitude:         -103.27533         Section:         8           Township:         20.0S         Range:         37E           Unit ID:         N         Ft. N/S Dist:         660           Ft. N/S dir:         S         Ft. E/W Dist:         1980           Ft. E/W Dir:         W         Elevation:         3540           Depth:         0         Compdate:         Not           Plugdate:         Not Reported         Datasource:         Onga           ISW         2 - 1 Mile         Api ID:         3052505795         Pool ID:         2300           Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDRES (II ID:         005         005         005           Well Name:         BERTHA J BARBER         County ID:         25         000           County Name:         Lea         Operator ID:         0         0           Op. Name:         Not Reported         Latitude:         32.58175         1         1           Longitude:         -103.2839         Section:         7         7         7           Township:         20.0S         Range:         37E         1 <td></td> <td></td>		
Latitude: 32.58179 Longitude: -103.27533 Section: 8 Township: 20.0S Range: 37E Unit ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: 3540 Depth: 0 Compdate: Not Flugdate: Not Reported Datasource: Onga  //SW //2 - 1 Mile  Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDRE®ell ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Unit ID: P Ft. N/S Dist: 660	i	
Longitude:		
Township:   20.0S   Range:   37E		
Township: 20.0S Range: 37E Unit ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: 3540 Depth: 0 Compdate: Not F Plugdate: Not Reported Datasource: Onga  //SW /2 - 1 Mile  Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDRE®ell ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Unit ID: P Ft. N/S Dist: 660		
Unit ID: N Ft. N/S Dist: 660 Ft. N/S dir: S Ft. E/W Dist: 1980 Ft. E/W Dir: W Elevation: 3540 Depth: 0 Compdate: Not Flugdate: Not Flugdate: Not Reported Datasource: Onga  //SW 2 - 1 Mile  Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDRE®ell ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Unit ID: P Ft. N/S Dist: 660	:	
Ft. E/W Dir:         W         Elevation:         3540           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Onga           /SW           /2 - 1 Mile         Api ID:         3052505795         Pool ID:         2300           Pool Name:         EUNICE MONUMENT;GRAYBURG-SAN ANDRE®/ell ID:         005         005           Well Name:         BERTHA J BARBER         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Description:         7           Latitude:         32.58175         37E           Longitude:         -103.2839         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         P         Ft. N/S Dist:         660	Į	
Ft. E/W Dir:         W         Elevation:         3540           Depth:         0         Compdate:         Not Reported           Plugdate:         Not Reported         Datasource:         Onga           /SW           /2 - 1 Mile         Api ID:         3052505795         Pool ID:         2300           Pool Name:         EUNICE MONUMENT;GRAYBURG-SAN ANDRE®/ell ID:         005           Well Name:         BERTHA J BARBER         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         Latitude:         32.58175           Longitude:         -103.2839         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         P         Ft. N/S Dist:         660		
Depth:   0   Compdate:   Not Reported   Datasource:   Ongase		
Not Reported   Datasource: Ongain	Reported	
Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT;GRAYBURG-SAN ANDRE® ell ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Unit ID: P Ft. N/S Dist: 660		
Api ID: 3052505795 Pool ID: 2300 Pool Name: EUNICE MONUMENT;GRAYBURG-SAN ANDRE® ell ID: 005 Well Name: BERTHA J BARBER County ID: 25 County Name: Lea Operator ID: 0 Op. Name: Not Reported Latitude: 32.58175 Longitude: -103.2839 Section: 7 Township: 20.0S Range: 37E Unit ID: P Ft. N/S Dist: 660		
Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDREWell ID:         005           Well Name:         BERTHA J BARBER         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported	OIL_GAS	NMOG118812
Pool Name: EUNICE MONUMENT; GRAYBURG-SAN ANDREWell ID:         005           Well Name:         BERTHA J BARBER         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported	00	
Well Name:         BERTHA J BARBER         County ID:         25           County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         1           Latitude:         32.58175         5           Longitude:         -103.2839         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         P         Ft. N/S Dist:         660		
County Name:         Lea         Operator ID:         0           Op. Name:         Not Reported         1           Latitude:         32.58175         32.58175           Longitude:         -103.2839         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         P         Ft. N/S Dist:         660		
Op. Name:         Not Reported           Latitude:         32.58175           Longitude:         -103.2839         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         P         Ft. N/S Dist:         660		
Latitude:       32.58175         Longitude:       -103.2839       Section:       7         Township:       20.0S       Range:       37E         Unit ID:       P       Ft. N/S Dist:       660		
Longitude:         -103.2839         Section:         7           Township:         20.0S         Range:         37E           Unit ID:         P         Ft. N/S Dist:         660		
Township:         20.0S         Range:         37E           Unit ID:         P         Ft. N/S Dist:         660		
Unit ID: P Ft. N/S Dist: 660	:	
Ft. N/S dir: S Ft. E/W Dist: 660		
	Reported	
	Reported	
· · · · · · · · · · · · · · · · · · ·	ngard	

Direction				
istance		<del></del>	Database	EDR ID Numb
E				
2 - 1 Mile			OIL_GAS	NMOG071041
Api ID:	3002534021	Pool ID:	96764	
Pool Name: MONUMENT; A	ABO, SOUTHEAST	Well ID:	012	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.58174			
Longitude:	-103.26663	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	634	
Ft. N/S dir:	S	Ft. E/W Dist:	631	
Ft. E/W Dir:	E	Elevation:	3533 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE 4 - 1/2 Mile			OIL_GAS	NMOG066377
Api ID:	3002529962	Pool ID:	47080	
Pool Name: MONUMENT;F	PADDOCK	Well ID:	001	
Well Name:	ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	150065	
Op. Name:	MID-CONTINENT ENERGY O	PERATING COMPANY		
Latitude:	32.58089			
Longitude:	-103.271	Section:	8	
Township:	20.0\$	Range:	37E	
Unit ID:	0	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	3538 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				<del></del>
SE 1 - 1/2 Mile			OIL_GAS	NMOG066472
Api ID:	3002529962	Pool ID:	46990	
Pool Name: MONUMENT;B	BLINEBRY	Well ID:	001	
Well Name:	ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	150065	
-	MID-CONTINENT ENERGY O	PERATING COMPANY		
Op. Name:				
Op. Name: Latitude:	32.58089			
Op. Name: Latitude: Longitude:	-103.271	Section:	8	
Op. Name: Latitude:	-103.271 20.0S	Section: Range:	8 37E	
Op. Name: Latitude: Longitude:	-103.271 20.0S O			
Op. Name: Latitude: Longitude: Township:	-103.271 20.0S O S	Range:	37E	
Op. Name: Latitude: Longitude: Township: Unit ID:	-103.271 20.0S O	Range: Ft. N/S Dist:	37E 330	
Op. Name: Latitude: Longitude: Township: Unit ID: Ft. N/S dir:	-103.271 20.0S O S	Range: Ft. N/S Dist: Ft. E/W Dist:	37E 330 1980	

Direction Distance	<del></del>		Database	EDR ID Num
SE				
/4 - 1/2 Mile			OIL_GAS	NMOG066533
Api ID:	3002529962	Pool ID:	47090	
Pool Name: MONUMENT;T		Well ID:	001	
Well Name:	ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	150065	
Op. Name:	MID-CONTINENT ENERGY OPE	ERATING COMPANY		
Latitude:	32.58089			
Longitude:	-103.271	Section:	8	
Township:	20.0S	Range:	37E	
Unit ID:	0	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	3538 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
W /2 - 1 Mile			OIL_GAS	NMOG048290
Api ID:	3002505975	Pool ID:	23000	
Pool Name: EUNICE MONU	JMENT;GRAYBURG-SAN ANDRI	EWell ID:	005	
Well Name:	BERTHA J BARBER	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	•		
Latitude:	32.58086			
Longitude:	-103,28284	Section:	7	
Township:	20.0S	Range:	37E	
Unit ID:	P	Ft. N/S Dist:	330	
Ft. N/S dir:	S	Ft. E/W Dist:	330	
Ft. E/W Dir:	Ē	Elevation:	3554 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
E /2 - 1 Mile			OIL_GAS	NMOG056170
Api ID:	3002512801	Bool ID:	Not Donorted	
Pool Name: Not Reported	0002012001	Pool ID: Well ID:	Not Reported 009	
Well Name:	E M E SWD			
	Lea	County ID:	25	
County Name: Op. Name:	RICE OPERATING CO	Operator ID:	19174	
Latitude:	32.58027			
		Continu	0	
Longitude:	-103.26376	Section:	9	
Township:	20.0\$	Range:	37E	
Unit ID:	M	Ft. N/S Dist:	100	
	S	Ft. E/W Dist:	250	
	W	Elevation;	3522 GL	
Depth:	0 Not Reported	Compdate: Datasource:	Not Reported Ongard	

Direction				
Distance			Database	EDR ID Num
_				
E /2 - 1 Mile			OIL_GAS	NMOG065396
Api ID:	3002528818	Pool ID:	76480	
	TES-7 RVRS-QUEEN (PRO GAS)		002	
Well Name:	GENERAL G STATE	County ID:	25	
County Name:	Lea	Operator ID:	150628	
Op. Name:	PURE RESOURCES, LP			
Latitude:	32.57909			
Longitude:	-103.26308	Section:	16	
Township:	20.0S	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	330	
Ft. N/S dir:	N	Ft. E/W Dist:	450	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
w				
/2 - 1 Mile			OIL_GAS	NMOG048413
Api ID:	3002506137	Pool ID:	23000	
	IUMENT;GRAYBURG-SAN ANDR		002	
Well Name:	STATE H 17	County ID:	25	
County Name:	Lea	Operator ID:	127535	
Op. Name:	OIL & GAS OPERATIONS			
Latitude:	32.57906			
Longitude:	-103.28071	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	330	
Ft. N/S dir:	N	Ft. E/W Dist:	330	
Ft. E/W Dir:	W	Elevation:	3515 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
W  2 - 1 Mile			OIL_GAS	NMOG048533
			_	1111100010000
Api ID:	3002506163	Pool ID:	23000	
	IUMENT;GRAYBURG-SAN ANDR		001	
Well Name:	MEXICO	County ID:	25	
County Name:	Lea	Operator ID:	12024	
Op. Name:	JOHN H HENDRIX CORP			
Latitude:	32.57904			
Longitude:	-103.28285	Section:	18	
	20.0S	Range:	37E	
Township:		-		
Township: Unit ID:	Α	Ft. N/S Dist:	330	
Township: Unit ID: Ft. N/S dir:	A N	Ft. E/W Dist:	330	
Township: Unit ID: Ft. N/S dir: Ft. E/W Dir:	A N E	Ft. E/W Dist: Elevation:	330 Not Reported	
Township: Unit ID: Ft. N/S dir:	A N	Ft. E/W Dist:	330	

irection istance			Database	EDR ID Num
SE 2 - 1 Mile			OIL_GAS	NMOG071273
Api ID:	3002534281	Pool ID:	96764	
Pool Name: MONUMEI	NT;ABO, SOUTHEAST	Well ID:	014	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON USAINC			
Latitude:	32.57818			
Longitude:	-103.26715	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID.	Α	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	810	
Ft. E/W Dir:	E	Elevation:	3534 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
SE /2 - 1 Mile			OIL_GAS	NMOG048373
			•	
Api ID:	3002506142	Pool ID:	23000	
Pool Name: EUNICE M	IONUMENT;GRAYBURG-SAN ANI		006	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON USAINC			
Latitude:	32.57818			
Longitude:	-103.26666	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	Α	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	Ε	Elevation:	3542 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	1994-04-28	Datasource:	Ongard	
E /2 - 1 Mile			OIL_GAS	NMOG118946
Api ID:	3052505902	Pool ID:	22800	
•	YATES-7 RVRS-QUEEN (OIL)	Well ID:	001	
Well Name:	GENERAL G STATE	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	•		
Latitude:	32.57818			
Longitude:	-103.26237	Section:	16	
	20.0S	Range:	37E	
Township:	D	Ft. N/S Dist:	660	
-	0			
Township:	N	Ft. E/W Dist:	660	
Township: Unit ID:		Ft. E/W Dist: Elevation:	660 Not Reported	
Township: Unit ID: Ft. N/S dir:	N			

Direction				
Distance			Database	EDR ID Number
SE 1/2 - 1 Mile			OIL_GAS	NMOG048359
Api ID:	3002506123	Pool ID:	22800	
Pool Name: EUMONT;YAT		Well ID:	001	
Well Name:	GENERAL G STATE	County ID:	25	
County Name:	Lea	Operator ID:	15144	
Op. Name:	MOBIL PRODUCING TEXAS & N	NEW MEXICO		
Latitude:	32.57818			
Longitude:	-103.26237	Section:	16	
Township:	20.0S	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Hobbs	
SE 1/2 - 1 Mile			OIL_GAS	NMOG119016
Api ID:	3052505901	Pool ID:	23000	
•	JMENT;GRAYBURG-SAN ANDRE		001	
Well Name:	GENERAL G STATE	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported	Operator ID.	O	
Latitude:	32.57818			
Longitude:	-103.26237	Section:	16	
Township:	20.0S		37E	
Unit ID:	D D	Range: Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:		
Depth:	0		Not Reported	
Plugdate:	Not Reported	Compdate: Datasource:	Not Reported Preongard	
SE 1/2 - 1 Mile			OIL_GAS	NMOG048451
Api ID:	3002506123	Pool ID:	23000	
	JMENT;GRAYBURG-SAN ANDRE		001	
Well Name:	GENERAL G STATE	County ID:	25	
County Name:	Lea	Operator ID:	15144	
Op. Name:	MOBIL PRODUCING TEXAS & N	•		
Latitude:	32.57818			
Longitude:	-103.26237	Section:	16	
Township:	20.0\$	Range:	37E	
Unit ID:	D	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Hobbs	
_	-			

irection istance			Database	EDR ID Num
SW 2 - 1 Mile			OIL_GAS	NMOG048473
Api ID:	3002506139	Pool ID:	23000	
	NUMENT;GRAYBURG-SAN ANDR		002	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.57817			
Longitude:	-103.27535	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	С	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	3544 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	1994-04-26	Datasource:	Ongard	
outh /2 - 1 Mile			OIL_GAS	NMOG048427
Api ID:	3002506140	Pool ID:	76480	
Pool Name: EUMONT;YA	TES-7 RVRS-QUEEN (PRO GAS)	Well ID:	004	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON USAINC	•		
Latitude:	32.57817			
Longitude:	-103.27095	Section:	17	
Township:	20.0\$	Range:	37E	
Unit ID:	В	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	E	Elevation:	3545 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
				<del></del>
outh /2 - 1 Mile			OIL_GAS	NMOG118865
Api ID:	3052505917	Pool ID:	23000	
Pool Name: EUNICE MON	IUMENT;GRAYBURG-SAN ANDRI	E%S/ellID:	004	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.57817			
Longitude:	-103.27095	Section:	17	
Township:	20.0\$	Range:	37E	
Unit ID:	В	Ft. N/S Dist:	660	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	•
Ft. E/W Dir:	E	Elevation:	Not Reported	
	E 0	Elevation: Compdate:	Not Reported Not Reported	

virection vistance		<u> </u>	Database	EDR ID Num
sw				
/2 - 1 Mile			OIL_GAS	NMOG056246
Api ID:	3002520100	Pool ID:	23000	
	UMENT;GRAYBURG-SAN ANDR	E%Fell ID:	001	
Well Name:	STATE H 17	County ID:	25	
County Name:	Lea	Operator ID:	127535	
Op. Name:	OIL & GAS OPERATIONS			
Latitude:	32.57544			
Longitude:	-103.28071	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft, E/W Dist:	330	
Ft. E/W Dir:	W	Elevation:	3545 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
South /2 - 1 Mile			OIL_GAS	NMOG058880
Api ID:	3002522600	Pool ID:	23000	
Pool Name: EUNICE MON	UMENT;GRAYBURG-SAN ANDR	E%/ell ID:	009	
Well Name:	ANDERSON A	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	·		
Latitude:	32.57544			
Longitude:	-103.27535	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1650	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
outh /2 - 1 Mile			OIL_GAS	NMOG048457
Api ID:	3002506144	Pool ID:	23000	
Pool Name: EUNICE MON	UMENT;GRAYBURG-SAN ANDR	E%S/ell ID:	008	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON USAINC			
Latitude:	32.57455			
Longitude:	-103.27085	Section:	17	
Township:	20.0S	Range:	37E	
· • · · · · · · · · · · · · · · · · · ·	G	Ft. N/S Dist:	1980	
Unit ID:				
•	N	Ft. E/W Dist:	1980	
Unit ID:		Ft. E/W Dist: Elevation:	1980 3543 GL	
Unit ID: Ft. N/S dir:	N			

istance			Database	EDR ID Num
.=				
SE /2 - 1 Mile			OIL_GAS	NMOG118921
Api ID:	3052505920	Pool ID:	23000	
	ONUMENT;GRAYBURG-SAN ANDR	E%Fell ID:	007	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.57455			
Longitude:	-103.26656	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
SE /2 - 1 Mile			OIL_GAS	NMOG048496
Api ID:	3002506143	Pool ID:	76480	
•	ATES-7 RVRS-QUEEN (PRO GAS)		007	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.57455			
Longitude:	-103.26656	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	Н	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	E	Elevation:	3544 GL	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Ongard	
outh				
2 - 1 Mile			OIL_GAS	NMOG048474
Api ID:	3002506141	Pool ID:	23000	
	DNUMENT;GRAYBURG-SAN ANDRI		005	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	9515	
Op. Name:	GULF OIL CORP			
Latitude:	32.57454	•		
Longitude:	-103.27535	Section:	17	
Township:	20.08	Range:	37E	
11.20.10	F	Ft. N/S Dist:	1980	
Unit ID:			1980	
Ft. N/S dir:	N	Ft. E/W Dist:		
Ft. N/S dir: Ft. E/W Dir:	W	Elevation:	Not Reported	
Ft. N/S dir:				

Direction Distance			Database	EDR ID Nur
South 1/2 - 1 Mile			OIL_GAS	NMOG118848
Api ID:	3052505919	Pool ID:	47020	
	ENT (G-SA)(CONSOLIDATED)**	Well ID:	005	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.57454			
Longitude:	-103.27535	Section:	17	
Township:	<u>2</u> 0.0\$	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
South				
/2 - 1 Mile			OIL_GAS	NMOG118908
Api ID:	3052505919	Pool ID:	23000	
Pool Name: EUNICE	MONUMENT; GRAYBURG-SAN ANDF	REMS/ell ID:	005	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.57454			
Longitude:	-103.27535	Section:	17	
Township:	20.0\$	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	1980	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
outh /2 - 1 Mile			OII CAS	NMOG070639
72 - 1 Wille			OIL_GAS	MMOGU70039
Api ID:	3002533891	Pool ID:	76480	
	T;YATES-7 RVRS-QUEEN (PRO GAS)		011	
Well Name:	THEODORE ANDERSON	County ID:	25	
County Name:	Lea	Operator ID:	4323	
Op. Name:	CHEVRON U S A INC			
Latitude:	32.57454	0 4:	47	
Longitude:	-103.27428	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	2310	
	W	Elevation:	3533 GL	
Ft. E/W Dir:				
Ft. E/W Dir: Depth: Plugdate:	0 Not Reported	Compdate: Datasource:	Not Reported Ongard	

stance			Database	EDR ID Nur
SW /2 - 1 Mile			OIL_GAS	NMOG118907
Api ID:	3052505918	Pool ID:	23000	
Pool Name: EUNICE MON	NUMENT;GRAYBURG-SAN AND	REWell ID:	002	
Well Name:	WULFF STATE	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.57453			
Longitude:	-103.27964	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
SSW /2 - 1 Mile			OIL_GAS	NMOG118948
Api ID:	3052505918	Pool ID:	47020	
Pool Name: MONUMENT	(G-SA)(CONSOLIDATED)**	Well ID:	002	
Well Name:	WULFF STATE	County ID:	25	
County Name:	Lea	Operator ID:	0	
Op. Name:	Not Reported			
Latitude:	32.57453			
Longitude:	-103.27964	Section:	17	
Township:	20.0S	Range:	37E	
Unit ID:	E	Ft. N/S Dist:	1980	
Ft. N/S dir:	N	Ft. E/W Dist:	660	
Ft. E/W Dir:	W	Elevation:	Not Reported	
Depth:	0	Compdate:	Not Reported	
Plugdate:	Not Reported	Datasource:	Preongard	
				<del>_</del>
outh /2 - 1 Mile			OIL_GAS	NMOG062380
Api ID:	3002525928	Pool ID:	23000	
	NUMENT;GRAYBURG-SAN AND		009	
Well Name:	ANDERSON A	County ID:	25	
County Name:	Lea	Operator ID:	495	
Op. Name:	AMERADA HESS CORP	•		
Latitude:	32.57363			
Longitude:	-103.27428	Section:	17	
Township:	20.0\$	Range:	37E	
Unit ID:	F	Ft. N/S Dist:	2310	
Ft. N/S dir:	N	Ft. E/W Dist:	2310	
Ft. E/W Dir:	W	Elevation:	Not Reported	
, t, TT Dii.				
Depth:	0	Compdate:	Not Reported	

#### AREA RADON INFORMATION

Federal EPA Radon Zone for LEA County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LEA COUNTY, NM

Number of sites tested: 48

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor Living Area - 2nd Floor	1.585 pCi/L Not Reported	94% Not Reported	6% Not Reported	0% Not Reported
Basement	1.900 pCi/L	100%	0%	0%

#### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### TOPOGRAPHIC INFORMATION

#### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS

1:24,000- and 1:25,000-scale topographic quadrangle maps.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

#### HYDROGEOLOGIC INFORMATION

#### AQUIFLOWR Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

#### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

#### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

#### ADDITIONAL ENVIRONMENTAL RECORD SOURCES

#### **FEDERAL WATER WELLS**

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### STATE RECORDS

#### Oil and Gas Well Locations

Source: New Mexico Institute of Mining and Technology

Telephone: 505-835-5142

#### **RADON**

State Database: NM Radon

Source: Environment Department Telephone: 505-827-1093 Radon Test Results

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### **EPA Radon Zones**

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels

#### OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

### **APPENDIX F**

# LABORATORY REPORTS WITH CHAIN-OF-CUSTODY FORMS

			JAIMAK	JAIMAK WATEK SAMPLES	MPLES					
			(Lab	Laboratory Results	ılts)					
Completion	Ph	Тетр	>	BTEX (mg/L)	H	Ĺ	>	Naph	Chloride	LDS
5/27/2004 MW-1 3.03	7.05	20.97	28.00	<b>5</b> <0.00100	<0.00100	<0.00100	<0.00100	(mg/L) <0.000200	(mg/L) 748	(mg/L) 2200
5/27/2004 MW-2 4.27	7.18	20.63	26.50	<0.00100	<0.00100	<0.00100	<0.00100	<0.000200	869	2990
5/27/2004 MW-3 2.50	7.42	19.93	26.88	<0.00100	<0.00100	<0.00100	<0.00100	0.00095	467	1616
5/27/2004 MW-4 2.47	7.47	20.40	26.50	<0.00100	<0.00100	<0.00100	<0.00100	<0.000200	511	1716
5/27/2004 MW-5 3.00	7.42	19.80	27.10	<0.00500	<0.00500	<0.00500	<0.00500	<0.000200	694	1952
5/27/2004 MW-6 3.00	7.48	19.83	27.13	0.05	0.0608	0.0591	0.139	0.00072	639	2152
4/23/2004 W-01			28.42	<0.00500	<0.00500	<0.00500	<0.00500	0.00039	1610	2855
4/23/2004 W-03			29.83	<0.00500	<0.00500	<0.00500	<0.00500	<0.000200	1240	2190
4/29/2004 W-02			28.32	<0.00500	<0.00500	<0.00500	<0.00500	<0.000200	480	1052
NMWQCC Stds.				0.01	0.75	0.75	0.62	0.03	250	1000

1 1 1 1 1 1

E Chefi

				JAMAR SOIL SAMPLES (FIELD RESULTS)
Date Sample ID	Conductivity (US)	PID	LAB	B T E X (mg/Kg) TPH DRO TPH GRO Chloride  B T E X (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg)
5/11/2004 EXC 1E @ 12' A	139.4	0	z	
5/11/2004 EXC 1E @ 12' B	DUP	0	z	
5/11/2004 EXC 1E @ 21' A	151.2	0	z	
5/11/2004 EXC 1E @ 21' B	DUP	0	z	
5/11/2004 EXC 1E @ 3' A	221	1.3	z	
5/11/2004 EXC 1E @ 3' B	DUP	1.3	z	
5/11/2004 EXC 1E @ 6' A	115.6	0	z	
5/11/2004 EXC 1E @ 6' B	DUP	0	z	
5/11/2004 EXC 1M @ 12' A	1185	0	z	
5/11/2004 EXC 1M @ 12' B	DUP	0	z	
5/11/2004 EXC 1M @ 21'	DUP	1.3	z	
5/11/2004 EXC 1M @ 21'	DUP	1.3	z	
5/11/2004 EXC 1M @ 21' A	421	1.3	z	
5/11/2004 EXC 1M @ 21' B	DUP	1.3	z	
5/10/2004 EXC 1M @ 23'		1.3	>	<50.0 <1.0 414 TPH/Chloride
5/11/2004 EXC 1M @ 3' A	1640	0	Z	Sample reads "T-4.5"
5/11/2004 EXC 1M @ 3' B	DUP	0	z	
5/11/2004 EXC 1M @ 6' A	1313	1.3	z	
5/11/2004 EXC 1M @ 6' B	DUP	1.3	z	
5/10/2004 EXC 1N @ 12' A	302	1.3	z	
5/10/2004 EXC 1N @ 12' B	DUP	1.3	z	
5/10/2004 EXC 1N @ 21' A	198.2	2.7	z	
5/10/2004 EXC 1N @ 21' B	DUP	2.7	z	
5/10/2004 EXC 1N @ 6' A	445	3.7	>	132 <1.0 764 TPH/Chloride
5/10/2004 EXC 1N @ 6' B	DUP	3.7	>	
5/11/2004 EXC 1S @ 12' A	38.5	0	z	
5/11/2004 EXC 1S @ 12' B	DUP	0	z	
5/11/2004 EXC 1S @ 21' A	174.8	1.3	>	<50.0 <1.0 165 TPH/Chloride
5/11/2004 EXC 1S @ 21' B	DUP	1.3	<b>\</b>	
5/11/2004 EXC 1S @ 3' A	88.1	0	z	
5/11/2004 EXC 1S @ 3' B	DUP	0	z	
5/11/2004 EXC 1S @ 6' A	127.2	0	z	
5/11/2004 EXC 1S @ 6' B	DUP	0	z	
5/10/2004 EXC 1W @ 14' A	199.9	1.3	z	
5/10/2004 EXC 1W @ 14' B	DUP	1.3	z	
5/10/2004 EXC 1W @ 21' A	398	2.7	_	50.2 <1.0 614 TPH/Chloride
5/10/2004 EXC 1W @ 21' B	DUP	2.7	<b>\</b>	

	Conductivity			BTEX (mg/Kg)	TPH DRO TPH GRO Chloride	Chloride	
Date Sample ID	(Srl):	PID	LAB	S. B. T. E. X.	√(mg/Kg) (mg/Kg) (mg/Kg) NOTES	(mg/kg)	NOTES
<u>~</u>	282	1.3	z				
5/10/2004 EXC 1W @ 7' B	DUP	1.3	z				
5/27/2004 EXC 2E @ 1		0	>	10900	<1.0		ТРН
5/27/2004 EXC 2E @ 10' A	205	0	z	4			
5/27/2004 EXC 2E @ 10' B	DUP	0	z				
5/27/2004 EXC 2E @ 3	77.5	0	z				
5/27/2004 EXC 2E @ 3' A	132.3	0	>	<50.0	<1.0	14.7	TPH/Chloride
5/27/2004 EXC 2E @ 3' B	DUP	0	z				
5/27/2004 EXC 2E @ 6' A	340	0	z				
5/27/2004 EXC 2E @ 6' B	DUP	0	z				
5/27/2004 EXC 2M @ 10' A	287	1.3	>	<50.0	<1.0	59.2	TPH/Chloride
5/27/2004 EXC 2M @ 10' B	DUP	1.3	>				
5/27/2004 EXC 2M @ 3' A	122.8	0	z				
5/27/2004 EXC 2M @ 3' B	DUP	0	z				
5/27/2004 EXC 2M @ 6' A	570	0	z				
5/27/2004 EXC 2M @ 6' B	DUP	0	z				i
5/11/2004 EXC 2N @ 10' A	108.9	0	z				
5/11/2004 EXC 2N @ 10' B	DUP	0	z				Sample reads "T-1"
5/11/2004 EXC 2N @ 3'	120.5	0	z				
5/11/2004 EXC 2N @ 6' A	157.8	1.3	z				
5/11/2004 EXC 2N @ 6' B	DUP	1.3	z				
5/11/2004 EXC 2S @ 10' A	79.2	0	z				
5/11/2004 EXC 2S @ 10' B	DUP	0	z				
5/11/2004 EXC 2S @ 3' A	67.9	0	z				Sample reads "T-1"
5/11/2004 EXC 2S @ 3' B	DUP	0	z				Sample reads "T-1"
5/11/2004 EXC 2S @ 6' A	160.5	0	z				Sample reads "T-1"
5/11/2004 EXC 2S @ 6' B	DUP	0	z	The state of the s			Sample reads "T-1"
5/11/2004 EXC 2W @ 10' A	64.8	0	z				
5/11/2004 EXC 2W @ 10' B	DUP	0	z				
5/11/2004 EXC 2W @ 3'	DUP	0	z				
5/11/2004 EXC 2W @ 3'	DUP	0	z				
5/11/2004 EXC 2W @ 3' A	62.5	0	Z				
5/11/2004 EXC 2W @ 3' B	DUP	0	z				Sample reads "T-1"
5/11/2004 EXC 2W @ 6' A	289	0	z				Sample reads "T-1"
5/11/2004 EXC 2W @ 6' B	DUP	0	z				Sample reads "T-1"
5/11/2004 EXC 3E @ 10' A	DUP	0	z				
0.00							

			JAMAR SOIL SAMPLES (FIELD RESULTS)	
Date Sample ID (11s)	ity PID	N. L.A.B.	Œ	
2004 EXC 3E @ 3' A	0			
	0	z		
	0	Z		
5/11/2004 EXC 3E @ 8' B 103.9	0	z		
5/11/2004 EXC 3M @ 10' A 270	0	>	< <50.0 <1.0 373 TPH/Chloride	
5/11/2004 EXC 3M @ 10' B DUP	0	>		
5/11/2004 EXC 3M @ 12' 273	1.3	z		
2'	0			
EXC 3M @ 3' A	108/109	)9 Y	724300 1620 468 TPH/Chloride	
	0			
	114	z –		
5/11/2004 EXC 3M @ 8' 98.3	1.3	z		
	0	z		
5/12/2004 EXC 3S @ 10' B DUP	0	z		
5/12/2004 EXC 3S @ 3' A 53.7	1.3	z		
5/12/2004 EXC 3S @ 3' B DUP	1.3	z		
	0	z		
	0	z		
	0	z		
В	0	z		
	0	z		
	0	z		
6' A	1.3	Z		
В	1.3	z	CONST. 4 May.	
	2	<b>&gt;</b>	77000 218 605	
5/12/2004 EXC 4M @ 3' 310	0 8	<b>≻</b>  :	<50.0	
5/12/2004 EXC 4M @ 3	2 6	zz		
5/25/2004 FXC 5F @ 1 149 6	2 0	2		
_	0	:   <del>&gt;</del>	<50.0 <1.0 6.27 TPH/Chloride	
3	0	Z		
5/25/2004 EXC 5E @ 3 59.8	0	z		
	2.7	z		
5/25/2004 EXC 5E @ 6 161	0	Υ	< <50.0 <1.0 131 TPH/Chloride	
EXC 5E @	19.4			
EXC 5E @	52.3	+	The state of the s	
6/3/2004 EXC 5E @ 6	22.2	z		
		-		

STATIONA   CANADA					JAMAR SOIL SAMPLES (FIELD RESULTS)			
17.2   0   N	Sample ID	Conductivity (µS)	PID	LAB	BTEX (mg/kg).	TPH GRO ( (mg/Kg) (	Chloride mg/Kg)	NOTES. SE
284         0         Y         600         <1,0         42,4           48189         0         N         <600         <1,0         1210           12.1         0         N         <600         <1,0         1210           19.8         0         N         <600         <1,0         17.5           19.8         0         N         <600         <1,0         17.5           19.4         N         <600         <1,0         17.5           19.4         N         <600         <1,0         17.5           19.4         N         <600         <1,0         17.5           51.9         0         N         <600         <1,0         17.5           51.9         0         N         <600         <1,0         17.6           60.9         0         N	5/25/2004 EXC 5E Surface	117.2	0	z		_		
188.9   0   N	5/27/2004 EXC 5M @ 1	284	0	>	<50.0	<1.0	42.4	TPH/Chloride
461       0       Y       <60.0	5/27/2004 EXC 5M @ 3	188.9	0	z				
121 0 N N	5/27/2004 EXC 5M @ 6	461	0	Υ	<20.0	<1.0	1210	TPH/Chloride
19.8       0       N       C50.0       <1.0	5/27/2004 EXC 5W @ 1	12.1	0	z				THE PARTY NAMED IN
142.6       0       Y       650.0       <10	5/27/2004 EXC 5W @ 3	19.8	0	z				
18 N   N   N   N   N   N   N   N   N   N	5/27/2004 EXC 5W @ 6	142.6	0	>	<50.0	<1.0	17.5	TPH/Chloride
19.4 N   19.6 N   1	6/2/2004 EXC 6E @ 1		18	z				
16.6 N   16.6 N   16.6 N   19.4 N   19.4 N   11.1 N   13.6 N   13.6 N   13.6 N   14.9   14.	6/2/2004 EXC 6E @ 1		19.4	z				
166 N   167 N   198	6/2/2004 EXC 6E @ 1		20.6	Z				
19.4 N   N   N   N   N   N   N   N   N   N	6/2/2004 EXC 6E @ 3		16.6	z				
22.2       N         11.1       N         13.6       N         51.9       0         18.0       N         19.0       N         10.0       N         12.5       N         609       0         118.4       0         118.4       0         118.4       0         118.4       0         118.4       0         118.4       0         118.4       0         118.4       0         118.4       0         118.4       0         118.4       0         118.5       N         118.6       N         118.7       N         118.8       N         118.9       N         118.0       N	6/2/2004 EXC 6E @ 3		19.4	z				
11.1       N       11.1       N       20.0       1.1.0       739         11.9       N       N       8280       100       7760         12.0       Y       20.0       1.2       1.2       1.2         12.5       N       0       N       1.2       1.2       1.2       1.2         18       0       N       0       1.2	6/2/2004 EXC 6E @ 3		22.2	z				
51.9       0       N       <60.0	6/2/2004 EXC 6E @ 6		11.1	z				
51.9         V         C60.0         <1.0         739           51.9         N         N         C60.0         <1.0	6/2/2004 EXC 6E @ 6		13.6	z				
51.9       0       N       8280       700       1760         18       N       8280       700       1760         13       Y       4.19       1760         12.5       N       609       0       N       155         609       0       N       155       N       155         118.4       0       N       155       N       155         118.5       N       155       N       155       151         118.5       N       155       N       151       151	6/2/2004 EXC 6E @ 6		15.3	>	<50.0	<1.0	739	TPH/Chloride
0 N       N         18 N       N         20.6 Y       (100)         13.5 N       (2.50)         609       (1.38)         18 O       (1.38)         55.0 N       (1.00)         118.4 O       (1.3)         118.5 N       (1.00)         118.6 N       (1.00)         118.7 N       (1.00)         118.8 N       (1.00)         118.9 N       (1.00)         118.0 N       (1.00)         118	5/27/2004 EXC 6M @ 1	51.9	0	z				
18         N         RS280         100         1760           20.6         Y         6.50         41.9         1760           13.5         N         6.50         6.10         1760           609         0         N         6.50         6.10         155           600         0         N         6.50         6.10         155           600         0         N         6.00         1.50         1.50           600         0         N         1.30         N         1.30         N         1.30         N         1.30         N         1.30         N         1.50         1.30 <td>6/2/2004 EXC 6M @ 1</td> <td></td> <td>0</td> <td>z</td> <td></td> <td></td> <td></td> <td></td>	6/2/2004 EXC 6M @ 1		0	z				
20.6         Y         8280         100         1760           13         Y         <50	6/2/2004 EXC 6M @ 1		18	z		3000		
13       Y       <.50	6/2/2004 EXC 6M @ 1		20.6	>	8280	100	1760	TPH/Chloride
12.5       N       C	6/2/2004 EXC 6M @ 3		13	>	<.50	<1.0	41.9	TPH/Chloride
609       0       N       <.50	6/2/2004 EXC 6M @ 3		12.5	z				
609         0         N         < 50         < 1.0         155           18         0         N              155         N            155.5         N	6/2/2004 EXC 6M @ 6		0	z				
609         0         N         COME         N <td>6/2/2004 EXC 6M @ 6</td> <td></td> <td>13.8</td> <td>&gt;</td> <td>&lt;:50</td> <td>&lt;1.0</td> <td>155</td> <td>TPH/Chloride</td>	6/2/2004 EXC 6M @ 6		13.8	>	<:50	<1.0	155	TPH/Chloride
18       0       N       Common N	5/27/2004 EXC 6S @ 1	609	0	z	The second secon			and the second s
500       0       N       600       0       N       800       0       0       N       800       0	5/27/2004 EXC 6S @ 1	18	0	z				
500       0       N       6       N       118.4       0       N       118.4       0       N       11.3       N       11.0       11	6/3/2004 EXC 6S @ 1		55.5	z				
118.4       0       N       6       N       6       N       6       N       6       N       6       N       6       N       6       N       6       N       6       N       7       N       8       8       8       1 <td>5/27/2004 EXC 6S @ 3</td> <td>200</td> <td>0</td> <td>z</td> <td></td> <td></td> <td></td> <td></td>	5/27/2004 EXC 6S @ 3	200	0	z				
357       0       N       (1.0)       N       (1.0)       N       (1.0)	5/27/2004 EXC 6S @ 3	118.4	0	z				
357 0 N <	6/3/2004 EXC 6S @ 3		1.3	z				
16.6 N <	5/27/2004 EXC 6S @ 6	357	0	z				
EXC 6W @ 1       2.7       Y       <.50       <1.0       50.6         EXC 6W @ 3       15.2       N       <.50	6/3/2004 EXC 6S @ 6		16.6	z				
15.2 N <.50 <1.0 71.1 13.6 N <-50 <1.0 71.1 15.2 N	6/3/2004 EXC 6W @ 1		2.7	>	<.50	<1.0	50.6	TPH/Chloride
13.6 N <.50 <1.0 71.1 15.2 N	6/3/2004 EXC 6W @ 3		15.2	z				
1 13.6	6/3/2004 EXC 6W @ 6		4.1	>	<.50	<1.0	71.1	TPH/Chloride
@ 1	6/3/2004 EXC 7E @ 1		13.6	z				
			15.2	z				

;				JAMAR SOIL SAMPLES (FIELD RESULTS)	AR SOIL SAMF FIELD RESULTS)	LES				
Date Sample ID	Conductivity (µs)	PID	LAB	8	BTEX (mg/Kg) T	×	TPH DRC (mg/Kg)	TPH DRO TPH GRO Chloride (mg/Kg) (mg/Kg)	Chloride (mg/Kg	Chloride (mg/Kg) NOTES
6/3/2004 EXC 7E @ 3		16.6	z							
6/3/2004 EXC 7E @ 3		18	z							
6/3/2004 EXC 7E @ 3		20.6	z							
6/3/2004 EXC 7E @ 6		13.6	z							
6/3/2004 EXC 7M @ 1		16.6	≻				92.4	√ 0.1°	880	TPH/Chloride
6/3/2004 EXC 7M @ 3		19.4	>				<.50	<1.0	3250	TPH/Chloride
6/3/2004 EXC 7M @ 6		16.6	Υ				<.50	<1.0 ∠1.0	100	TPH/Chloride
6/3/2004 EXC 7N @ 1	The state of the s	18	N							
6/3/2004 EXC 7N @ 3		15.2	У				<.50	<1.0	752	TPH/Chloride
6/3/2004 EXC 7S @ 1		22.2	Z							
6/3/2004 EXC 7S @ 3		11.1	>				<.50	<1.0	1340	TPH/Chloride
6/3/2004 EXC 7W @ 1		15.2	z		!				,	
6/3/2004 EXC 7W @ 1		13.6	z							
6/3/2004 EXC 7W @ 3		16.6	z							
6/3/2004 EXC 7W @ 3		19.4	z							
5/25/2004 SB1 @ 10-15	153	0	z							
5/25/2004 SB1 @ 15-17	467	0	>						268	Chloride
5/25/2004 SB1 @ 20-22	223	0	Z							
5/25/2004 SB1 @ 25-27	176	0	Υ	<0.0100 <0.0100	100 <0.0100	00 <0.0100	<.50	<1.0		ВТЕХ/ТРН
5/25/2004 SB1 @ 30-32	124.1	0	Z							
5/25/2004 SB1 @ 5-7	271	0	Z							
5/25/2004 SB2 @ 10-12	413	0	z							
5/25/2004 SB2 @ 15-17	567	-	>						535	Chloride
5/25/2004 SB2 @ 20-22	107.8	0	z							
5/25/2004 SB2 @ 25-27	131.9	0	>	<0.0100 <0.0100	100 <0.0100	00 <0.0100	<.50	4.15		втех/трн
5/25/2004 SB2 @ 5-7	54.6	0	z							
5/25/2004 SB3 @ 10-12	141.2	0	z							
5/25/2004 SB3 @ 15-17	170.5	0	Z							
5/25/2004 SB3 @ 20-22	417	0	Z							
5/25/2004 SB3 @ 2-3		70	Υ	<0.0100 <0.0100	100 0.187	7 0.471	29200	49.8		ВТЕХ/ТРН
5/25/2004 SB3 @ 25-27	172.2	0	Υ	<0.0100 <0.0100	100 <0.0100	00 < 0.0100	<.50	<1.0		ВТЕХ/ТРН
5/25/2004 SB3 @ 5-7	134.5	0	z							
5/26/2004 SB4 @ 10-12	138	0	Z							
5/26/2004 SB4 @ 15-17	345	0	z							
5/26/2004 SB4 @ 20-22	365	0	z							
@	86.9	0	Υ	<0.0100 <0.0100	100 <0.0100	00 <0.0100	<.50	<1.0		ВТЕХ/ТРН
5/26/2004 SB4 @ 5-7	504	0	z							

Work Order: 4051321

Jamar

Page Number: 1 of 2 Monument, NM

## **Summary Report**

Dave Henard

Report Date: May 25, 2004

RESPEC

4775 Indian School Rd. NE

Work Order: 4051321

Suite 300

Albuquerque, NM 87110

Project Location: Monument,NM

Project Name:

Jamar

Project Number: 1494

			Date	$_{ m Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
33947	Exc 1 M @ 23'	soil	2004-05-12	00:00	2004-05-13
33948	Exc 1 W @ 21'	soil	2004-05-12	00:00	2004-05-13
33949	Exc 1 N @ 6'	soil	2004-05-12	00:00	2004-05-13
33950	Exc 1 S @ 21'	soil	2004-05-12	00:00	2004-05-13
33951	Exc 2 M @ 10'	soil	2004-05-12	00:00	2004-05-13
33952	Exc 3 M @ 3'	soil	2004-05-12	00:00	2004-05-13
33953	Exc 3 M @ 10'	soil	2004-05-12	00:00	2004-05-13
33954	Exc 4 M @ 1'	soil	2004-05-12	00:00	2004-05-13
33955	Exc 4 M @ 3'	soil	2004-05-12	00:00	2004-05-13

	TPH DRO	TPH GRO
	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)
33947 - Exc 1 M @ 23'	<50.0	<1.00
33948 - Exc 1 W @ 21'	50.2	<1.00
33949 - Exc 1 N @ 6'	132	< 1.00
33950 - Exc 1 S @ 21'	< 50.0	< 1.00
33951 - Exc 2 M @ 10'	< 50.0	< 1.00
33952 - Exc 3 M @ 3'	24300	1620
33953 - Exc 3 M @ 10'	< 50.0	< 1.00
33954 - Exc 4 M @ 1'	77000	218
33955 - Exc 4 M @ 3'	< 50.0	< 1.00

Sample: 33947 - Exc 1 M @ 23'

Param	Flag	Result	Units	RL
Chloride		414	mg/Kg	1.00

Sample: 33948 - Exc 1 W @ 21'

Param	Flag	Result	Units	RL
Chloride		614	mg/Kg	1.00

Report Date: May 25, 2004 1494		Work Order: 4051321 Jamar		Page Number: 2 of 2 Monument,NM	
Sample: 33949 -	Exc 1 N @ 6'				
Param	Flag	Result	Units	RL	
Chloride		764	mg/Kg	1.00	
Sample: 33950 -	Exc 1 S @ 21'				
Param	Flag	Result	Units	RL	
Chloride		165	mg/Kg	1.00	
Sample: 33951 -	Exc 2 M @ 10'				
Param	Flag	Result	Units	RL	
Chloride		59.2	mg/Kg	1.00	
	1 lag	468	mg/Kg		
Param Chloride	Flag	Result 468	Units mg/Kg	RL 1.00	
Sample: 33953 -	Exc 3 M @ 10'				
Param	Flag	$\operatorname{Result}$	Units	RL	
Chloride		373	mg/Kg		
				1.00	
Sample: 33954 - 1	Exc 4 M @ 1'			1.00	
<b>Sample: 33954 -</b> 1		Result	Units	1.00	
	Exc 4 M @ 1'	Result 605	Units mg/Kg		
Param Chloride	Flag			RL	
Param	Flag			RL	

6701 Aberdeen Avenue, Suite 9 155 McCutcheon, Suite H Lubbock, Texas 79424

800 • 378 • 1296

806 • 794 • 1296

FAX 806 • 794 • 1298

Report Date: May 25, 2004

Work Order: 4051321

El Paso, Texas 79932 888 • 588 • 3443 915 • 585 • 3443 E-Mail: lab@traceanalysis.com

FAX 915 • 585 • 4944

## **Analytical and Quality Control Report**

Dave Henard

RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location:

Monument,NM

Project Name:

Jamar

Project Number: 1494

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
33947	Exc 1 M @ 23'	soil	2004-05-12	00:00	2004-05-13
33948	Exc 1 W @ 21'	soil	2004-05-12	00:00	2004-05-13
33949	Exc 1 N @ 6'	soil	2004-05-12	00:00	2004-05-13
33950	Exc 1 S @ 21'	soil	2004-05-12	00:00	2004-05-13
33951	Exc 2 M @ 10'	soil	2004-05-12	00:00	2004-05-13
33952	Exc 3 M @ 3'	soil	2004-05-12	00:00	2004-05-13
33953	Exc 3 M @ 10'	soil	2004-05-12	00:00	2004-05-13
33954	Exc 4 M @ 1'	soil	2004-05-12	00:00	2004-05-13
33955	Exc 4 M @ 3'	soil	2004-05-12	00:00	2004-05-13

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Work Order: 4051321 Jamar

Page Number: 2 of 12 Monument,NM

### **Analytical Report**

Sample: 33947 - Exc 1 M @ 23'

Analysis:

1494

Chloride (IC)

Flag

QC Batch: Prep Batch:

9913 8786 Analytical Method:

E 300.0

Date Analyzed: Date Prepared:

2004-05-24 2004-05-21

Prep Method:

Analyzed By: **JSW** Prepared By: **JSW** 

RL

Parameter Chloride

Result 414

Units mg/Kg

Dilution

RL 1.00

N/A

Sample: 33947 - Exc 1 M @ 23'

Analysis:

TPH DRO

9672

Analytical Method: Date Analyzed:

Mod. 8015B

Prep Method: N/A BP

OC Batch: Prep Batch: 8588

Date Prepared:

2004-05-14 2004-05-14

Analyzed By: Prepared By:

RL

mg/Kg

Parameter

Result < 50.0 Units

Dilution

RL

DS

DRO

mg/Kg

50.0

Flag

128

Flag

1

Spike

150

Recovery

Surrogate n-Triacontane Result Units

Dilution Amount

Recovery 85

Percent

Limits 64.7 - 162

Sample: 33947 - Exc 1 M @ 23'

Analysis:

**TPH GRO** 

9808 QC Batch:

Analytical Method:

Date Analyzed:

S 8015B 2004-05-18 Prep Method:

S 5035 MT

Prep Batch:

8702

Date Prepared: RL

2004-05-18

Analyzed By: Prepared By:

MT

Parameter

Flag

Result

Dilution

Flag

< 1.00

Units mg/Kg

10

RL

GRO

0.790

0.100

Surrogate Trifluorotoluene (TFT)

Units Result 0.765 mg/Kg

mg/Kg

Dilution

10

10

Spike Amount

0.100

0.100

Percent Recovery

76

79

Recovery Limits

70 - 130

70 - 130

Sample: 33948 - Exc 1 W @ 21'

4-Bromofluorobenzene (4-BFB)

Analysis:

Chloride (IC)

QC Batch: 9913 Prep Batch: 8786 Analytical Method: Date Analyzed:

Date Prepared:

E 300.0 2004-05-24 2004-05-21 Prep Method: Analyzed By:

N/A **JSW** Prepared By: JSW

Parameter Flag Result Chloride

RL

614

Units mg/Kg Dilution 50

RL 1.00

Work Order: 4051321

Jamar

Page Number: 3 of 12 Monument, NM

Sample: 33948 - Exc 1 W @ 21'

8588

Analysis: TPH DRO QC Batch: 9672

Prep Batch:

Analytical Method: Date Analyzed: Date Prepared:

Mod. 8015B 2004-05-14 2004-05-14

Prep Method: N/A Analyzed By: BP DS

Prepared By:

RL

Result Parameter Flag Units Dilution RL DRO 50.2 50.0 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		139	mg/Kg	1	150	93	64.7 - 162

Sample: 33948 - Exc 1 W @ 21'

Analysis: **TPH GRO** 9808 QC Batch: Prep Batch: 8702

GRO

Analytical Method: S 8015B Date Analyzed: 2004-05-18 Date Prepared: 2004-05-18

S 5035 Prep Method: Analyzed By: MTPrepared By: MT

RL

0.100

RL Parameter Flag Result

Units Dilution <1.00 mg/Kg 10

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.20	mg/Kg	10	0.100	120	70 - 130
4-Bromofluorobenzene (4-BFB)		0.790	mg/Kg	10	0.100	79	70 - 130

Sample: 33949 - Exc 1 N @ 6'

Analysis: Chloride (IC) QC Batch: 9913 Prep Batch: 8786

Analytical Method: E 300.0 Date Analyzed: 2004-05-24 2004-05-21 Date Prepared:

Prep Method: N/A Analyzed By: **JSW** Prepared By: **JSW** 

RL Parameter Flag Result Units Dilution RL Chloride 764 mg/Kg 50 1.00

Sample: 33949 - Exc 1 N @ 6'

Analysis: TPH DRO QC Batch: 9672 Prep Batch: 8588

Mod. 8015B Analytical Method: Date Analyzed: 2004-05-14 Date Prepared: 2004-05-14

N/A Prep Method: BP Analyzed By: Prepared By: DS

RLParameter Result Units Dilution RL Flag DRO 132 mg/Kg 50.0

1494

Work Order: 4051321

Jamar

Page Number: 4 of 12

Monument,NM

y					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		158	mg/Kg	1	150	105	64.7 - 162

Sample: 33949 - Exc 1 N @ 6'

Analysis:

**TPH GRO** 

OC Batch: Prep Batch: 8702

9808

Analytical Method:

Date Analyzed:

S 8015B 2004-05-18

Date Prepared:

2004-05-18

Prep Method: S 5035

Analyzed By: MT Prepared By:

MT

RL

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Cumagata	Floo	Dogult	T Imita	Dilution	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.24	mg/Kg	10	0.100	124	70 - 130
4-Bromofluorobenzene (4-BFB)		0.812	mg/Kg	10	0.100	81	70 - 130

Sample: 33950 - Exc 1 S @ 21'

Analysis: QC Batch:

Chloride

Chloride (IC)

9913

Prep Batch: 8786

Analytical Method: E 300.0

Date Analyzed:

Date Prepared:

2004-05-24 2004-05-21

Units

Prep Method: N/A

Analyzed By: **JSW** Prepared By: **JSW** 

Parameter Flag

RLResult

165 mg/Kg Dilution 10

RL1.00

Sample: 33950 - Exc 1 S @ 21'

Analysis:

TPH DRO

QC Batch: 9672 Prep Batch: 8588

Analytical Method: Date Analyzed:

Date Prepared:

Mod. 8015B

2004-05-14 2004-05-14

Prep Method: N/A

Analyzed By: BP Prepared By: DS

RL

Parameter Result Units Dilution RL Flag DRO < 50.0 50.0 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	***************************************	133	mg/Kg	1	150	88	64.7 - 162

Sample: 33950 - Exc 1 S @ 21'

Analysis:

TPH GRO

QC Batch:

9808

Prep Batch: 8702

Analytical Method:

S 8015B

Date Analyzed: Date Prepared:

2004-05-18

2004-05-18

Prep Method:

S 5035

Analyzed By: MT Prepared By: MT

1494

Work Order: 4051321

Jamar

Page Number: 5 of 12 Monument,NM

RL

1.00

Prep Method: S 5035

1474			Juntar						
			RL						
Parameter	Flag		Result		Units	Di	lution	RL	
GRO			<1.00		mg/Kg		10	0.100	
						Spike	Percent	Recovery	
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolu	iene (TFT)		0.784	mg/Kg	10	0.100	78	70 - 130	
4-Bromofluc	orobenzene (4-BFB)		0.810	mg/Kg	10	0.100	81	70 - 130	
Sample: 339	951 - Exc 2 M @ 10'								
Analysis:	Chloride (IC)		Analyt	ical Method:	E 300.0		Prep M	ethod: N/A	
QC Batch:	9913		Date A	nalyzed:	2004-05-24		Analyz	ed By: JSW	
Prep Batch:	8786		Date Pr	repared:	2004-05-21		Prepare	d By: JSW	
			RL						

Sample:	33951	- Exc	2	М	(a)	10'
Sample.	33731	- LAU	4	IVE	(u)	ΙU

Flag

Analysis:	TPH DRO
QC Batch:	9672
Pren Ratch	8588

Parameter

Chloride

Analysis:

Analytical Method: Mod. 8015B Date Analyzed: 2004-05-14 Date Prepared: 2004-05-14

Units

mg/Kg

Result

59.2

RL

 8015B
 Prep Method:
 N/A

 05-14
 Analyzed By:
 BP

 05-14
 Prepared By:
 DS

Dilution

Parameter	Fla	g	Result	Uni	ts	Dilution	RL
DRO			<50.0	mg/K	g	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		133	mg/Kg	1	150	88	64.7 - 162

#### Sample: 33951 - Exc 2 M @ 10'

TPH GRO

QC Batch:	9808	Date Analyzed:	2004-05-18		Analyzed By:	
Prep Batch:	8702	Date Prepared:	2004-05-18		Prepared By:	IVI I
		RL				
Parameter	Flag	Result	Units	Dilı	ıtion	RL
GRO		<1.00	mg/Kg		10	0.100
				Cmileo	Domont	Pagayanı

Analytical Method: S 8015B

Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.828	mg/Kg	10	0.100	83	70 - 130
4-Bromofluorobenzene (4-BFB)		0.838	mg/Kg	10	0.100	84	70 - 130

Sample: 33952 - Exc 3 M @ 3'

Report Date: May 25, 2004 1494			Work Order: 4051321 Jamar				Page Number: 6 of 12 Monument,NM			
Analysis: QC Batch: Prep Batch:	Chloride (IC) 9913 8786		Date A	ical Methoo nalyzed: repared:	d: E 300.0 2004-05-2 2004-05-2		Prep M Analyz Prepare	ed By: JSW		
			RL							
Parameter	Flag		Result		Units		Dilution	RL		
Chloride			468		mg/Kg		50	1.00		
Sample: 339	52 - Exc 3 M @ 3'									
Analysis:	TPH DRO		Analytic	al Method:	Mod. 8015B		Prep M	lethod: N/A		
QC Batch:	•		Date An		2004-05-14		Analyz			
Prep Batch:	8588		Date Pre		2004-05-14		Prepar	•		
			RL							
Parameter	Flag		Result		Units		Dilution	RI		
DRO			24300		mg/Kg		200	50.0		
						Spike	Percent	Recovery		
Surrogate	Flag	Result	Units	Di	ilution	Amount	Recovery	Limits		
n-Triacontane	<del></del>	2480	mg/Kg		200	0.750	1653	64.7 - 162		
Analysis: QC Batch:	52 - Exc 3 M @ 3' TPH GRO 9808		Date Ana		S 8015B 2004-05-18		Prep Met Analyzed	By: MT		
Prep Batch:	8702		Date Prep RL	eared:	2004-05-18		Prepared	Ву: МТ		
Parameter	Flag		Result		Units	ī	Dilution	RL		
GRO	1 1 1 1		1620		mg/Kg		500	0.100		
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits		
Trifluorotolue	ene (TFT)	2	1.72	mg/Kg	500	0.100	3	70 - 130		
	robenzene (4-BFB)	3	82.2	mg/Kg	500	0.100	164	70 - 130		
Sample: 339	53 - Exc 3 M @ 10'									
Analysis:	Chloride (IC)		Analyt	ical Method	d: E 300.0		Prep M	ethod: N/A		
QC Batch:	9913			nalyzed:	2004-05-24	1	Analyz			
Pran Ratch	0706			repored:	2004.05.2		Dranara	•		

Date Prepared:

RL

373

Result

2004-05-21

Units

mg/Kg

Prepared By:

Dilution

10

JSW

RL

1.00

Flag

Prep Batch: 8786

Parameter

Chloride

<sup>&</sup>lt;sup>1</sup>Surrogate recovery out of range due to peak interference. QC show the process within control.

<sup>&</sup>lt;sup>2</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

<sup>&</sup>lt;sup>3</sup>High surrogate recovery due to peak interference.

1494

Work Order: 4051321

Jamar

Page Number: 7 of 12 Monument, NM

#### Sample: 33953 - Exc 3 M @ 10'

Analysis: QC Batch:

TPH DRO 9672 Prep Batch: 8588

Analytical Method: Date Analyzed:

Mod. 8015B 2004-05-14

Date Prepared: 2004-05-14 Prep Method:

Analyzed By: BP Prepared By: DS

N/A

RL

Flag Result Units Dilution RL Parameter DRO < 50.0 mg/Kg 50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		134	mg/Kg	1	150	90	64.7 - 162

#### Sample: 33953 - Exc 3 M @ 10'

Analysis: QC Batch:

**TPH GRO** 9808 8702 Prep Batch:

Analytical Method: Date Analyzed:

S 8015B 2004-05-18 2004-05-18 Prep Method: S 5035

Analyzed By: MT Prepared By: MT

RL

Date Prepared:

Parameter Flag Result Units Dilution RL **GRO** <1.00 mg/Kg 0.100 10

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	4	0.686	mg/Kg	10	0.100	69	70 - 130
4-Bromofluorobenzene (4-BFB)		0.843	mg/Kg	10	0.100	84	70 - 130_

#### Sample: 33954 - Exc 4 M @ 1'

Analysis: QC Batch:

Chloride (IC) 9913 Prep Batch: 8786

Analytical Method: Date Analyzed:

E 300.0 2004-05-24 2004-05-21

Prep Method: N/A Analyzed By: **JSW** Prepared By: **JSW** 

RL

1.00

DS

RL Parameter Flag Result Units Dilution Chloride 605 mg/Kg 100

Date Prepared:

#### Sample: 33954 - Exc 4 M @ 1'

Analysis: OC Batch:

TPH DRO 9672 Prep Batch: 8588

Analytical Method: Date Analyzed: Date Prepared:

Mod. 8015B 2004-05-14

2004-05-14

Prep Method: N/A Analyzed By: BP

Prepared By:

RL Parameter Result Flag Units Dilution RL DRO 77000 mg/Kg 200 50.0

<sup>&</sup>lt;sup>4</sup>Low TFT surrogate recovery due to matrix interference. BFB surrogate recovery shows the method to be in control.

1494

Work Order: 4051321

Jamar

Page Number: 8 of 12 Monument, NM

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	5	9730	mg/Kg	200	0.750	6487	64.7 - 162

Sample: 33954 - Exc 4 M @ 1'

Analysis: QC Batch: **TPH GRO** 

9808 Prep Batch: 8702 Analytical Method:

Date Analyzed:

S 8015B

Date Prepared:

2004-05-18 2004-05-18 Prep Method: Analyzed By:

S 5035 MT

Prepared By: MT

RL

Parameter	Flag	Result	Units	Dilution	RL
GRO	***	218	mg/Kg	200	0.100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	6	2.06	mg/Kg	200	0.100	10	70 - 130
4-Bromofluorobenzene (4-BFB)	7	8.03	mg/Kg	200	0.100	40	70 - 130

Sample: 33955 - Exc 4 M @ 3'

Analysis: QC Batch: Chloride (IC) 9913

8786 Prep Batch:

Analytical Method:

Date Analyzed: Date Prepared:

E 300.0 2004-05-24

2004-05-21

Prep Method: N/A JSW Analyzed By:

Prepared By: **JSW** 

RL Flag Result Units Dilution RL Parameter Chloride 293 mg/Kg 1.00 50

Sample: 33955 - Exc 4 M @ 3'

Analysis: QC Batch: Prep Batch:

DRO

TPH DRO 9672 8588

Analytical Method: Date Analyzed:

Date Prepared:

RL

Mod. 8015B 2004-05-14 2004-05-14

Prep Method: N/A Analyzed By: BP

Dilution

Prepared By: DS

Parameter

Flag Result <50.0 Units

mg/Kg

RL

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	Tiag	133		1	150	89	64.7 - 162

Sample: 33955 - Exc 4 M @ 3'

9808

Analysis: QC Batch: **TPH GRO** 

Analytical Method: Date Analyzed:

S 8015B 2004-05-18 Prep Method: S 5035 Analyzed By: MT

50.0

<sup>&</sup>lt;sup>5</sup>Surrogate recovery out of range due to peak interference. QC show the process within control.

<sup>&</sup>lt;sup>6</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

<sup>&</sup>lt;sup>7</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

1494

Work Order: 4051321

Jamar

Page Number: 9 of 12 Monument,NM

Pren	Batch:	8702

Date Prepared:

2004-05-18

Prepared By: MT

Parameter	Flag		RL Result		Units	Di	lution	RL
GRO	Tiag		<1.00		mg/Kg		10	
Surrogate		Flag	Result	Units	Dilution	Spike Percent Amount Recovery		Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B	FB)		0.704 0.812	mg/Kg mg/Kg	10 10	0.100 0.100	70 81	70 - 130 70 - 130

#### Method Blank (2)

QC Batch: 9672

Parameter	rameter Flag			Result	Ţ	Jnits	RL_	
DRO				<50.0	m	g/Kg	50	
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Surrogate	Tiag	Resuit	Oms	Ditation	Amount	Recovery	Liiits	
n-Triacontane		131	mg/Kg	1	150	87	64.7 - 162	

### Method Blank (1)

QC Batch: 9808

Parameter	riag		Result		Units		KL
GRO			1.37		mg/K	3	0.1
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.758	mg/Kg	10	0.100	76	70 - 130
4-Bromofluorobenzene (4-BFB)		0.717	mg/Kg	10	0.100	72	70 - 130

### Matrix Blank (1)

QC Batch: 9913

Parameter	Flag	Result	Units	RL
Chloride		12.9	mg/Kg	1

#### Laboratory Control Spike (LCS-2)

QC Batch: 9672

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
DRO	246	240	mg/Kg	1	250	<12.0	98	3	64.2 - 138	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit _
n-Triacontane	137	136	mg/Kg	1	150	91	90	64.7 - 162

1494

Work Order: 4051321

Jamar

Page Number: 10 of 12 Monument,NM

**Laboratory Control Spike (LCS-1)** 

QC Batch: 9808

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	9.24	9.57	mg/Kg	10	1.00	< 0.381	92	4	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.878	0.861	mg/Kg	10	0.100	88	86	70 - 130
4-Bromofluorobenzene (4-BFB)	0.893	0.877	mg/Kg	10	0.100	89	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 9913

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	24.4	24.5	mg/Kg	1	12.5	12.9	92	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 9808

		MS	MSD			Spike	Matrix			Rec.	RPD
Param		Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	8	12.5	13.2	mg/Kg	10	1.00	< 0.381	125	5	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.10	1.11	mg/Kg	10	0.1	110	111	70 - 130
4-Bromofluorobenzene (4-BFB)	1.07	1.08	mg/Kg	10	0.1	107	108	70 - 130

Matrix Spike (MS-1) QC Batch: 9913

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	859	857	mg/Kg	50	12.5	293	90	0	69.4 - 118	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-4) QC Batch: 9672

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	253	101	64.2 - 138	2004-05-14

Standard (CCV-5)

QC Batch: 9672

<sup>&</sup>lt;sup>8</sup>GRO outside normal limits in MS/MSD. LCS/LCSD and the RPD show the method to be in control.

Work Order: 4051321

Jamar

Page Number: 11 of 12

Monument,NM

			CCV	CCV	CCV	<b>D</b> .	
			CCVs	CCVs	CCVs	Percent	ъ.
<b>n</b>	TCI	TT '-	True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	247	99	64.2 - 138	2004-05-14
Standard (	CCV-6) QC	Batch: 9672					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	244	98	64.2 - 138	2004-05-14
Standard (	ICV-1) QC	Batch: 9808					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	1.00	100	85 - 115	2004-05-18
Standard (	CCV-1) QC	Batch: 9808	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO	Trug	mg/L	1.00	0.957	96	85 - 115	2004-05-18
Standard (	CCV-2) QC	Batch: 9808					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	0.921	92	85 - 115	2004-05-18
Standard (1	ICV-1) QC	Batch: 9913					
Standard (!	ICV-1) QC	Batch: 9913	CCVs	CCVs	CCVs	Percent	
·	, ,		True	Found	Percent	Recovery	Date
Param	ICV-1) QC Flag	Units	True Conc.	Found Conc.	Percent Recovery	Recovery Limits	Analyzed
Param	, ,		True	Found	Percent	Recovery	Analyzed
Param Chloride	Flag	Units	True Conc.	Found Conc.	Percent Recovery	Recovery Limits	Analyzed
Param Chloride	Flag	Units mg/Kg	True Conc. 12.5	Found Conc. 11.6	Percent Recovery 93	Recovery Limits 90 - 110  Percent	Analyzed 2004-05-24
Param Chloride Standard (6	Flag CCV-1) QC	Units mg/Kg Batch: 9913	True Conc. 12.5  CCVs True	Found Conc. 11.6  CCVs Found	Percent Recovery 93 CCVs Percent	Recovery Limits 90 - 110  Percent Recovery	Analyzed 2004-05-24 Date
Param Chloride  Standard (  Param Chloride	Flag	Units mg/Kg	True Conc. 12.5	Found Conc. 11.6	Percent Recovery 93	Recovery Limits 90 - 110  Percent	Analyzed 2004-05-24

The first transfer to the first of the first of the first of the first to the first to the first of the first

1494

Work Order: 4051321 Jamar

Page Number: 12 of 12 Monument, NM

ORIGINAL COPY

DIO1-Disbnsts mori Insiellib ii emiT bnuoiA niul % CHAIN-OF-CUSTODY AND ANALYSIS REQUEST Ò Check II Special Reporting Limits Are Needed XXXXXXXXXX 405132 Hq SST GOB (Circle or Specify Method No.) 809/A1808 asbibiles 9 ANALYSIS REQUEST bCB.≥ 8095\608 CC/WZ 26mi AN 8270C/625 GC/W2 AM 8590B/954 762 TCLP Pesticides LAB Order ID # TCLP Semi Volatiles LCCP volatiles TCLP Metals Ag As Ba Cd Cr Pb Se Hg LAB USE Carrier # (LDS) Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200 7 Log-in Pleview PAH 8270C Headspace 2001XT\1814 H9T Temp Intact\_ BTEX 8021B/602 MTBE 80218/602 SAMPLING TIME 155 McCutcheon, Suite H El Paso, Texas 79932 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 r **BTAQ** 3.3 0400 7641 PRESERVATIVE METHOD Time: NONE XX ime ICE 5-1304 HOSN Ø Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. S 'OS'H Date: Date: Ц TraceAnalysis, Inc HNO Phone #: 202 HCI Fax #: MATRIX SCUDGE 87110 AIA NOS X MATER Received by: 1, 402 Received by 402 4:4 1.7 40,4 407 402 45.4 InuomA\9muloV A80 \* CONTAINERS 3:30 Time: Inter City, Zip) KINE as 28 ρ H 0 01 W RESPEC Date: Date: 28 ø • 0 Q 01 Aberdeen Avenue. Ste. 9 Lubbock, Texas 79424 Tel (805) 794-1296 Fax (806) 794-1296 1 (800) 376-1296 E É 3 Ź Eve 4 M MONUMENT E E2823 different from above) Eve 4 GYC 3 Exc Exc EXC 1 45 to 1 Company Name: Relinquished by: Relinquished by かって 27 (LAB USE) 3347 Address:  $S_{\psi}$  $\mathcal{S}$ Project #:

Work Order: 4051321

Jamar

Page Number: 1 of 2 Monument,NM

# **Summary Report**

Dave Henard

Report Date: May 25, 2004

RESPEC

4775 Indian School Rd. NE

Work Order: 4051321

Suite 300

Albuquerque, NM 87110

Project Location: Monument,NM

Project Name:

Jamar

Project Number: 1494

			Date	$\mathbf{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
33947	Exc 1 M @ 23'	soil	2004-05-12	00:00	2004-05-13
33948	Exc 1 W @ 21'	soil	2004-05-12	00:00	2004-05-13
33949	Exc 1 N @ 6'	soil	2004-05-12	00:00	2004-05-13
33950	Exc 1 S @ 21'	soil	2004-05-12	00:00	2004-05-13
33951	Exc 2 M @ 10'	soil	2004-05-12	00:00	2004-05-13
33952	Exc 3 M @ 3'	soil	2004-05-12	00:00	2004-05-13
33953	Exc 3 M @ 10'	soil	2004-05-12	00:00	2004-05-13
33954	Exc 4 M @ 1'	soil	2004-05-12	00:00	2004-05-13
33955	Exc 4 M @ 3'	soil	2004-05-12	00:00	2004-05-13

	TPH DRO	TPH GRO
	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)
33947 - Exc 1 M @ 23'	<50.0	<1.00
33948 - Exc 1 W @ 21'	50.2	<1.00
33949 - Exc 1 N @ 6'	132	< 1.00
33950 - Exc 1 S @ 21'	< 50.0	<1.00
33951 - Exc 2 M @ 10'	< 50.0	< 1.00
33952 - Exc 3 M @ 3'	24300	1620
33953 - Exc 3 M @ 10'	< 50.0	< 1.00
33954 - Exc 4 M @ 1'	77000	218
33955 - Exc 4 M @ 3'	< 50.0	< 1.00

Sample: 33947 - Exc 1 M @ 23'

Param	Flag	Result	Units	$\mathrm{RL}_{\_}$
Chloride		414	mg/Kg	1.00

Sample: 33948 - Exc 1 W @ 21'

Param	Flag	Result	Units	RL_
Chloride		614	mg/Kg	1.00

Report Date: May 2- 1494	5, 2004	Work Order: 4051321 Jamar		Page Number: 2 of 2 Monument,NM
Sample: 33949 - E	Exc 1 N @ 6'			
Param	Flag	Result	Units	RL
Chloride		764	mg/Kg	1.00
Sample: 33950 - E	Exc 1 S @ 21'			
Param	Flag	Result	Units	RL
Chloride		165	mg/Kg	1.00
Sample: 33951 - E	Exc 2 M @ 10'			
Param	Flag	Result	Units	RL
Chloride		59.2	mg/Kg	1.00
Param Chloride	Flag	Result 468	Units mg/Kg	RL 1.00
	7 108			1.00
Sample: 33953 - E	exc 3 M @ 10'			
Param	Flag	Result	Units	RL
Chloride		373	mg/Kg	1.00
Sample: 33954 - E	exc 4 M @ 1'			
Param	Flag	Result	Units	RL
Chloride		605	mg/Kg	1.00
Sample: 33955 - E	exc 4 M @ 3'			
Param	Flag	Result	Units	RL

6701 Aberdeen Avenue, Suite 9 155 McCutcheon, Suite H Lubbock, Texas 79424

800 • 378 • 1296

806 • 794 • 1296 915 • 585 • 3443 FAX 806 • 794 • 1298

El Paso, Texas 79932 888 • 588 • 3443 915 E-Mail: lab@traceanalysis.com FAX 915 • 585 • 4944

Work Order:

Report Date: May 25, 2004

4051321

# **Analytical and Quality Control Report**

Dave Henard

RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location:

Monument,NM

Project Name:

Jamar

Project Number: 1494

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
33947	Exc 1 M @ 23'	soil	2004-05-12	00:00	2004-05-13
33948	Exc 1 W @ 21'	soil	2004-05-12	00:00	2004-05-13
33949	Exc 1 N @ 6'	soil	2004-05-12	00:00	2004-05-13
33950	Exc 1 S @ 21'	soil	2004-05-12	00:00	2004-05-13
33951	Exc 2 M @ 10'	soil	2004-05-12	00:00	2004-05-13
33952	Exc 3 M @ 3'	soil	2004-05-12	00:00	2004-05-13
33953	Exc 3 M @ 10'	soil	2004-05-12	00:00	2004-05-13
33954	Exc 4 M @ 1'	soil	2004-05-12	00:00	2004-05-13
33955	Exc 4 M @ 3'	soil	2004-05-12	00:00	2004-05-13

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

1494

Work Order: 4051321 Jamar

Page Number: 2 of 12 Monument,NM

### **Analytical Report**

Sample: 33947 - Exc 1 M @ 23'

Analysis:

Chloride (IC)

QC Batch: 9913

Prep Batch: 8786 Analytical Method:

Date Analyzed:

E 300.0 2004-05-24

Date Prepared:

2004-05-21

Prep Method:

Analyzed By: Prepared By:

**JSW JSW** 

RL

Parameter Chloride

Flag Result 414

Units mg/Kg Dilution 50 RL

1.00

N/A

Sample: 33947 - Exc 1 M @ 23'

Analysis: QC Batch:

Prep Batch:

TPH DRO 9672

Analytical Method: Date Analyzed:

Mod. 8015B

2004-05-14

Prep Method:

N/A Analyzed By: BP

Date Prepared:

2004-05-14

Prepared By:

DS

RL

Parameter Flag DRO

8588

Result < 50.0

Units mg/Kg Dilution

85

RL

Spike Percent

50.0 Recovery

Limits

64.7 - 162

Surrogate Flag Result Units Dilution Amount Recovery n-Triacontane 128 150 mg/Kg

Sample: 33947 - Exc 1 M @ 23'

Analysis: QC Batch:

Prep Batch:

**TPH GRO** 

9808 8702 Analytical Method: Date Analyzed:

Date Prepared:

S 8015B 2004-05-18

2004-05-18

Prep Method: S 5035

Analyzed By: MT Prepared By: MT

RL

Flag **GRO** 

Result

Recovery

76

79

Parameter

<1.00

Units mg/Kg Dilution 10 RL

Surrogate

Units mg/Kg Dilution

10

10

Spike Percent

Amount

0.100

0.100

0.100 Recovery

Limits

70 - 130

70 - 130

Flag Result Trifluorotoluene (TFT) 0.765 4-Bromofluorobenzene (4-BFB) 0.790 mg/Kg

Analytical Method:

E 300.0

Prep Method:

N/A **JSW JSW** 

QC Batch: Prep Batch: 8786

Analysis:

9913

Chloride (IC)

Sample: 33948 - Exc 1 W @ 21'

Date Analyzed: Date Prepared:

2004-05-24 2004-05-21 Analyzed By: Prepared By:

Flag Chloride

RL

RL

Parameter

Result 614

Units mg/Kg Dilution 50

1.00

1494

Work Order: 4051321

Jamar

Page Number: 3 of 12 Monument, NM

Sample: 33948 - Exc 1 W @ 21'

Analysis: OC Batch: Prep Batch:

TPH DRO 9672 8588

Analytical Method: Date Analyzed: Date Prepared:

Mod. 8015B 2004-05-14

2004-05-14

Prep Method: N/A Analyzed By: BP Prepared By: DS

RL

Flag Result Dilution RLParameter Units 50.2 50.0 DRO mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		139	mg/Kg	1	150	93	64.7 - 162

Sample: 33948 - Exc 1 W @ 21'

Analysis: QC Batch:

Parameter

**GRO** 

**TPH GRO** 9808 Prep Batch: 8702

Analytical Method: Date Analyzed:

Date Prepared:

S 8015B 2004-05-18

2004-05-18

Prep Method: S 5035

Analyzed By: MT Prepared By: MT

Flag

RL Result Units Dilution RL <1.00 mg/Kg 10 0.100

Suma gata	Elec	Dogult	I Imian	Dilution	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.20	mg/Kg	10	0.100	120	70 - 130
4-Bromofluorobenzene (4-BFB)		0.790	mg/Kg	10	0.100	79	70 - 130 _

Sample: 33949 - Exc 1 N @ 6'

Analysis: Chloride (IC)

QC Batch: 9913 Prep Batch: 8786 Analytical Method: Date Analyzed:

Date Prepared:

E 300.0 2004-05-24 2004-05-21 Prep Method: N/A Analyzed By: **JSW** 

**JSW** 

Prepared By:

RL Parameter Flag Result Units Dilution RLChloride 764 1.00 mg/Kg 50

Sample: 33949 - Exc 1 N @ 6'

8588

Analysis: TPH DRO QC Batch: 9672

Prep Batch:

Analytical Method: Date Analyzed: Date Prepared:

Mod. 8015B 2004-05-14 2004-05-14

Prep Method: N/A Analyzed By: BP Prepared By: DS

RLParameter Flag Result Units Dilution RL DRO 132 50.0 mg/Kg

Analysis:

QC Batch:

Chloride (IC)

9913

Work Order: 4051321

Page Number: 4 of 12

Prep Method: N/A

Analyzed By: JSW

1494			· · · · · · · · · · · · · · · · · · ·	Jama			Monument,NM		
Surrogate	Flag	Result	Units	D:	ilution	Spike Amount	Percent Recovery	Recovery Limits	
n-Triacontane		158	mg/Kg		1	150	105	64.7 - 162	
Sample: 33949	- Exc 1 N @ 6'								
Analysis: TI	PH GRO		Analytica	ıl Method:	S 8015B		Prep Met	hod: S 5035	
QC Batch: 98	308		Date Ana	lyzed:	2004-05-18		Analyzed	By: MT	
Prep Batch: 87	702		Date Prep	pared:	2004-05-18		Prepared	By: MT	
			RL						
Parameter	Flag		Result		Units	Γ	Dilution	· RL	
GRO			<1.00		mg/Kg		10	0.100	
						Spike	Percent	Recovery	
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotoluene	(TFT)		1.24	mg/Kg	10	0.100	124	70 - 130	
4-Bromofluorob			0.812	mg/Kg	10	0.100	81	70 - 130	
Sample: 33950	- Exc 1 S @ 21'								

Prep Batch: 8786		Date Prepared:	2004-05-21	Prepared By:	JSW
,		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		165	mg/Kg	10	1.00

Date Analyzed:

Analytical Method: E 300.0

2004-05-24

n-Triacontane	 !	133	mg/Kg	1	150	- 88	64.7 - 162
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
DRO		1-	<50.0	mg/K	g	1	50.0
Parameter	Fla	ıg	RL Result	Unit	ts .	Dilution	RL
QC Batch: Prep Batch:	9672 8588		Date Analyzed: Date Prepared:	2004-05- 2004-05-	14	Ana	alyzed By: BP pared By: DS
Analysis:	TPH DRO		Analytical Meth	od: Mod. 80	15B	Pret	Method: N/A
Sample: 339	50 - Exc 1 S @ 21	,					

Sample: 339	950 - Exc 1 S @ 21'				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9808	Date Analyzed:	2004-05-18	Analyzed By:	MT
Prep Batch:	8702	Date Prepared:	2004-05-18	Prepared By:	MT

1494

Work Order: 4051321

Jamar

Page Number: 5 of 12 Monument,NM

•								,
			RL					
Parameter	Flag		Result		Units		Dilution	RI
GRO	5		<1.00		mg/Kg		10	0.100
		· · · · · · · · · · · · · · · · · · ·			88			
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	<u>*</u>	Limits
Trifluorotolu			0.784	mg/Kg	10	0.100	78	70 - 130
4-Bromoffuo	probenzene (4-BFB)		0.810	mg/Kg	10	0.100	81	70 - 130
Sample: 339	951 - Exc 2 M @ 10'							
Analysis:	Chloride (IC)		Analyti	ical Method	E 300.0		Prep M	lethod: N/A
QC Batch:	9913			nalyzed:	2004-05-24	}		ed By: JSW
Prep Batch:	8786			repared:	2004-05-21		Prepar	•
			RL					
Parameter	Flag		Result		Units		Dilution	RL
Chloride			59.2		mg/Kg		5	1.00
Analysis:	751 - Exc 2 M @ 10' TPH DRO			al Method:	Mod. 8015B			Method: N/A
QC Batch:	9672		Date Ana		2004-05-14		Analy	zed By: BP
Prep Batch:	8588		Date Pre	pared:	2004-05-14		Prepar	ed By: DS
			RL					
Parameter	Flag		Result		Units		Dilution	RL
DRO			< 50.0		mg/Kg		1	50.0
						Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Di	lution	Amount	Recovery	Limits
n-Triacontan	е	133	mg/Kg		1	150	88	64.7 - 162
	951 - Exc 2 M @ 10'							
Analysis:	TPH GRO		Analytica		S 8015B		Prep Met	
QC Batch:	9808		Date Anal		2004-05-18		Analyzed	•
Prep Batch:	8702		Date Prep	ared:	2004-05-18		Prepared	By: MT
			RL					
Parameter	Flag		Result		Units		Dilution	RL
GRO			<1.00		mg/Kg		10	0.100
_						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
			0.000	1	4.0			

0.828

0.838

mg/Kg

mg/Kg

10

10

0.100

0.100

83

84

70 - 130

70 - 130

Sample: 33952 - Exc 3 M @ 3'

4-Bromofluorobenzene (4-BFB)

Trifluorotoluene (TFT)

1494	: May 25, 2004		Work Order: 4051321 Jamar				Page Number: 6 of 12  Monument,NM		
Analysis: QC Batch: Prep Batch:	Chloride (IC) 9913 8786		Date A	ical Method analyzed: repared:	: E 300.0 2004-05-24 2004-05-21			zed By: JS	I/A SW SW
			RL						
Parameter	Flag		Result		Units		Dilution		RL
Chloride			468		mg/Kg		50	1	00.1
Sample: 339	952 - Exc 3 M @ 3'								
Analysis:	TPH DRO		Analytic	al Method:	Mod. 8015B		Prep N	Method: N	N/A
QC Batch:	9672		Date An		2004-05-14		•		3P
Prep Batch:	8588		Date Pre	pared:	2004-05-14				OS
			RL						
Parameter	Flag		Result		Units		Dilution		RL
DRO			24300		mg/Kg		200	5	0.0
Surrogate	Flag	Result	Units	D:	lution	Spike Amount	Percent Recovery	Recove Limit	
n-Triacontan		2480	mg/Kg		200	0.750	1653	64.7 - 1	
C	N52 F . 2 M @ 2								
Sample: 339 Analysis: QC Batch: Prep Batch:	952 - Exc 3 M @ 3' TPH GRO 9808 8702		Analytica Date Ana Date Prep		S 8015B 2004-05-18 2004-05-18		Prep Met Analyzec Prepared	By: MT	•
Analysis: QC Batch:	TPH GRO 9808		Date Ana Date Prep	lyzed:	2004-05-18		Analyzed	d By: MT	•
Analysis: QC Batch: Prep Batch:	TPH GRO 9808		Date Ana Date Prep RL Result	lyzed:	2004-05-18		Analyzed	d By: MT By: MT	RL
Analysis: QC Batch: Prep Batch:	TPH GRO 9808 8702		Date Ana Date Prep RL	lyzed:	2004-05-18 2004-05-18		Analyzec Prepared	d By: MT By: MT	
Analysis: QC Batch: Prep Batch: Parameter GRO	TPH GRO 9808 8702	Flag	Date Ana Date Prep RL Result	lyzed:	2004-05-18 2004-05-18 Units	Spike Amount	Analyzed Prepared  Dilution  500  Percent	d By: MT By: MT	RL 100
Analysis: QC Batch: Prep Batch: Parameter GRO	TPH GRO 9808 8702 Flag	Flag	Date Ana Date Prep RL Result 1620  Result	lyzed: pared: Units	2004-05-18 2004-05-18 Units mg/Kg	Spike Amount	Analyzed Prepared  Dilution  500  Percent Recovery	d By: MT By: MT 0.1 Recove	RL 100 very
Analysis: QC Batch: Prep Batch: Parameter GRO Surrogate Trifluorotolu	TPH GRO 9808 8702 Flag	Flag	Date Ana Date Prep RL Result	lyzed: pared:	2004-05-18 2004-05-18 Units mg/Kg	Spike	Analyzed Prepared  Dilution  500  Percent	d By: MT By: MT	RL 100 very its
Analysis: QC Batch: Prep Batch:  Parameter GRO  Surrogate Trifluorotolu 4-Bromofluo	TPH GRO 9808 8702  Flag	2	Date Ana Date Prep RL Result 1620  Result 1.72	Units mg/Kg	2004-05-18 2004-05-18 Units mg/Kg Dilution 500	Spike Amount 0.100	Analyzed Prepared  Dilution 500  Percent Recovery 3	By: MT  By: MT  0.1  Recove Limit 70 - 1	RL 100 very its
Analysis: QC Batch: Prep Batch: Parameter GRO Surrogate Trifluorotolu 4-Bromofluo	TPH GRO 9808 8702  Flag  Tene (TFT) probenzene (4-BFB)	2	Date Ana Date Prep RL Result 1620  Result 1.72 82.2	Units mg/Kg mg/Kg	2004-05-18 2004-05-18 Units mg/Kg Dilution 500 500	Spike Amount 0.100	Analyzed Prepared  Dilution 500  Percent Recovery 3 164	0.1  Recove Limit 70 - 1	RL 100 very its 30 30
Analysis: QC Batch: Prep Batch:  Parameter GRO  Surrogate Trifluorotolu 4-Bromofluo	TPH GRO 9808 8702  Flag  ene (TFT) probenzene (4-BFB)	2	Date Ana Date Prep RL Result 1620  Result 1.72 82.2  Analyt	Units mg/Kg	2004-05-18 2004-05-18 Units mg/Kg Dilution 500 500	Spike Amount 0.100 0.100	Analyzed Prepared  Dilution 500  Percent Recovery 3 164	By: MT  O.1  Recove Limit  70 - 1  70 - 1	RL 100 very its
Analysis: QC Batch: Prep Batch: Parameter GRO Surrogate Trifluorotolu 4-Bromofluo Sample: 339 Analysis:	TPH GRO 9808 8702  Flag  Tene (TFT) probenzene (4-BFB)  P53 - Exc 3 M @ 10°  Chloride (IC)	2	Date Ana Date Prep RL Result 1620  Result 1.72 82.2  Analyt Date A	Units mg/Kg mg/Kg	2004-05-18 2004-05-18 Units mg/Kg Dilution 500 500	Spike Amount 0.100 0.100	Analyzed Prepared  Dilution 500  Percent Recovery 3 164	By: MT  By: MT  0.1  Recove Limit  70 - 1  70 - 1	RL 100 very its 130 30
Analysis: QC Batch: Prep Batch: Parameter GRO Surrogate Trifluorotolu 4-Bromofluo Sample: 339 Analysis: QC Batch:	TPH GRO 9808 8702  Flag  Flag  Pene (TFT) probenzene (4-BFB)  Chloride (IC) 9913 8786	2	Result 1.72 82.2  Analyt Date A Date Prep	Units mg/Kg mg/Kg	2004-05-18 2004-05-18 Units mg/Kg Dilution 500 500 500 : E 300.0 2004-05-24 2004-05-21	Spike Amount 0.100 0.100	Analyzed Prepared  Dilution 500  Percent Recovery 3 164  Prep M Analyzed Prepared	d By: MT By: MT  0.1  Recove Limit 70 - 1 70 - 1	RL 100 very its 30 30 30 J/A SW SW
Analysis: QC Batch: Prep Batch: Parameter GRO Surrogate Trifluorotolu 4-Bromofluo Sample: 339 Analysis: QC Batch:	TPH GRO 9808 8702  Flag  Tene (TFT) probenzene (4-BFB)  P53 - Exc 3 M @ 10' Chloride (IC) 9913	2	Result 1.72 82.2  Analyt Date Prep	Units mg/Kg mg/Kg	2004-05-18 2004-05-18 Units mg/Kg Dilution 500 500 500	Spike Amount 0.100 0.100	Analyzed Prepared  Dilution 500  Percent Recovery 3 164  Prep M Analyze	d By: MT By: MT  0.1  Recove Limit 70 - 1 70 - 1  Method: N zed By: JS ed By: JS	RL 100 very its 130 130

<sup>&</sup>lt;sup>1</sup>Surrogate recovery out of range due to peak interference. QC show the process within control.

<sup>&</sup>lt;sup>2</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control. <sup>3</sup>High surrogate recovery due to peak interference.

1494

Work Order: 4051321

Jamar

Page Number: 7 of 12 Monument, NM

#### Sample: 33953 - Exc 3 M @ 10'

Analysis: QC Batch:

TPH DRO 9672 Prep Batch: 8588

Analytical Method: Date Analyzed: Date Prepared:

Mod. 8015B 2004-05-14

2004-05-14

Prep Method: N/A Analyzed By: BP

Prepared By: DS

Parameter	Flag	Result	Units	Dilution	RL
DRO		< 50.0	mg/Kg	1	50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		134	mg/Kg	1	150	90	64.7 - 162

#### Sample: 33953 - Exc 3 M @ 10'

Analysis: QC Batch:

**TPH GRO** 9808 Prep Batch: 8702

Analytical Method: Date Analyzed:

S 8015B 2004-05-18 2004-05-18 Prep Method: S 5035

Analyzed By: MT Prepared By: MT

#### RL

Date Prepared:

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	4	0.686	mg/Kg	10	0.100	69	70 - 130
4-Bromofluorobenzene (4-BFB)		0.843	mg/Kg	10	0.100	84	70 - 130

#### Sample: 33954 - Exc 4 M @ 1'

Analysis: QC Batch:

Chloride (IC) 9913 Prep Batch: 8786

Analytical Method: Date Analyzed:

Date Prepared:

E 300.0 2004-05-24 2004-05-21 Prep Method: N/A Analyzed By: JSW Prepared By: **JSW** 

Flag

RL Parameter Result Units Dilution RL Chloride 605 mg/Kg 100 1.00

#### Sample: 33954 - Exc 4 M @ 1'

Analysis: QC Batch:

TPH DRO 9672 Prep Batch: 8588

Analytical Method: Date Analyzed: Date Prepared:

Mod. 8015B 2004-05-14 2004-05-14

Prep Method: Analyzed By: BP Prepared By: DS

N/A

RL

Parameter Flag Result Units Dilution RLDRO 77000 200 50.0 mg/Kg

<sup>&</sup>lt;sup>4</sup>Low TFT surrogate recovery due to matrix interference. BFB surrogate recovery shows the method to be in control.

Work Order: 4051321 Jamar

Page Number: 8 of 12 Monument, NM

)					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	5	9730	mg/Kg	200	0.750	6487	64.7 - 162

Sample: 33954 - Exc 4 M @ 1'

Analysis: **TPH GRO** QC Batch: 9808 Prep Batch: 8702

Analytical Method: S 8015B Date Analyzed: Date Prepared:

2004-05-18 2004-05-18

Prep Method: S 5035 Analyzed By: MTPrepared By: MT

RL Parameter Flag Result Units Dilution RLGRO 218 0.100 mg/Kg 200 Spike Percent Recovery

Flag Units Dilution Surrogate Result Amount Recovery Limits Trifluorotoluene (TFT) 2.06 200 0.100 10 70 - 130 mg/Kg 7 4-Bromofluorobenzene (4-BFB) 8.03 mg/Kg 200 0.100 40 70 - 130

Sample: 33955 - Exc 4 M @ 3'

Analysis: Chloride (IC) OC Batch: 9913 Prep Batch: 8786

Analytical Method: Date Analyzed: Date Prepared:

E 300.0 2004-05-24 2004-05-21 Prep Method: N/A Analyzed By: **JSW** Prepared By: **JSW** 

RL Parameter Flag Result Units Dilution RL Chloride 293 50 1.00 mg/Kg

Sample: 33955 - Exc 4 M @ 3'

Analysis: TPH DRO QC Batch: 9672 Prep Batch: 8588

Analytical Method: Mod. 8015B Date Analyzed: 2004-05-14 Date Prepared: 2004-05-14

Prep Method: N/A Analyzed By: BP Prepared By: DS

RLParameter Result Dilution RL Flag Units DRO 50.0 < 50.0 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		133	mg/Kg	1	150	89	64.7 - 162

Sample: 33955 - Exc 4 M @ 3'

Analysis: **TPH GRO** QC Batch: 9808

Analytical Method: S 8015B Date Analyzed: 2004-05-18

S 5035 Prep Method: Analyzed By: MT

<sup>&</sup>lt;sup>5</sup>Surrogate recovery out of range due to peak interference. QC show the process within control.

<sup>&</sup>lt;sup>6</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

<sup>&</sup>lt;sup>7</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

Trifluorotoluene (TFT)

4-Bromofluorobenzene (4-BFB)

1494

Work Order: 4051321

Jamar

Page Number: 9 of 12 Monument,NM

70 - 130

70 - 130

Prep Batch: 8702			Date Prepar	ed:	2004-05-18		Prepared I	Ву: МТ
Parameter	Flag		RL Result		Units	Di	lution	RL
GRO			<1.00		mg/Kg		10	0.100
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits

mg/Kg

mg/Kg

10

10

0.100

0.100

70

81

0.704

0.812

Method Blank (2) QC Batch: 9672

Parameter	Flag Res			Result	Ţ	Jnits	RL	
DRO				< 50.0	m	g/Kg	50	
<b>a</b> .	T.I.	<b>.</b>	** **	<b>70</b> 11 - 1	Spike	Percent	Recovery	
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits	
n-Triacontane		131	mg/Kg	1	150	87	64.7 - 162	

Method Blank (1) QC Batch: 9808

Parameter	Flag		Result		Units	<b>;</b>	RL
GRO			1.37		mg/Kg	g	0.1
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.758	mg/Kg	10	0.100	76	70 - 130
4-Bromofluorobenzene (4-BFB)		0.717	mg/Kg	10	0.100	72	70 - 130

Matrix Blank (1) QC Batch: 9913

Parameter	Flag	Result	Units	RL
Chloride		12.9	mg/Kg	1

Laboratory Control Spike (LCS-2) QC Batch: 9672

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
DRO	246	240	mg/Kg	1	250	<12.0	98	3	64.2 - 138	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	137	136	mg/Kg	1	150	91	90	64.7 - 162

1494

Work Order: 4051321

Jamar

Page Number: 10 of 12 Monument,NM

Laboratory Control Spike (LCS-1)

QC Batch: 9808

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	9.24	9.57	mg/Kg	10	1.00	< 0.381	92	4	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.878	0.861	mg/Kg	10	0.100	88	86	70 - 130
4-Bromofluorobenzene (4-BFB)	0.893	0.877	mg/Kg	10	0.100	89	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 9913

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	24.4	24.5	mg/Kg	1	12.5	12.9	92	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 9808

		MS	MSD			Spike	Matrix			Rec.	RPD
Param		Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	8	12.5	13.2	mg/Kg	10	1.00	< 0.381	125	5	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

_	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.10	1.11	mg/Kg	10	0.1	110	111	70 - 130
4-Bromofluorobenzene (4-BFB)	1.07	1.08	mg/Kg	10	0.1	107	108	70 - 130

Matrix Spike (MS-1) QC Batch: 9913

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	859	857	mg/Kg	50	12.5	293	90	0	69.4 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-4)

QC Batch: 9672

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	253	101	64.2 - 138	2004-05-14

Standard (CCV-5)

QC Batch: 9672

<sup>&</sup>lt;sup>8</sup>GRO outside normal limits in MS/MSD. LCS/LCSD and the RPD show the method to be in control.

Work Order: 4051321

Jamar

Page Number: 11 of 12 Monument,NM

	······						
			991				
			CCVs	CCVs	CCVs	Percent	<b>.</b>
D	F1	T.7. *4	True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed 2004-05-14
DRO		mg/Kg	250	247	99	64.2 - 138	2004-05-14
Standard (	CCV-6) QC	C Batch: 9672					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	244	98	64.2 - 138	2004-05-14
Standard (	ICV-1) QC	Batch: 9808					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	1.00	100	85 - 115	2004-05-18
Standard (	CCV-1) QC	C Batch: 9808					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	0.957	96	85 - 115	2004-05-18
Standard (	CCV-2) QC	C Batch: 9808					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	0.921	92	85 - 115	2004-05-18
Standard (	ICV-1) QC	Batch: 9913					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	12.5	11.6	93	90 - 110	2004-05-24
Standard (	CCV-1) QC	C Batch: 9913					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		ma/V a	12.5	11.5	02	00 110	2004 05 24

mg/Kg

12.5

11.5

92

90 - 110

2004-05-24

Chloride

Page / of /

Property	6	1	<b>*</b>			~	) 		1551 E1 F	155 McCulcheon,Suite El Paso, Texas 79932	on,Suite H as 79932			CHAIN	1-0F-	UST	DY A	ND AN	IALYS	CHAIN-OF-CUSTODY AND ANALYSIS REQUEST	 	
Property Color   Prop	18 (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296	Lace	A.			<b>S</b>		ز	₩ E ~	el (915) 58 ax (915) 5£ i (886) 586	35-3443 35-4944 3-3443		,	3	Orden	# 0		405	405133			]
Teach Colly, 700   A	ame			,		AF A	6°ة الم			73					₹ 8	VALY	SIS RE	OUES	<u> </u>		[   	]
HELLINGS  HELLIN	treet, City, Zip)	-	980	MX	128	ŭ.	ر. فر	৩		40			_		_	5					_	
THE CODE  THE CO														0B\S00								
Project Name:  The Contact Name:	bove) NM	aso						!				r -	७२		БH						brabard	
THE D CODE  THE D						Proj	H S S	Z 2					クチ		9S 94						is mon	
FIET CODE  THE SERVATIVE  FIET CODE  FIET CO	ment	M				13	pler Sig	Saffre:	]			Ι	030		Cq Ct		Þ	OC1856			Hereni I	
Figure 2   Figure 3   Figure 4	l		SH	)un	2	ATRIX	-	PRESI	ERVATIV	<b> </b>	SAMPLIN	205			68 8A (		29/809			4-5	hb li an	
		ODE	# CONTAINE	omA\smuloV		<u> </u>	HCI	'OS'H	ICE	NONE		MTBE 80218/6	IXT\r 816 H9T	gA sisieM isioT				PCB's 8082/608	Pesticides 8081	2110183	niT bruonA mvT	НоИ
1	7 Exc 1 m e	23'	_	1.	X				Ê	~	_	-	X	-	_	_				X		ļ
1	Exc/We		_	4.2	X				-	<u>بر</u>		_	X		<u> -</u>	-				×		
1 402 × 1 1 402 × 1	Exc 1 N	,7	_	402	X				-\	×			X							×		
2.3 M C 10 1 402 × X X X X X X X X X X X X X X X X X X	EXC 1 S e	7.	1	402	×				_	×			प्र							X		
1 402 X	1 Exc 2 M @	ر ۵ ,	/	202	×				1	ע			X							- -		
1 4 cx   X   X   X   X   X   X   X   X   X	6363 Me	3,	1	402	X					×			X							~		
LAB USE         Image         <	6x23 MC	0,	'	402	×					メ			X						_	×		
Date: Time: Received by: Date: Time: Headspace YIN Buse Headspace YIN Headspace YIN Headspace YIN Headspace YIN Headspace YIN	Exe4Me1		/	402	X					×			×							ょ		
Date: Time: Received by: Date: Time: LAB USE  ONLY  Date: Time: Received by: Date: Time: Headspace YIN	S Excy Me3	_	`	4,5	×					×			×							×		
Date: Time: Received by: Date: Time: LAB USE  ONLY  Date: Time: Received by: Date: Time: Headspace Y I N					1		1				7	1			-		_					_
Date: Time: Received by: Date: Time: LAB USE  ONLY  Date: Time: Received by: Date: Time: Infact (Y) N  Headspace (Y / N	1				-	4			-	4	_	1	7	7	4	-	_	7	_		$\exists$	_
Date: Time: Received by: Date: Time: Intact (Y) M Headspace (Y / N	7		Recei	ved by:				Date:	Ë	ù			₹°`	S US	Ш	REW	ARKS:					
		ļ	Recei	ved by:				Date:	Ē	<u></u>		是 Hea	) ba	7	z							
Uate: Hecelydd at abolatory by; Uate: Time: Hecelydd at abolatory by; Ch. S-1304 /3;3 > Log-in Review W	Relinquished by: Date:	Time:	Recei	ved at	Jaborat (	ory py:	3	Date: \$ -13	Tim 'O'	3.	\ \ \ \	Ten	d de di	Me	° 📚	- 		s Are Ne	Check II Special Reporting Limits Are Needed	<u>Š</u>		
Submillal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.	Submittal of samples constitutes agre-	ement to Terms	and Co	nditions	s listed t	on revers	ie side c	1 C.O.C.				ট	Tier#	SQT		76.	7 1/1	76	22/0	\$ 100	2	$\sim$

Relinquished by: Relinquished by: Relinquished Project #: Invoice to:
(If different from above)  $\mathcal{NM}$ Contact Person: Submittal of sam Project Location: Company Name: (LAB USE) Address: (Street, City, Zip)
4775 Indian School RJ NE 6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1465 LAB # 54 5 SI GYL3 MC 24 MONUMENT h5 T1 (800) 378-1296 62 3 Me Erc 4 M e Ex 2 M Exc 1 S Exc 1 N EXCH M E Excl Exc HENLAR RESPEC onstitutes agreement to Terms and Conditions listed on reverse side of C.O.C. E FIELD CODE Date: 0 0 0 10 W 0 9 TraceAnalysis, Inc ^ 3:30 Time: Time: B Time: ABQ NM 87/10 Received at Labo Received by: Received by: # CONTAINERS 402 402 4.4 202 20 7 402 402 Volume/Amount WATER X X SOIL × MATRIX AIR Fax #: Phone # SLUDGE 405 HCI 268 0040 Date: Date: HNO<sub>3</sub> 268 PRESERVATIVE H<sub>2</sub>SO<sub>4</sub> METHOD NaOH 2641 ICE 155 McCutcheon,Suite H El Paso, Texas 79932 Tel (915) 585-3443 Fax (915) 585-4944 lime: X X × × NONE 1 (888) 588-3443 SAMPLING DATE TIME Carrier # LUPS emp Intact\_ MTBE 8021B/602 Headspace BTEX 8021B/602 LAB USE TPH 418.1/TX1005 CHAIN-OF-CUSTODY AND ANALYSIS REQUEST Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 LAB Order ID # Y / N TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles (Circle or Specify Method No.) **ANALYSIS REQUEST** TCLP Semi Volatiles REMARKS: **TCLP Pesticides** RCI Check If Special Reporting Limits Are Needed GC/MS Vol. 8260B/624 405/32 GC/MS Semi. Vol. 8270C/625 PCB's 8082/608 Pesticides 8081A/608 BOD, TSS, pH X. X. X. X. X. X. X. X. Turn Around Time if different from standard Hold

Page / of /

OPIGINAL COPY

Work Order: 4060103 Jamar Page Number: 1 of 2 Monument,NM

Report Date: June 8, 2004

Work Order: 4060103

# **Summary Report**

John Bunch

RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location: Monument,NM

Project Name: Jamar Project Number: 1494

			Date	$_{ m Time}$	Date
Sample	Description	Matrix	$\operatorname{Taken}$	$\operatorname{Taken}$	Received
35567	SB1 @ 25-27	soil	2004-05-25	00:00	2004-05-29
35568	SB1 @ 15-17	soil	2004-05-25	00:00	2004-05-29
35569	SB2 @ 25-27	soil	2004-05-25	00:00	2004-05-29
35570	SB2 @ 15-17	soil	2004-05-25	00:00	2004-05-29
35571	SB3 @ 2-3	soil	2004-05-25	00:00	2004-05-29
35572	SB3 @ 25-27	soil	2004-05-25	00:00	2004-05-29
35573	SB4 @ 25-27	soil	2004-05-26	00:00	2004-05-29
35574	SB4 @ 28-29	soil	2004-05-26	00:00	2004-05-29
35575	SB6 @ 25-27	soil	2004-05-26	00:00	2004-05-29
35576	EXC 2E @ 1	soil	2004-05-27	00:00	2004-05-29
35577	EXC 5E @ 1	soil	2004-05-27	00:00	2004-05-29
35578	EXC 5E @ 6	soil	2004-05-25	17:00	2004-05-29
35579	EXC 5N @ 1	soil	2004-05-26	14:00	2004-05-29
35580	EXC 5N @ 6	soil	2004-05-26	14:30	2004-05-29
35581	EXC 5W @ 6	soil	2004-05-26	15:15	2004-05-29
35582	EXC 2E @ 3	soil	2004-05-26	16:30	2004-05-29

			BTEX	i i	TPH DRO	TPH GRO	
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO	
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	
35567 - SB1 @ 25-27	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 50.0	<1.00	
35569 - SB2 @ 25-27	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 50.0	4.15	
35571 - SB3 @ 2-3	< 0.0100	< 0.0100	0.187	0.471	29200	49.8	
35572 - SB3 @ 25-27	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 50.0	< 1.00	
35573 - SB4 @ 25-27	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 50.0	<1.00	1
35574 - SB4 @ 28-29	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 50.0	<1.00	2 4
35575 - SB6 @ 25-27	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 50.0	<1.00	
35576 - EXC 2E @ 1					10900	<1.00	
35577 - EXC 5E @ 1					< 50.0	<1.00	
35578 - EXC 5E @ 6					< 50.0	<1.00	
35579 - EXC 5N @ 1	See GM				< 50.0	<1.00	<b>\</b>
35580 - EXC 5N @ 6	VIO SIM			l	< 50.0	<1.00	
35581 - EXC 5W @ 6					< 50.0	<1.00	
35582 - EXC 2E @ 3					<50.0	<1.00	

Report Date: June 1494	8, 2004	Work Order: 4060103 Jamar	Pa	ge Number: 2 of 2 Monument,NM
Sample: 35568 -	SB1 @ 15-17			
Param	Flag	Result	Units	RL
Chloride		568	mg/Kg	1.00
Sample: 35570 -	SB2 @ 15-17			
Param	Flag	Result	Units	RL
Chloride		535	mg/Kg	1.00
Sample: 35577 -	EXC 5E @ 1			
Param	Flag	Result	Units	RL
Chloride		6.27	mg/Kg	1.00
Sample: 35578 -	EXC 5E @ 6			
Param	Flag	Result	Units	RL
Chloride		131	mg/Kg	1.00
Sample: 35579 -	EXC 5N @ 1			
Param	Flag	Result	Units	RL
Chloride		42.4	mg/Kg	1.00
Sample: 35580 -	EXC 5N @ 6			
Param	Flag	Result	Units	RL
Chloride		1210	mg/Kg	1.00
Sample: 35581 -	EXC 5W @ 6			
Param	Flag	Result	$\mathbf{Units}$	RL
Chloride		17.5	mg/Kg	1.00
Sample: 35582 - 1	EXC 2E @ 3			
Param	Flag	Result	Units	RL
Chloride		14.7	mg/Kg	1.00

6701 Aberdeen Avenue, Suite 9 155 McCutcheon, Suite H Lubbock, Texas 79424 800 • 378 • 1296 El Paso, Texas 79932 888 • 588 • 3443 806 • 794 • 1296 915 • 585 • 3443 FAX 806 • 794 • 1298 FAX 915 • 585 • 4944

E-Mail: lab@traceanalysis.com

## **Analytical and Quality Control Report**

John Bunch

Report Date: June 8, 2004

RESPEC

Work Order: 4060103

4775 Indian School Rd. NE Suite 300

Albuquerque, NM 87110

Project Location:

Monument,NM

Project Name: Project Number: Jamar 1494

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
35567	SB1 @ 25-27	soil	2004-05-25	00:00	2004-05-29
35568	SB1 @ 15-17	soil	2004-05-25	00:00	2004-05-29
35569	SB2 @ 25-27	soil	2004-05-25	00:00	2004-05-29
35570	SB2 @ 15-17	soil	2004-05-25	00:00	2004-05-29
35571	SB3 @ 2-3	soil	2004-05-25	00:00	2004-05-29
35572	SB3 @ 25-27	soil	2004-05-25	00:00	2004-05-29
35573	SB4 @ 25-27	soil	2004-05-26	00:00	2004-05-29
35574	SB4 @ 28-29	soil	2004-05-26	00:00	2004-05-29
35575	SB6 @ 25-27	soil	2004-05-26	00:00	2004-05-29
35576	EXC 2E @ 1	soil	2004-05-27	00:00	2004-05-29
35577	EXC 5E @ 1	soil	2004-05-27	00:00	2004-05-29
35578	EXC 5E @ 6	soil	2004-05-25	17:00	2004-05-29
35579	EXC 5N @ 1	soil	2004-05-26	14:00	2004-05-29
35580	EXC 5N @ 6	soil	2004-05-26	14:30	2004-05-29
35581	EXC 5W @ 6	soil	2004-05-26	15:15	2004-05-29
35582	EXC 2E @ 3	soil	2004-05-26	16:30	2004-05-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 25 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

1494

Work Order: 4060103

Jamar

Page Number: 2 of 25 Monument,NM

### **Analytical Report**

Sample: 35567 - SB1 @ 25-27

Analysis: BTEX QC Batch: 10132 Prep Batch: 8978 Analytical Method: S 8021B
Date Analyzed: 2004-06-01
Date Prepared: 2004-06-01

Prep Method: S 5035 Analyzed By: MS Prepared By: MS

RL Parameter Flag Result Units Dilution RLBenzene < 0.0100 mg/Kg 10 0.00100 Toluene < 0.0100 10 0.00100 mg/Kg Ethylbenzene < 0.0100 10 0.00100 mg/Kg Xylene < 0.0100 mg/Kg 10 0.00100

•					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.755	mg/Kg	10	0.100	76	74.4 - 114
4-Bromofluorobenzene (4-BFB)	1	0.764	mg/Kg	10	0.100	76	76.9 - 112

Sample: 35567 - SB1 @ 25-27

Analysis: TPH DRO QC Batch: 10110 Prep Batch: 8957 Analytical Method: Mod. 8015B Date Analyzed: 2004-06-01 Date Prepared: 2004-06-01 Prep Method: N/A Analyzed By: BP Prepared By: DS

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		133	mg/Kg	1	150	88	64.7 - 162

Sample: 35567 - SB1 @ 25-27

Analysis: TPH GRO QC Batch: 10133 Prep Batch: 8978 Analytical Method: S 8015B
Date Analyzed: 2004-06-01
Date Prepared: 2004-06-01

Prep Method: S 5035 Analyzed By: MS Prepared By: MS

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.876	mg/Kg	10	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)		0.910	mg/Kg	10	0.100	91	70 - 130

Sample: 35568 - SB1 @ 15-17

<sup>&</sup>lt;sup>1</sup>Low BFB surrogate recovery due to matrix interference. TFT surrogate recovery shows the method to be in control.

Flor	Date A	rzed: red:	S 8021B 2004-06-01 2004-06-01 Units mg/Kg  S mg/Kg  Units	7	Analy	d By: MS
	Analytical Date Analy Date Prepar RL Result <0.0100 <0.0100 <0.0100	rzed: red:	mg/Kg S 8021B 2004-06-01 2004-06-01 Units mg/Kg mg/Kg mg/Kg	Γ	Prep Me Analyzed Prepared Dilution 10 10	thod: S 503 d By: MS l By: MS R 0.0010 0.0010
	Analytical Date Analy Date Prepar RL Result <0.0100 <0.0100 <0.0100	rzed: red:	mg/Kg S 8021B 2004-06-01 2004-06-01 Units mg/Kg mg/Kg mg/Kg	Ι	Prep Me Analyzed Prepared Dilution 10 10	thod: S 503 d By: MS l By: MS R 0.0010 0.0010
	Analytical Date Analy Date Prepar RL Result <0.0100 <0.0100	rzed: red:	mg/Kg S 8021B 2004-06-01 2004-06-01 Units mg/Kg mg/Kg mg/Kg	Ι	Prep Me Analyzed Prepared Dilution 10 10 10	thod: S 503 d By: MS l By: MS R 0.0010 0.0010
	Date Analy Date Prepar  RL  Result  <0.0100 <0.0100 <0.0100	rzed: red:	2004-06-01 2004-06-01 Units mg/Kg mg/Kg mg/Kg	I	Analyzed Prepared Dilution 10 10	d By: MS 1 By: MS  R 0.0010 0.0010 0.0010
	Date Analy Date Prepar  RL  Result  <0.0100 <0.0100 <0.0100	rzed: red:	2004-06-01 2004-06-01 Units mg/Kg mg/Kg mg/Kg	]	Analyzed Prepared Dilution 10 10	d By: MS 1 By: MS  R 0.0010 0.0010 0.0010
	Date Analy Date Prepar  RL  Result  <0.0100 <0.0100 <0.0100	rzed: red:	2004-06-01 2004-06-01 Units mg/Kg mg/Kg mg/Kg	Γ	Analyzed Prepared Dilution 10 10	d By: MS 1 By: MS  R 0.0010 0.0010 0.0010
	RL Result <0.0100 <0.0100 <0.0100	red:	Units mg/Kg mg/Kg mg/Kg	Γ	Prepared Dilution 10 10 10	R 0.0010 0.0010 0.0010
	Result <0.0100 <0.0100 <0.0100	)	mg/Kg mg/Kg mg/Kg	Γ	10 10 10	0.0010 0.0010 0.0010
	<0.0100 <0.0100 <0.0100	)	mg/Kg mg/Kg mg/Kg	Γ	10 10 10	0.0010 0.0010 0.0010
Flag	<0.0100 <0.0100	) )	mg/Kg mg/Kg		10 10	0.0010 0.0010
Flac	< 0.0100	)	mg/Kg		10	0.0010
Floor						
Floor	<0.0100	)	mg/Kg		10	0.0010
Flac						
Floo				Spike	Percent	Recover
Flag	Result	Units	Dilution	Amount	Recovery	Limits
2	0.695	mg/Kg	10	0.100	70	74.4 - 11
	0.770	mg/Kg	10	0.100	77	76.9 - 11
	Analytic Date And Date Pre	•	: Mod. 8015B 2004-06-01 2004-06-01		Analy	Method: N/. rzed By: BP red By: DS
	RL					
	Result		Units		Dilution	R
	<50.0		mg/Kg		1	50.
Result	Units	I	<b>Dilution</b>	Spike Amount	Percent Recovery	Recover Limits
138	mg/Kg		1	150	92	64.7 - 16
	Result 138	Result <50.0  Result Units	Result <50.0  Result Units I	Result Units <50.0 mg/Kg  Result Units Dilution	Result Units <50.0 mg/Kg  Spike Result Units Dilution Amount	Result     Units     Dilution       <50.0

2004-06-01

2004-06-01

Date Analyzed:

Date Prepared:

Analyzed By:

Prepared By:

MS

MS

QC Batch:

Prep Batch: 8978

10133

<sup>&</sup>lt;sup>2</sup>Low TFT surrogate recovery due to matrix interference. BFB surrogate recovery shows the method to be in control.

1494

Work Order: 4060103

Jamar

Page Number: 4 of 25

Monument,NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.815	mg/Kg	10	0.100	82	70 - 130
4-Bromofluorobenzene (4-BFB)		1.13	mg/Kg	10	0.100	113	70 - 130

Sample: 35570 - SB2 @ 15-17

Analysis:

Chloride (IC)

Analytical Method:

E 300.0

Prep Method:

QC Batch:

10275

Date Analyzed:

2004-06-08

N/A Analyzed By: **JSW** 

RL

1.00

Prep Batch:

9089

Date Prepared:

2004-06-07

Prepared By: **JSW** 

RL

Parameter Chloride

Result 535

Units

mg/Kg

Dilution

100

Flag

Sample: 35571 - SB3 @ 2-3

Analysis:

**BTEX** 

Analytical Method: S 8021B

Prep Method: S 5035

QC Batch: Prep Batch: 9027

10200

Date Analyzed: Date Prepared:

2004-06-02 2004-06-02 Analyzed By: MT

Prepared By: MT

RI

		TCL2				
Parameter	Flag	Result	Units	Dilution	RL	
Benzene	, , , , , , , , , , , , , , , , , , , ,	< 0.0100	mg/Kg	10	0.00100	
Toluene		< 0.0100	mg/Kg	10	0.00100	
Ethylbenzene		0.187	mg/Kg	10	0.00100	
Xylene		0.471	mg/Kg	10	0.00100	

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.756	mg/Kg	10	0.100	76	74.4 - 114
4-Bromofluorobenzene (4-BFB)	3	1.33	mg/Kg	10	0.100	133	76.9 - 112

Sample: 35571 - SB3 @ 2-3

Analysis:

TPH DRO 10110

Analytical Method: Mod. 8015B

Prep Method: N/A Analyzed By: BP

QC Batch: Prep Batch: 8957

Date Analyzed: Date Prepared:

2004-06-01 2004-06-01

Prepared By: DS

RL

Parameter	Flag	Result	Units	Dilution	RL
DRO	···	29200	mg/Kg	100	50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	4	4210	mg/Kg	100	1.50	2807	64.7 - 162

<sup>&</sup>lt;sup>3</sup>High BFB surrogate recovery due to peak interference.

<sup>&</sup>lt;sup>4</sup>Surrogate recovery out out of range due to peak interference. QC show the process within control.

Work Order: 4060103 1494 Jamar

Page Number: 5 of 25 Monument, NM

Sample: 35571 - SB3 @ 2-3

**TPH GRO** Analysis: QC Batch: 10202 Prep Batch: 9027

Analytical Method: S 8015B Date Analyzed: 2004-06-02 Date Prepared: 2004-06-02 Prep Method: S 5035 Analyzed By: MT Prepared By: MT

RL

Parameter	Flag	Result	Units	Dilution	RL
GRO		49.8	mg/Kg	10	0.100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.788	mg/Kg	10	0.100	79	70 - 130
4-Bromofluorobenzene (4-BFB)	5	2.64	mg/Kg	10	0.100	264	70 - 130

Sample: 35572 - SB3 @ 25-27

Analysis: **BTEX** OC Batch: 10204 Prep Batch: 9030

Analytical Method: S 8021B Date Analyzed: 2004-06-03 Date Prepared: 2004-06-03

Prep Method: S 5035 Analyzed By: MT Prepared By: MT

RL Parameter Flag Result Units Dilution RLBenzene < 0.0100 mg/Kg 10 0.00100 Toluene < 0.0100 10 0.00100 mg/Kg Ethylbenzene 10 < 0.0100 mg/Kg 0.00100Xylene < 0.0100 10 0.00100mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	6	0.684	mg/Kg	10	0.100	68	74.4 - 114
4-Bromofluorobenzene (4-BFB)	7	0.684	mg/Kg	10	0.100	68	76.9 - 112

Sample: 35572 - SB3 @ 25-27

Analysis: TPH DRO QC Batch: 10110 Prep Batch: 8957

Analytical Method: Mod. 8015B Date Analyzed: 2004-06-01 Date Prepared: 2004-06-01

Prep Method: N/A Analyzed By: BP Prepared By: DS

RLRLParameter Flag Result Units Dilution DRO < 50.0 50.0 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		145	mg/Kg	1	150	96	64.7 - 162

Sample: 35572 - SB3 @ 25-27

<sup>5</sup>High BFB surrogate recovery due to peak interference.

<sup>&</sup>lt;sup>6</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

<sup>&</sup>lt;sup>7</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

1494

Work Order: 4060103

Jamar

Page Number: 6 of 25 Monument,NM

Analysis: QC Batch:

Prep Batch:

**TPH GRO** 

10206 9030

Analytical Method: S 8015B Date Analyzed:

Date Prepared:

2004-06-03 2004-06-03 Prep Method: S 5035 Analyzed By: MT

Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.717	mg/Kg	10	0.100	72	70 - 130
4-Bromofluorobenzene (4-BFB)		0.726	mg/Kg	10	0.100	73	70 - 130

Sample: 35573 - SB4 @ 25-27

Analysis: QC Batch:

**BTEX** 10132 Prep Batch: 8978

Analytical Method:

S 8021B Date Analyzed: 2004-06-01 Date Prepared: 2004-06-01 Prep Method: S 5035

Analyzed By: MS Prepared By: MS

		RL.			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.0100	mg/Kg	10	0.00100
Toluene		< 0.0100	mg/Kg	10	0.00100
Ethylbenzene		< 0.0100	mg/Kg	10	0.00100
Xylene		< 0.0100	mg/Kg	10	0.00100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	8	0.735	mg/Kg	10	0.100	74	74.4 - 114
4-Bromofluorobenzene (4-BFB)	9	0.757	mg/Kg	10	0.100	76	76.9 - 112

Sample: 35573 - SB4 @ 25-27

**TPH DRO** Analysis: OC Batch: 10110 Prep Batch: 8957

Analytical Method: Date Analyzed: Date Prepared:

Mod. 8015B 2004-06-01 2004-06-01

Prep Method: N/A Analyzed By: BP Prepared By: DS

RL

Parameter	Flag	Result	Units	Dilution	RL
DRO		< 50.0	mg/Kg	1	50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		145	mg/Kg	1	150	96	64.7 - 162

Sample: 35573 - SB4 @ 25-27

Analysis: **TPH GRO** 10133 QC Batch:

Analytical Method: S 8015B Date Analyzed:

2004-06-01

Prep Method: S 5035 Analyzed By: MS

<sup>&</sup>lt;sup>8</sup>Value falls within acceptable range.

<sup>&</sup>lt;sup>9</sup>Low BFB surrogate recovery due to matrix interference. TFT surrogate recovery shows the method to be in control.

1494

Work Order: 4060103

Jamar

Page Number: 7 of 25 Monument,NM

Prep Batch: 8978

Date Prepared:

2004-06-01

Prepared By: MS

P	ĭ
- 1	1.

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.856	mg/Kg	10	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)		0.906	mg/Kg	10	0.100	91	70 - 130

Sample: 35574 - SB4 @ 28-29

Analysis: **BTEX** QC Batch: 10132 Prep Batch: 8978

Analytical Method: S 8021B Date Analyzed: 2004-06-01 2004-06-01 Date Prepared:

Prep Method: S 5035 Analyzed By: MS Prepared By: MS

### RT

		KL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.0100	mg/Kg	10	0.00100
Toluene		< 0.0100	mg/Kg	10	0.00100
Ethylbenzene		< 0.0100	mg/Kg	10	0.00100
Xylene		< 0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.747	mg/Kg	10	0.100	75	74.4 - 114
4-Bromofluorobenzene (4-BFB)		0.774	mg/Kg	10	0.100	77	76.9 - 112

Sample: 35574 - SB4 @ 28-29

Analysis: TPH DRO QC Batch: 10110 Prep Batch: 8957

Analytical Method: Mod. 8015B Date Analyzed: 2004-06-01 Date Prepared: 2004-06-01

Prep Method: N/A Analyzed By: BP Prepared By:

		RL			
Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		141	mg/Kg	1	150	94	64.7 - 162

Sample: 35574 - SB4 @ 28-29

TPH GRO Analysis: QC Batch: 10133 Prep Batch: 8978

Analytical Method: S 8015B Date Analyzed: 2004-06-01 Date Prepared: 2004-06-01

Prep Method: S 5035 Analyzed By: MS Prepared By: MS

continued . . .

Work Order: 4060103 Jamar Page Number: 8 of 25 Monument,NM

#### sample 35574 continued ...

			RL					
Parameter	Flag		Result		Units	Di	lution	RL
			RL					
Parameter	Flag		Result		Units	Di	lution	RL
GRO			<1.00		mg/Kg		10	0.100
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TF	T)		0.870	mg/Kg	10	0.100	87	70 - 130
4-Bromofluorobenze	ene (4-BFB)		0.924	mg/Kg	10	0.100	92	70 - 130

#### Sample: 35575 - SB6 @ 25-27

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	10132	Date Analyzed:	2004-06-01	Analyzed By:	MS
Prep Batch:	8978	Date Prepared:	2004-06-01	Prepared By:	MS

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.0100	mg/Kg	10	0.00100
Toluene		< 0.0100	mg/Kg	10	0.00100
Ethylbenzene		< 0.0100	mg/Kg	10	0.00100
Xylene		< 0.0100	mg/Kg	10	0.00100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	10	0.718	mg/Kg	10	0.100	72	74.4 - 114
4-Bromofluorobenzene (4-BFB)	11	0.729	mg/Kg	10	0.100	73	76.9 - 112

### Sample: 35575 - SB6 @ 25-27

Analysis: QC Batch: Prep Batch:	TPH DRO 10175 9008		Analytical Method: Date Analyzed: Date Prepared:	Mod. 8015B 2004-06-02 2004-06-02			Prep Method: Analyzed By: Prepared By:	BP
Parameter		Flag	RL Result	Units		Dilution		RL
DRO			<50.0	mg/Kg		1		50.0
					Spike	Percer	nt Rec	overv

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		135	mg/Kg	1	150	90	64.7 - 162

Sample: 35575 - SB6 @ 25-27

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035

<sup>10</sup>Low TFT surrogate recovery due to matrix interference. ICV/CCV surrogate recovery shows the method to be in control.

<sup>11</sup> Low BFB surrogate recovery due to matrix interference. ICV/CCV surrogate recovery shows the method to be in control.

Report Date: June 8, 2004	Work Order: 4060103
1494	Jamar

Page Number: 9 of 25 Monument,NM

		Date Ana	lyzed:	2004-06-01		Analyzed	By: MS
		Date Prep	ared:	2004-06-01		Prepared 1	By: MS
		RL					
Flag		Result		Units	Di	lution	RL
		<1.00		mg/Kg		10	0.100
					Spike	Percent	Recovery
	Flag	Result	Units	Dilution	Amount	Recovery	Limits
)		0.838	mg/Kg	10	0.100	84	70 - 130
e (4 <b>-</b> BFB)		0.874	mg/Kg	10	0.100	87	70 - 130
	Flag ) e (4-BFB)	Flag	Date Prep RL Result <1.00  Flag Result  0.838	Flag Result <a href="#">&lt;1.00</a> Flag Result Units O.838 mg/Kg	Date Prepared: 2004-06-01   RL   Result   Units   Variation   Va	Date Prepared: 2004-06-01   RL   Result   Units   Di   C   C   C   C   C   C   C   C   C	Date Prepared: 2004-06-01   Prepared I

Sample: 35576 - EXC 2E @ 1

Comments	Di	D le	Y 1 14	Dil dies	Spike	Percent	Recovery
DRO			10900	mg/Kg		100	50.0
Parameter	Fla	g	Result	Units		Dilution	RL
			RL				

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	12	2770	mg/Kg	100	1.50	1847	64.7 - 162

Sample: 35576 - EXC 2E @ 1

Analysis: QC Batch: Prep Batch:	10206	Analytical Method: Date Analyzed: Date Prepared:	S 8015B 2004-06-03 2004-06-03	Prep Method: Analyzed By: Prepared By:	MT
		RL			

Parameter	Flag	Result	Units	Di	lution	RL
GRO		<1.00	mg/Kg		10	0.100
				Snike	Percent	Recovery

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	1145	0.714	mg/Kg	10	0.100	71	70 - 130
4-Bromofluorobenzene (4-BFB)		0.787	mg/Kg	10	0.100	79	70 - 130

Sample: 35577 - EXC 5E @ 1

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10275	Date Analyzed:	2004-06-08	Analyzed By:	JSW
Prep Batch:	9089	Date Prepared:	2004-06-07	Prepared By:	JSW

continued ...

<sup>&</sup>lt;sup>12</sup>Surrogate recovery out out of range due to peak interference. QC show the process within control.

Work Order: 4060103 Jamar Page Number: 10 of 25 Monument,NM

sample 35577 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
-		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		6.27	mg/Kg	5	1.00

Sample: 35577 - EXC 5E @ 1

Analysis: TPH DRO QC Batch: 10110 Prep Batch: 8957 Analytical Method: Mod. 8015B Date Analyzed: 2004-06-01 Date Prepared: 2004-06-01 Prep Method: N/A Analyzed By: BP Prepared By: DS

ParameterFlagResultUnitsDilutionRLDRO<50.0</td>mg/Kg150.0Spike Percent Recovery

Surrogate Flag Result Units Dilution Amount Recovery Limits n-Triacontane 146 mg/Kg 1 150 97 64.7 - 162

Sample: 35577 - EXC 5E @ 1

Analysis: TPH GRO QC Batch: 10133 Prep Batch: 8978 Analytical Method: S 8015B
Date Analyzed: 2004-06-01
Date Prepared: 2004-06-01

Prep Method: S 5035 Analyzed By: MS Prepared By: MS

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.847	mg/Kg	10	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)		0.904	mg/Kg	10	0.100	90	70 - 130

Sample: 35578 - EXC 5E @ 6

Analysis: Chloride (IC)
QC Batch: 10275
Prep Batch: 9089

Analytical Method: E 300.0
Date Analyzed: 2004-06-08
Date Prepared: 2004-06-07

Prep Method: N/A
Analyzed By: JSW
Prepared By: JSW

 RL

 Parameter
 Flag
 Result
 Units
 Dilution
 RL

 Chloride
 131
 mg/Kg
 10
 1.00

Sample: 35578 - EXC 5E @ 6

Work Order: 4060103 Jamar

Page Number: 11 of 25 Monument,NM

Analysis: QC Batch:

TPH DRO 10110 Prep Batch: 8957

Analytical Method: Date Analyzed:

Date Prepared:

Mod. 8015B 2004-06-01 2004-06-01

Prep Method: N/A Analyzed By: BPPrepared By: DS

RL

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		145	mg/Kg	1	150	96	64.7 - 162

Sample: 35578 - EXC 5E @ 6

Analysis: QC Batch:

TPH GRO 10133 Prep Batch: 8978

Analytical Method:

Date Analyzed:

Date Prepared:

S 8015B 2004-06-01 2004-06-01 Prep Method: S 5035 Analyzed By: MS

MS

Prepared By:

RL

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.915	mg/Kg	10	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)		0.922	mg/Kg	10	0.100	92	70 - 130

Sample: 35579 - EXC 5N @ 1

Analysis: QC Batch:

Chloride (IC) 10275 Prep Batch: 9089

Analytical Method: Date Analyzed: Date Prepared:

E 300.0 2004-06-08 2004-06-07 Prep Method: N/A Analyzed By: JSW

JSW Prepared By:

RLParameter Result Dilution RLFlag Units Chloride 42.4 1.00 mg/Kg 10

Sample: 35579 - EXC 5N @ 1

Analysis: QC Batch:

TPH DRO 10110 Prep Batch: 8957

Analytical Method: Date Analyzed:

Mod. 8015B 2004-06-01

Prep Method: N/A BP

Date Prepared: 2004-06-01 Analyzed By: Prepared By: DS

RLParameter Flag Dilution RLResult Units DRO < 50.0 50.0 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		145	mg/Kg	1	150	96	64.7 - 162

Work Order: 4060103 Jamar

Page Number: 12 of 25 Monument,NM

Sample: 35579 - EXC 5N @ 1

Analysis: **TPH GRO** QC Batch: 10133 Prep Batch: 8978

Analytical Method: S 8015B Date Analyzed:

2004-06-01

2004-06-01

Prep Method: S 5035 Analyzed By: MS

Prepared By: MS

RL

Date Prepared:

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.920	mg/Kg	10	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)		0.949	mg/Kg	10	0.100	95	70 - 130

Sample: 35580 - EXC 5N @ 6

Analysis: Chloride (IC) QC Batch: 10275 Prep Batch: 9089

Analytical Method: E 300.0 2004-06-08 Date Analyzed: Date Prepared: 2004-06-07 Prep Method: N/A JSW Analyzed By: Prepared By: JSW

RL

1.00

RL

50.0

RL Parameter Flag Result Chloride 1210

Units Dilution mg/Kg 100

Sample: 35580 - EXC 5N @ 6

Analysis: **TPH DRO** QC Batch: 10110 8957 Prep Batch:

DRO

Analytical Method: Mod. 8015B 2004-06-01 Date Analyzed: Date Prepared: 2004-06-01

Prep Method: N/A BP Analyzed By: DS Prepared By:

Parameter Flag

RL Result Units Dilution <50.0 mg/Kg

Spike Percent Recovery Units Dilution Surrogate Flag Result Amount Recovery Limits 141 150 94 64.7 - 162 n-Triacontane mg/Kg

Sample: 35580 - EXC 5N @ 6

Analysis: TPH GRO QC Batch: 10133 Prep Batch: 8978

Analytical Method: S 8015B Date Analyzed: 2004-06-01 Date Prepared: 2004-06-01

Prep Method: S 5035 Analyzed By: MS Prepared By: MS

RL Parameter Flag Result Units Dilution RL <1.00 GRO mg/Kg 10 0.100

Work Order: 4060103

Jamar

Page Number: 13 of 25 Monument, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.901	mg/Kg	10	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)		0.935	mg/Kg	10	0.100	94	70 - 130

Sample: 35581 - EXC 5W @ 6

Analysis: Chloride (IC)

QC Batch: Prep Batch:

10275 9089

Analytical Method: Date Analyzed:

E 300.0 2004-06-08 Date Prepared: 2004-06-07 Prep Method: Analyzed By:

Prepared By:

JSW JSW

N/A

RL

Parameter Result Units Dilution RLFlag Chloride 17.5 1.00 mg/Kg 10

Sample: 35581 - EXC 5W @ 6

Analysis: QC Batch:

TPH DRO 10110 Prep Batch: 8957

Analytical Method:

Mod. 8015B Date Analyzed: 2004-06-01 Date Prepared: 2004-06-01

Prep Method: N/A BP

Analyzed By: Prepared By: DS

RL

Result Dilution RLParameter Flag Units <50.0 DRO mg/Kg 50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		145	mg/Kg	1	150	97	64.7 - 162

Sample: 35581 - EXC 5W @ 6

Analysis: OC Batch:

**TPH GRO** 10133 Prep Batch: 8978

Analytical Method: Date Analyzed:

Date Prepared:

S 8015B 2004-06-01 2004-06-01 Prep Method: S 5035 Analyzed By: MS

Prepared By: MS

RL

Parameter Result Dilution RLFlag Units **GRO** <1.00 10 0.100 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.896	mg/Kg	10	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)		0.914	mg/Kg	10	0.100	91	70 - 130

Sample: 35582 - EXC 2E @ 3

Analysis:

Chloride (IC)

QC Batch: 10275 Prep Batch: 9089

Analytical Method:

E 300.0 2004-06-08 Prep Method: N/A Analyzed By: JSW

**JSW** 

Date Analyzed: Date Prepared: 2004-06-07 Prepared By: Report Date: June 8, 2004

1494

Work Order: 4060103

Jamar

Page Number: 14 of 25

Monument, NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		14.7	mg/Kg	5	1.00

Sample: 35582 - EXC 2E @ 3

Analysis: QC Batch: Prep Batch:

TPH DRO 10110 8957

Analytical Method: Date Analyzed:

Date Prepared:

RL

Mod. 8015B 2004-06-01

2004-06-01

Prep Method: N/A Analyzed By: BP Prepared By: DS

Parameter Flag Result Units Dilution RLDRO < 50.0 mg/Kg 50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		148	mg/Kg	1	150	99	64.7 - 162

Sample: 35582 - EXC 2E @ 3

Analysis: **TPH GRO** QC Batch: 10133

GRO

Prep Batch: 8978

Analytical Method: S 8015B Date Analyzed: 2004-06-01 2004-06-01 Date Prepared:

Prep Method: S 5035 Analyzed By: MS Prepared By: MS

Parameter Flag

RLResult Dilution RLUnits 0.100 <1.00 mg/Kg 10

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.890	mg/Kg	10	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)		0.910	mg/Kg	10	0.100	91	70 - 130

Method Blank (1) QC Batch: 10110

Parameter Flag Result Units RL DRO < 50.0 mg/Kg 50

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		139	mg/Kg	1	150	93	64.7 - 162

Method Blank (1) QC Batch: 10132

Parameter	Flag	Result	Units	RL
Benzene		< 0.0100	mg/Kg	0.001
Toluene		< 0.0100	mg/Kg	0.001

Work Order: 4060103

Jamar

Page Number: 15 of 25 Monument,NM

70 - 130

70 - 130

method blank continued ...

Trifluorotoluene (TFT)

4-Bromofluorobenzene (4-BFB)

Parameter	Flag		Result		Units		RL
Ethylbenzene			< 0.0100			mg/Kg	
Xylene		< 0.0100			mg/Kg		0.001
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits

mg/Kg

mg/Kg

10

10

0.100

0.100

84

66

0.842

0.658

13

QC Batch: 10133 Method Blank (1)

Parameter	Flag	Result	Units	RL
GRO		<1.00	mg/Kg	0.1

Summa and a	F1	n14	T T 14	Dilenia a	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.987	mg/Kg	10	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)		0.794	mg/Kg	10	0.100	79	70 - 130

Method Blank (1) QC Batch: 10175

Parameter	Flag	Result	Units	RL
DRO		< 50.0	mg/Kg	50

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		138	mg/Kg	1	150	92	64.7 - 162

Method Blank (1) QC Batch: 10200

Parameter	Flag	Result	Units	RL
Benzene		< 0.0100	mg/Kg	0.001
Toluene		< 0.0100	mg/Kg	0.001
Ethylbenzene		< 0.0100	mg/Kg	0.001
Xylene		< 0.0100	mg/Kg	0.001

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.980	mg/Kg	10	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.809	mg/Kg	10	0.100	81	70 - 130

Method Blank (1) QC Batch: 10202

 $<sup>^{13}</sup>$ Low BFB surrogate recovery due to prep. TFT surrogate recovery shows the method to be in control.

1494

Work Order: 4060103

Jamar

Page Number: 16 of 25 Monument,NM

Parameter	Flag		Result		Units	i	RL	
GRO	THE TOTAL CO.		<1.00		mg/K	g	0.1	
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotoluene (TFT)		1.02	mg/Kg	10	0.100	102	70 - 130	
4-Bromofluorobenzene (4-BFB)		0.851	mg/Kg	10	0.100	85	70 - 130	

Method Blank (1) QC Batch: 10204

Parameter	Flag	Result	Units	RL
Benzene		< 0.0100	mg/Kg	0.001
Toluene		< 0.0100	mg/Kg	0.001
Ethylbenzene		< 0.0100	mg/Kg	0.001
Xylene		< 0.0100	mg/Kg	0.001

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.865	mg/Kg	10	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)		0.709	mg/Kg	10	0.100	71	70 - 130

Method Blank (1) QC Batch: 10206

Parameter	Flag	Result	Units	RL
GRO		1.68	mg/Kg	0.1

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.912	mg/Kg	10	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)		0.757	mg/Kg	10	0.100	76	70 - 130

Matrix Blank (1) QC Batch: 10275

Parameter	Flag	Result	Units	RL
Chloride		40.9	mg/Kg	1

Laboratory Control Spike (LCS-1) QC Batch: 10110

Davassa	LCS	LCSD	¥ T - '4-	D.I	Spike	Matrix	<b>D</b>	DDD	Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
DRO	238	236	mg/Kg	1	250	<12.0	95	1	64.2 - 138	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: June 8, 2004

1494

Work Order: 4060103

Jamar

Page Number: 17 of 25 Monument,NM

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	137	136	mg/Kg	1	150	91	91	64.7 - 162

Laboratory Control Spike (LCS-1) QC Batch: 10132

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Benzene	0.881	0.880	mg/Kg	10	0.100	< 0.0333	88	0	70 - 130	20
Toluene	0.887	0.887	mg/Kg	10	0.100	< 0.0353	89	0	70 - 130	20
Ethylbenzene	0.878	0.881	mg/Kg	10	0.100	< 0.0339	88	0	70 - 130	20
Xylene	2.68	2.69	mg/Kg	10	0.300	< 0.103	89	0	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.896	0.914	mg/Kg	10	0.100	90	91	70 - 130
4-Bromofluorobenzene (4-BFB)	0.868	0.881	mg/Kg	10	0.100	87	88	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 10133

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	1.08	1.07	mg/Kg	1	1.00	< 0.0381	108	1	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.103	0.104	mg/Kg	1	0.100	103	104	70 - 130
4-Bromofluorobenzene (4-BFB)	0.102	0.103	mg/Kg	1	0.100	102	103	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 10175

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
DRO	237	242	mg/Kg	1	250	<12.0	95	2	64.2 - 138	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	141	138	mg/Kg	1	150	94	92	64.7 - 162

Laboratory Control Spike (LCS-1) QC Batch: 10200

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount .	Result	Rec.	RPD	Limit	Limit
Benzene	1.01	1.02	mg/Kg	10	0.100	< 0.0333	101	1	70 - 130	20
Toluene	1.02	1.02	mg/Kg	10	0.100	< 0.0353	102	0	70 - 130	20

Work Order: 4060103

Jamar

Page Number: 18 of 25 Monument,NM

control	spikes	continued	
COMMO	Spires	communica	

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Ethylbenzene	1.05	1.04	mg/Kg	10	0.100	< 0.0339	105	1	70 - 130	20
Xylene	3.17	3.17	mg/Kg	10	0.300	< 0.103	106	0	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.980	0.991	mg/Kg	10	0.100	98	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.978	0.985	mg/Kg	10	0.100	98	98	70 - 130

### Laboratory Control Spike (LCS-1) QC Batch: 10202

Daram	LCS Pagult	LCSD Begult	Linita	Dil.	Spike	Matrix	Daa	RPD	Rec. Limit	RPD Limit
Param GRO	Result 9.98	Result 11.3	Units mg/Kg	10	Amount 1.00	Result <0.381	Rec. 100	12	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.01	1.01	mg/Kg	10	0.100	101	101	70 - 130
4-Bromofluorobenzene (4-BFB)	1.01	1.01	mg/Kg	10	0.100	101	101	70 - 130

### Laboratory Control Spike (LCS-1) QC Batch: 10204

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Benzene	0.976	0.996	mg/Kg	10	0.100	< 0.0333	98	2	70 - 130	20
Toluene	0.979	1.00	mg/Kg	10	0.100	< 0.0353	98	2	70 - 130	20
Ethylbenzene	0.996	1.02	mg/Kg	10	0.100	< 0.0339	100	2	70 - 130	20
Xylene	3.00	3.05	mg/Kg	10	0.300	< 0.103	100	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.870	0.889	mg/Kg	10	0.100	87	89	70 - 130
4-Bromofluorobenzene (4-BFB)	0.844	0.866	mg/Kg	10	0.100	84	86	70 - 130

### Laboratory Control Spike (LCS-1) QC Batch: 10206

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Đil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	9.27	9.50	mg/Kg	10	1.00	< 0.381	93	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.952	0.951	mg/Kg	10	0.100	95	95	70 - 130

Report Date: June 8, 2004

1494

Work Order: 4060103

Jamar

Page Number: 19 of 25 Monument,NM

control spikes continued ...

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
4-Bromofluorobenzene (4-BFB)	0.878	0.869	mg/Kg	10	0.100	88	87	70 - 130

Laboratory Control Spike (LCS-1) Q

QC Batch: 10275

		LCS	LCSD			Spike	Matrix			Rec.	RPD
Param		Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	1415	51.5	51.4	mg/Kg	1	12.5	40.9	85	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 10110

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
DRO	240	222	mg/Kg	1	250	<12.0	96	8	62.4 - 128	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	139	134	mg/Kg	1	150	93	90	64.7 - 162

Matrix Spike (MS-1) QC Batch: 10132

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Benzene	0.739	0.772	mg/Kg	10	0.100	< 0.0333	74	4	70 - 130	20
Toluene	0.767	0.803	mg/Kg	10	0.100	< 0.0353	77	4	70 - 130	20
Ethylbenzene	0.784	0.813	mg/Kg	10	0.100	< 0.0339	78	4	70 - 130	20
Xylene	2.39	2.51	mg/Kg	10	0.300	< 0.103	80	5	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.758	0.822	mg/Kg	10	0.1	76	82	70 - 130
4-Bromofluorobenzene (4-BFB)	0.812	0.847	mg/Kg	10	0.1	81	85	70 - 130

Matrix Spike (MS-1) QC Batch: 10133

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	7.95	8.36	mg/Kg	10	1.00	< 0.381	80	5	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

<sup>&</sup>lt;sup>14</sup>Contamination in blank soil. To high in chloride. MS%EA, ICV, CCV within control limits.

<sup>15</sup> Contamination in blank soil. To high in chloride. MS%EA, ICV, CCV within control limits.

Report Date: June 8, 2004

1494

Work Order: 4060103

Jamar

Page Number: 20 of 25 Monument,NM

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.818	0.829	mg/Kg	10	0.1	82	83	70 - 130
4-Bromofluorobenzene (4-BFB)	0.983	0.984	mg/Kg	10	0.1	98	98	70 - 130

Matrix Spike (MS-1) QC Batch: 10175

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
DRO	204	210	mg/Kg	1	250	<12.0	82	3	62.4 - 128	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	133	129	mg/Kg	1	150	88	86	64.7 - 162

Matrix Spike (MS-1) QC Batch: 10200

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Benzene	0.875	0.882	mg/Kg	10	0.100	< 0.0333	88	1	70 - 130	20
Toluene	0.912	0.921	mg/Kg	10	0.100	< 0.0353	91	1	70 - 130	20
Ethylbenzene	0.968	0.982	mg/Kg	10	0.100	< 0.0339	97	1	70 - 130	20
Xylene	2.94	2.98	mg/Kg	10	0.300	< 0.103	98	1	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.881	0.889	mg/Kg	10	0.1	88	89	70 - 130
4-Bromofluorobenzene (4-BFB)	0.916	0.928	mg/Kg	10	0.1	92	93	70 - 130

Matrix Spike (MS-1) QC Batch: 10202

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	8.81	8.27	mg/K.g	10	1.00	< 0.381	88	6	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.854	0.840	mg/Kg	10	0.1	85	84	70 - 130
4-Bromofluorobenzene (4-BFB)	1.00	0.986	mg/Kg	10	0.1	100	99	70 - 130

Matrix Spike (MS-1) QC Batch: 10204

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Benzene	0.862	0.840	mg/Kg	10	0.100	< 0.0333	86	2	70 - 130	20

1494

Work Order: 4060103

Jamar

Page Number: 21 of 25 Monument,NM

matrix spikes continued ...

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Toluene	0.894	0.874	mg/Kg	10	0.100	< 0.0353	89	2	70 - 130	20
Ethylbenzene	0.940	0.922	mg/Kg	10	0.100	< 0.0339	94	2	70 - 130	20
Xylene	2.86	2.80	mg/Kg	10	0.300	< 0.103	95	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.780	0.762	mg/Kg	10	0.1	78	76	70 - 130
4-Bromofluorobenzene (4-BFB)	0.810	0.806	mg/Kg	10	0.1	81	81	70 - 130

Matrix Spike (MS-1) QC Batch: 10206

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	7.22	7.67	mg/Kg	10	1.00	< 0.381	72	6	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.663	0.693	mg/Kg	10	0.1	66	69	70 - 130
4-Bromofluorobenzene (4-BFB)	0.790	0.809	mg/Kg	10	0.1	<b>7</b> 9	81	70 - 130

Matrix Spike (MS-1) QC Batch: 10275

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	2370	2370	mg/Kg	100	12.5	1210	93	0	69.4 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1) QC Batch: 10110

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	235	94	64.2 - 138	2004-06-01

Standard (CCV-1) QC Batch: 10110

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	240	96	64.2 - 138	2004-06-01

Standard (CCV-2) QC Batch: 10110

<sup>&</sup>lt;sup>16</sup>TFT surrogate recovery outside normal limits in MS/MSD. Other analyte recoveries show the method to be in control.

<sup>&</sup>lt;sup>17</sup>TFT surrogate recovery outside normal limits in MS/MSD. Other analyte recoveries show the method to be in control.

1494

Work Order: 4060103

Jamar

Page Number: 22 of 25

Mon	umen	t N	М
141011	milion.		, ,

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	241	96	64.2 - 138	2004-06-01

Standard (ICV-1) QC Batch: 10132

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene	18	mg/Kg	0.100	0.0837	84	85 - 115	2004-06-01
Toluene		mg/Kg	0.100	0.0846	85	85 - 115	2004-06-01
Ethylbenzene	19	mg/Kg	0.100	0.0839	84	85 - 115	2004-06-01
Xylene		mg/Kg	0.300	0.256	85	85 - 115	2004-06-01

Standard (CCV-1) QC Batch: 10132

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0864	86	85 - 115	2004-06-01
Toluene		mg/Kg	0.100	0.0866	87	85 - 115	2004-06-01
Ethylbenzene		mg/Kg	0.100	0.0859	86	85 - 115	2004-06-01
Xylene		mg/Kg	0.300	0.261	87	. 85 - 115	2004-06-01

Standard (CCV-2) QC Batch: 10132

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0907	91	85 - 115	2004-06-01
Toluene		mg/Kg	0.100	0.0912	91	85 - 115	2004-06-01
Ethylbenzene		mg/Kg	0.100	0.0899	90	85 - 115	2004-06-01
Xylene		mg/Kg	0.300	0.275	92	85 - 115	2004-06-01

Standard (ICV-1) QC Batch: 10133

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	1.02	102	85 - 115	2004-06-01

Standard (CCV-1) QC Batch: 10133

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	0.975	97	85 - 115	2004-06-01

 $^{18}\mbox{Benzene}$  outside normal limits in ICV. Average of ICV components fall within acceptable range.

 $<sup>^{19}</sup>$ Ethylbenzene outside normal limits in ICV. Average of ICV components fall within acceptable range.

Work Order: 4060103

Jamar

Page Number: 23 of 25 Monument,NM

Standard (CCV-2) QC Batch: 10133

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	0.994	99	85 - 115	2004-06-01

Standard (ICV-1) QC Batch: 10175

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	229	92	64.2 - 138	2004-06-02

Standard (CCV-1) QC Batch: 10175

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	232	93	64.2 - 138	2004-06-02

Standard (ICV-1) QC Batch: 10200

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.100	100	85 - 115	2004-06-02
Toluene		mg/Kg	0.100	0.102	102	85 - 115	2004-06-02
Ethylbenzene		mg/Kg	0.100	0.105	105	85 - 115	2004-06-02
Xylene		mg/Kg	0.300	0.318	106	85 - 115	2004-06-02

Standard (CCV-1) QC Batch: 10200

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0975	98	85 - 115	2004-06-02
Toluene		mg/Kg	0.100	0.0987	99	85 - 115	2004-06-02
Ethylbenzene		mg/Kg	0.100	0.0992	99	85 - 115	2004-06-02
Xylene		mg/Kg	0.300	0.302	101	85 - 115	2004-06-02

Standard (ICV-1) QC Batch: 10202

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	1.14	114	85 - 115	2004-06-02

Standard (CCV-1) QC Batch: 10202

Work Order: 4060103

Page Number: 24 of 25 Monument,NM

1494	, 2004	WO	Jamar	U3	Page	Monument,NM
Param Flag		CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO	mg/L	1.00	1.11	111	85 - 115	2004-06-02
Standard (ICV-1)	QC Batch: 10204					
		CCVs	CCVs	CCVs	Percent	
		True	Found	Percent	Recovery	Date
Param	Flag Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene	mg/K	g 0.100	0.0973	97	85 - 115	2004-06-03
Toluene	mg/K		0.0980	98	85 - 115	2004-06-03
Ethylbenzene	mg/K	g 0.100	0.100	100	85 - 115	2004-06-03
Xylene	mg/K	_	0.302	100	85 - 115	2004-06-03
Standard (CCV-1)	QC Batch: 10204					
		CCVs	CCVs	CCVs	Percent	
		True	Found	Percent	Recovery	Date
Param	Flag Units		Conc.	Recovery	Limits	Analyzed
Benzene	mg/K		0.0978	98	85 - 115	2004-06-03
Toluene	mg/K	~	0.0998	100	85 - 115	2004-06-03
Ethylbenzene	mg/K	_	0.102	102	85 - 115	2004-06-03
Xylene	mg/K		0.309	103	85 - 115	2004-06-03
Standard (ICV-1)	QC Batch: 10206					
		CCVs	CCVs	CCVs	Percent	
		True	Found	Percent	Recovery	Date
Param Flag		Conc.	Conc.	Recovery	Limits	Analyzed
GRO	mg/L	1.00	1.11	111	85 - 115	2004-06-03
Standard (CCV-1)	QC Batch: 10206					
		CCVs	CCVs	CCVs	Percent	
		True	Found	Percent	Recovery	Date
Param Flag	y Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO	mg/L	1.00	1.12	112	85 - 115	2004-06-03
Standard (ICV-1)	QC Batch: 10275					

CCVs

True

Conc.

12.5

CCVs

Found

Conc.

11.7

CCVs

Percent

Recovery

94

Percent

Recovery

Limits

90 - 110

Date

Analyzed

2004-06-08

Standard (CCV-1) QC Batch: 10275

Flag

Param

Chloride

Units

mg/Kg

Report Date: June 8, 2004 1494

Work Order: 4060103 Jamar Page Number: 25 of 25 Monument,NM

CCVs CCVs CCVs Percent True Found Percent Recovery Date Param Flag Units Conc. Conc. Recovery Limits Analyzed Chloride mg/Kg 12.5 11.6 93 90 - 110 2004-06-08

Turn Around Time if different from standard CHAIN-OF-CUSTODY AND ANALYSIS REQUEST Star on Sample Check If Special Reporting Limits Are Needed 406010 Circle or Specify Method No.) **ANALYSIS REQUEST** Semi. Vol. 8270C/625 REMARKS LAB Order ID # TCLP Pesticides N / Y TCLP Metals Ag As Ba Cd Cr Pb Se Hg LAB USE N (Y ONLY Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 Carrier # UP Log-in Review Headspace Intact Temp BTEX 8021B/602 38TN 3:10 SAMPLING 17.01/plc25 **TIME** 155 McCutcheon, Suite H El Paso, Texas 79932 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 0h00 -372 **BTA**0 Phone #: 505 228-266 ンハロノ Time: PRESERVATIVE NONE Project Name: A WW METHOD CE 229,04 HOBN B Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. Sampler Signature: °OS<sup>2</sup>H Date: Date: TraceAnalysis, Inc. <sup>€</sup>ONH ORIGINAL COPY HCI Fax #: MATRIX SLUDGE Received at Laboratory by: AIA TIOS **A**BTAW # 200 Received by: 405 Received by 23 405 48 72 InuomA\amuloV CONTAINERS  $\leq$ SE Time: Burch (Street, City, Zip) (Street, City, Zip) MOMUMENT FIELD CODE 2 77-7641 Date: Company Name: Respec 6701 Aberdeen Avenue, Ste. Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 Lubbock, Texas 79424 (If different from above) Contact Person: Address: Project Location: Mes Relinguished by: Relinquished by Relinquished by (LAB USE) **\*8** Project #: 556



6701 Aberdeen Avenue. Ste. 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon, Suite H El Paso, Texas 79932 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 46 L 010 3

			р.	andar	ste mon	i fnete	e if diff	miT bnu	oıA nıuT	-													
	_	CNPILICS		•	•	2	٠		, 2					-		fing	n						
	_							Hq ,28	BOD, TS	_		2	_	7						×		Report	timits Are Needed
ST								1808 se	Pesticide											1/2		ecial F	1000
OC.	ethoc					929/00			GC/MS 8	1				+	+-					d.	9	S H S	1
S RE	≥ ~ Gir								CC/WS	1 "					1					<u>i</u> ÿ	2	Chec	,
ANALYSIS REQUEST	(Circle or specify Method No.)							esticides	RCI 108					+	-					REMARKS			
NAL	- de o							sloV ime												<u> </u>	1 1		
<b>∢</b>	<u> </u>			ந்ப :	96 UT	בם בו	EG 84	etals Ag	M 4JOT TCLP Vo					+	-		_	_	-		z	å	
		7.002/	8010					v gA alste						$\int$					<u> </u>	LAB USE ONLY	Z X		•
^	~ 	all a	0	V S	3	٠, - ٩	,		728 HA9		٠.	V	• >		× ,					N N		2	
V		_		0)	لـــــ	ref		021B/60 01XT\1.0	8 X3T8 314 H9T	X	× × ×	\ \ \ \	W.	$\stackrel{\sim}{\downarrow}$	X				+-	3	Intact Headspace	ا ا	
		Ţ				,			3 BTM			~	~ ~	Ţ							Intact	Temp	
							ING.		<b>3MIT</b>	500	2:00	2:30	3.6	£0:4	4.82								
							SAMPLING		этаа	2/12	2/21	=	*		=	-							
3	7	1			1		\ \ \	}	NONE		-					<b> </b>			-	iii	ا	) iii	
1	5K, NY	\$			2		PRESERVATIVE MFTHOD		ICE		<u> </u>			1						Time:	Time:	Time:	
5-268-1	کما	اد	İ		7		ESERVAT METHOD		ИаОН											]			
77	3	1	1			ate			OS <sup>2</sup> H	-				$\dashv$	-				-	Date:	Date:	Date:	
3:	6-5	1			Project Name:	Sampler Signatur		ļ	HCI													.	
Phone #:	$\mathcal{L}_{\mathcal{X}}^{\mathrm{ax}}$	}			Project	DE P	V	35	ernac		_			-				-				<u>خ</u>	
_	<b></b>						MATRIX		AIA					7								ory b	1
							_		ROIL		/	$\angle$		4						]		borat	1
	Ω						<u></u>		IBTAW					+	-					<u>.</u> ;	by:	at La	ξ >.
	# 320	· 				-		BNIATI ———————————————————————————————————						+					<u> </u>	Received by:	Received by:	Received at Laboratory by:	(
	ME					7								1									_
ľ	Z	$\cdot$		Q	)·	,														Time:	i je	Time:	
9	1007	)    -	اد	3		7	•	FIELD CODE				2		1	3					7			
'F	記が	Sarch	) :	N.W.	7.7	20		FIELI		7 7 m =	May	Ma	NO 6		16,	)				Date:	Date:	Date:	
X	Street, City		'	(If different from above)	Hdd	Project Location:				EXC 25	SOS	EKC SMA	BU SWB	19K-1	GKC 2 E					2	}		
Company Name:	<u> </u>	Contact Person:		E Log	I		<u> </u>				) [EX				1		_		-	Relinquished by:	Relinquished by:	Relinquished by:	
pany	See	12/2	Invoice to	ferent	Project #:	st Lo		**	(LAB USE)	35578	29	80	8	4	3				-	quish	quish	quish	
E O	Age of the second secon	Son ,	Į.	<del>-</del>	Proje	Proje		ב	<u>آه</u>	35				3						Relia Filan	Relin	Relin	

Submittal of samples constitutes agreement to Terms/and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

Carrier #

Report Date: May 5, 2004

Work Order: 4042615

# **Summary Report**

John Bunch

RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location: Monument, NM

Project Name:

**JAMAR** 

			$\operatorname{Date}$	$\operatorname{Time}$	$\operatorname{Date}$
Sample	Description	Matrix	Taken	Taken	Received
32595	W-01	water	2004-04-23	00:00	2004-04-26
32596	W-03	water	2004-04-23	00:00	2004-04-26

	BTEX							
	Benzene	Toluene	Ethylbenzene	Xylene				
Sample - Field Code	(mg/L)	(mg/L)	(mg/L)	(mg/L)				
32595 - W-01	< 0.00500	< 0.00500	< 0.00500	< 0.00500				
32596 - W-03	< 0.00500	< 0.00500	< 0.00500	< 0.00500				

Sample: 32595 - W-01

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		120	mg/L as $CaCo3$	4.00
Total Alkalinity		120	mg/L as CaCo3	4.00
Dissolved Calcium		365	$\mathrm{mg/L}$	0.500
Dissolved Potassium		32.2	$\mathrm{mg/L}$	0.500
Dissolved Magnesium		98.5	$\mathrm{mg/L}$	0.500
Dissolved Sodium		423	${ m mg/L}$	0.500
Chloride		1610	${ m mg/L}$	0.500
Fluoride		< 3.00	$\mathrm{mg/L}$	0.200
Sulfate		41.7	$\mathrm{mg/L}$	0.500
Nitrate-N	1	< 3.00	$\mathrm{mg/L}$	0.200
Naphthalene		0.000390	$\mathrm{mg/L}$	0.200
Acenaphthylene		< 0.000200	$\mathrm{mg/L}$	0.200
Acenaphthene		< 0.000200	$\mathrm{mg/L}$	0.200
Fluorene		< 0.000200	$\mathrm{mg/L}$	0.200
Phenanthrene		0.000490	${ m mg/L}$	0.200
Anthracene		< 0.000200	$\mathrm{mg/L}$	0.200
Fluoranthene		< 0.000200	mg/L	0.200
Pyrene		< 0.000200	mg/L	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.200

<sup>&</sup>lt;sup>1</sup>Received out of holding time.

Work Order: 4042615 JAMAR Page Number: 2 of 2 Monument, NM

 $sample~32595~continued~\dots$ 

Param	Flag	Result	Units	RL
Chrysene		< 0.000200	mg/L	0.200
Benzo(b)fluoranthene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.200
Benzo(a)pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Dibenzo(a,h)anthracene		< 0.000200	${ m mg/L}$	0.200
Benzo(g,h,i)perylene		< 0.000200	m mg/L	0.200
Total Dissolved Solids		2855	$\mathrm{mg/L}$	10.00

Sample: 32596 - W-03

Param	$\operatorname{Flag}$	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		< 4.00	mg/L as CaCo3	4.00
Total Alkalinity		< 4.00	mg/L as CaCo3	4.00
Dissolved Calcium		467	$\mathrm{mg/L}$	0.500
Dissolved Potassium		6.52	$\mathrm{mg/L}$	0.500
Dissolved Magnesium		60.9	$\mathrm{mg/L}$	0.500
Dissolved Sodium		127	$\mathrm{mg/L}$	0.500
Chloride		1240	$\mathrm{mg/L}$	0.500
Fluoride		3.06	$\mathrm{mg/L}$	0.200
Sulfate		27.8	$\mathrm{mg/L}$	0.500
Nitrate-N	2	3.17	$\mathrm{mg/L}$	0.200
Naphthalene		< 0.000200	$\mathrm{mg/L}$	0.200
Acenaphthylene		< 0.000200	$\mathrm{mg/L}$	0.200
Acenaphthene		< 0.000200	$\mathrm{mg/L}$	0.200
Fluorene		< 0.000200	${ m mg/L}$	0.200
Phenanthrene		< 0.000200	${ m mg/L}$	0.200
Anthracene		< 0.000200	mg/L	0.200
Fluoranthene		< 0.000200	${ m mg/L}$	0.200
Pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(a)anthracene		< 0.000200	$\mathrm{mg/L}$	0.200
Chrysene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(b)fluoranthene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(k)fluoranthene		< 0.000200	${ m mg/L}$	0.200
Benzo(a)pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	m mg/L	0.200
Dibenzo(a,h)anthracene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(g,h,i)perylene		< 0.000200	m mg/L	0.200
Total Dissolved Solids		2190	$\mathrm{mg/L}$	10.00

<sup>&</sup>lt;sup>2</sup>Received out of holding time.

6701 Aberdeen Avenue, Suite 9 155 McCutcheon, Suite H

Lubbock, Texas 79424 El Paso, Texas 79932

888 • 588 • 3443

FAX 915 • 585 • 4944

Report Date: May 5, 2004

Work Order: 4042615

E-Mail: lab@traceanalysis.com

915 • 585 • 3443

# **Analytical and Quality Control Report**

John Bunch RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location: Monument, NM

Project Name:

**JAMAR** 

Project Number:

**JAMAR** 

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	ime	Date
Sample	Description	Matrix	Taken	Taken	Received
32595	W-01	water	2004-04-23	00:00	2004-04-26
32596	W-03	water	2004-04-23	00:00	2004-04-26

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis,

Work Order: 4042615 **JAMAR** 

**JAMAR** 

Page Number: 2 of 14 Monument, NM

## **Analytical Report**

Sample: 32595 - W-01

Analysis: Alkalinity OC Batch: 9317 Prep Batch: 8279

Analytical Method: SM 2320B Date Analyzed: 2004-04-29 Date Prepared: 2004-04-29 Prep Method: N/A Analyzed By: Prepared By: RS

Parameter Flag Result Units Dilution RL Hydroxide Alkalinity <1.00 mg/L as CaCo3 1.00 1 Carbonate Alkalinity mg/L as CaCo3 1.00 < 1.00 1 Bicarbonate Alkalinity 120 mg/L as CaCo3 1 4.00 Total Alkalinity 120 mg/L as CaCo3 1 4.00

RL

Sample: 32595 - W-01

Analysis: **BTEX** QC Batch: 9210 Prep Batch: 8179

Analytical Method: S 8021B Date Analyzed: 2004-04-27 Date Prepared: 2004-04-27

Prep Method: S 5030B Analyzed By: MT Prepared By: MT

RL Parameter Flag Result Units Dilution RL Benzene < 0.00500 0.00100 mg/L 5 Toluene 5 < 0.00500 mg/L 0.00100 Ethylbenzene < 0.00500 mg/L 5 0.00100 Xylene < 0.00500 5 0.00100 mg/L

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.454	mg/L	5	0.100	91	71.2 - 115
4-Bromofluorobenzene (4-BFB)	1	0.377	mg/L	5	0.100	75	76.5 - 116

Sample: 32595 - W-01

Cations Analysis: QC Batch: 9339 Prep Batch: 8171

Analytical Method: Date Analyzed:

Date Prepared:

S 6010B 2004-04-28 2004-04-27 Prep Method: S 3005A Analyzed By: BC

TP

Prepared By:

RL Parameter Result Flag Units Dilution RLDissolved Calcium 365 mg/L 0.500 Dissolved Potassium 0.500 32.2 mg/L 1 Dissolved Magnesium 98.5 0.500 1 mg/LDissolved Sodium 423 mg/L 0.500

Sample: 32595 - W-01

Analysis: Ion Chromatography

QC Batch: 9182

Analytical Method: E 300.0 2004-04-27 Date Analyzed:

Prep Method: N/A Analyzed By: JSW

<sup>&</sup>lt;sup>1</sup>Low BFB surrogate recovery due to matrix inteference. TFT surrogate recovery shows the method to be in control.

Report Date: May 5, 2004

**JAMAR** 

Work Order: 4042615 **JAMAR** 

Page Number: 3 of 14 Monument, NM

Prep Batch: 8153

Date Prepared:

2004-04-26

JSW Prepared By:

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		1610	mg/L	100	0.500
Fluoride		< 3.00	mg/L	15	0.200
Sulfate		41.7	mg/L	15	0.500

Sample: 32595 - W-01

Analysis: QC Batch: NO3 (IC) 9182

Analytical Method:

E 300.0

Analyzed By:

Prep Method: N/A JSW

Prep Batch:

Date Analyzed:

2004-04-27

8153

Date Prepared:

2004-04-26

Prepared By:

**JSW** 

RL

0.200

RL

Parameter Flag Result Dilution Units Nitrate-N <3.00 mg/L 15

Sample: 32595 - W-01

Analysis:

PAH 9397 Analytical Method:

S 8270C

Prep Method:

S 3510C

QC Batch: Prep Batch: 8174 Date Analyzed: Date Prepared:

2004-05-02 2004-04-27

Analyzed By: RC Prepared By: JΗ

RL

Parameter Flag Result RLUnits Dilution Naphthalene 0.000390 mg/L 0.001 0.200 Acenaphthylene < 0.000200 0.001 0.200 mg/L Acenaphthene < 0.000200 0.001 0.200 mg/L Fluorene < 0.000200 mg/L 0.001 0.200Phenanthrene 0.000490 mg/L 0.001 0.200 Anthracene < 0.000200 0.001 0.200 mg/L Fluoranthene < 0.000200 0.001 0.200 mg/L 0.200 Pyrene < 0.000200 mg/L 0.001 Benzo(a)anthracene 0.200 < 0.000200 mg/L 0.001 Chrysene < 0.000200 mg/L 0.001 0.200 Benzo(b)fluoranthene < 0.000200 0.001 0.200 mg/LBenzo(k)fluoranthene < 0.000200 0.200 mg/L0.001 Benzo(a)pyrene < 0.000200 mg/L 0.001 0.200 Indeno(1,2,3-cd)pyrene < 0.000200 mg/L0.001 0.200 Dibenzo(a,h)anthracene < 0.000200 mg/L 0.001 0.200 Benzo(g,h,i)perylene < 0.000200 mg/L0.001 0.200

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0214	mg/L	0.001	80.0	27	0 - 128
2-Fluorobiphenyl		0.0253	mg/L	0.001	80.0	32	0 - 140
Terphenyl-d14		0.0384	mg/L	0.001	80.0	48	0 - 165

Sample: 32595 - W-01

<sup>&</sup>lt;sup>2</sup>Received out of holding time.

Report Date: May 5, 2004

**JAMAR** 

Work Order: 4042615

**JAMAR** 

Page Number: 4 of 14 Monument, NM

Analysis: OC Batch: Prep Batch:

**TDS** 9287 8251 Analytical Method: Date Analyzed:

Flag

SM 2540C 2004-04-30

Date Prepared:

2004-04-29

Prep Method:

Analyzed By: **JSW** Prepared By: JSW

Parameter Total Dissolved Solids Result 2855

Units mg/L Dilution

RL

10.00

N/A

N/A

Sample: 32596 - W-03

Analysis:

Alkalinity

Analytical Method:

SM 2320B

Prep Method:

Analyzed By: RS

QC Batch: Prep Batch:

9317 8279 Date Analyzed: Date Prepared:

2004-04-29 2004-04-29

Prepared By:

RS

RL

Result RLParameter Flag Units Dilution Hydroxide Alkalinity mg/L as CaCo3 1.00 < 1.00 Carbonate Alkalinity < 1.00 mg/L as CaCo3 1 1.00 Bicarbonate Alkalinity < 4.00 mg/L as CaCo3 4.00 1 4.00 < 4.00 mg/L as CaCo3 Total Alkalinity 1

Sample: 32596 - W-03

Analysis: QC Batch:

**BTEX** 9210 Prep Batch: 8179

Analytical Method: Date Analyzed:

Date Prepared:

S 8021B 2004-04-27

2004-04-27

Prep Method: Analyzed By:

S 5030B MT Prepared By: MT

RL

Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.00500	mg/L	5	0.00100
Toluene		< 0.00500	mg/L	5	0.00100
Ethylbenzene		< 0.00500	mg/L	5	0.00100
Xylene		< 0.00500	mg/L	5	0.00100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.440	mg/L	5	0.100	88	71.2 - 115
4-Bromofluorobenzene (4-BFB)		0.387	mg/L	5	0.100	77	76.5 - 116

Sample: 32596 - W-03

Analysis: QC Batch:

Cations 9339

Analytical Method: Date Analyzed:

S 6010B 2004-04-28 Prep Method: Analyzed By: S 3005A

Prep Batch: 8171

Date Prepared:

BC

2004-04-27

Prepared By:

RL.

Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		467	mg/L	1	0.500
Dissolved Potassium		6.52	mg/L	1	0.500
Dissolved Magnesium		60.9	mg/L	1	0.500

**JAMAR** 

Work Order: 4042615 **JAMAR** 

Page Number: 5 of 14 Monument, NM

sample 32596 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Sodium		127	mg/L	1	0.500

Sample: 32596 - W-03

Analysis:

Ion Chromatography

QC Batch: 9182 Prep Batch: 8153 Analytical Method: Date Analyzed:

Date Prepared:

E 300.0

2004-04-27 2004-04-26 Prep Method: N/A

Analyzed By: **JSW** Prepared By: **JSW** 

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		1240	mg/L	100	0.500
Fluoride		3.06	mg/L	15	0.200
Sulfate		27.8	mg/L	15	0.500_

Sample: 32596 - W-03

Prep Batch: 8153

Analysis: QC Batch: NO3 (IC) 9182

Analytical Method: E 300.0 Date Analyzed:

Date Prepared:

2004-04-27 2004-04-26 Prep Method: N/A

Analyzed By: **JSW** Prepared By: **JSW** 

RL Parameter Flag Result Units Dilution RLNitrate-N 3.17 0.200 mg/L 15

Sample: 32596 - W-03

Analysis: QC Batch:

**PAH** 9397 Prep Batch: 8174 Analytical Method: Date Analyzed:

Date Prepared:

S 8270C 2004-05-02 2004-04-27 Prep Method: S 3510C

Analyzed By: RCPrepared By:

рī

		KL			
Parameter	Flag	Result	Units	Dilution	RL
Naphthalene		< 0.000200	mg/L	0.001	0.200
Acenaphthylene		< 0.000200	mg/L	0.001	0.200
Acenaphthene		< 0.000200	mg/L	0.001	0.200
Fluorene		< 0.000200	mg/L	0.001	0.200
Phenanthrene		< 0.000200	mg/L	0.001	0.200
Anthracene		< 0.000200	mg/L	0.001	0.200
Fluoranthene		< 0.000200	mg/L	0.001	0.200
Pyrene		< 0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.001	0.200
Chrysene		< 0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.001	0.200

<sup>&</sup>lt;sup>3</sup>Received out of holding time.

**JAMAR** 

Work Order: 4042615 **JAMAR** 

Page Number: 6 of 14 Monument, NM

### sample 32596 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.001	0.200

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0319	mg/L	0.001	80.0	40	0 - 128
2-Fluorobiphenyl		0.0378	mg/L	0.001	80.0	47	0 - 140
Terphenyl-d14		0.0431	mg/L	0.001	80.0	54	0 - 165

### Sample: 32596 - W-03

Analysis: **TDS** QC Batch: 9287 Prep Batch: 8251

Analytical Method: SM 2540C Date Analyzed: 2004-04-30 Date Prepared:

2004-04-29

Prep Method: N/A Analyzed By: JSW Prepared By:

RLParameter Flag Result Units Dilution RLTotal Dissolved Solids 2190 mg/L 10.00

## Method Blank (1)

QC Batch: 9182

Parameter	Flag	Result	Units	RL
Nitrate-N		< 0.200	mg/L	0.2

### Method Blank (1)

QC Batch: 9182

Parameter	Flag	Result	Units	RL
Chloride		< 0.500	mg/L	0.5
Fluoride		< 0.200	mg/L	0.2
Sulfate		< 0.500	mg/L	0.5

### Method Blank (1)

QC Batch: 9210

Parameter	Flag	Result	Units	RL
Benzene		< 0.00100	mg/L	0.001
Toluene		< 0.00100	mg/L	0.001
Ethylbenzene		< 0.00100	mg/L	0.001
Xylene		< 0.00100	mg/L	0.001

Report Date: May 5, 2004

JAMAR

Work Order: 4042615 JAMAR Page Number: 7 of 14 Monument, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0915	mg/L	1	0.100	92	64.1 - 117
4-Bromofluorobenzene (4-BFB)		0.0828	mg/L	1	0.100	83	72.2 - 118

Method Blank (1) QC Batch: 9287

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 9317

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		< 4.00	mg/L as CaCo3	4
Total Alkalinity		< 4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 9339

Parameter	Flag	Result	Units	RL
Dissolved Calcium		< 0.500	mg/L	0.5
Dissolved Potassium		< 0.500	mg/L	0.5
Dissolved Magnesium		< 0.500	mg/L	0.5
Dissolved Sodium		< 0.500	mg/L	0.5

Method Blank (1) QC Batch: 9397

Parameter	Flag	Result	Units	RL
Naphthalene	***************************************	< 0.000200	mg/L	0.2
Acenaphthylene		< 0.000200	mg/L	0.2
Acenaphthene		< 0.000200	mg/L	0.2
Fluorene		< 0.000200	mg/L	0.2
Phenanthrene		< 0.000200	mg/L	0.2
Anthracene		< 0.000200	mg/L	0.2
Fluoranthene		< 0.000200	mg/L	0.2
Pyrene		< 0.000200	mg/L	0.2
Benzo(a)anthracene		< 0.000200	mg/L	0.2
Chrysene		< 0.000200	mg/L	0.2
Benzo(b)fluoranthene		< 0.000200	mg/L	0.2
Benzo(k)fluoranthene		< 0.000200	mg/L	0.2
Benzo(a)pyrene		< 0.000200	mg/L	0.2
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.2
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.2

Work Order: 4042615 JAMAR Page Number: 8 of 14 Monument, NM

method blank continued . . .

Parameter	Flag	Result	Units	RL
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.2

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0382	mg/L	0.001	80.0	48	0 - 128
2-Fluorobiphenyl		0.0449	mg/L	0.001	80.0	56	0 - 140
Terphenyl-d14		0.0477	mg/L	0.001	80.0	60	0 - 165

Duplicate (1) QC Batch: 9287

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Total Dissolved Solids	1158	1262	mg/L	2	8	8.7

Duplicate (1) QC Batch: 9317

	Duplicate	Sample		,		RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	< 1.00	< 1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	136	134	mg/L as CaCo3	1	1	20
Total Alkalinity	136	134	mg/L as CaCo3	1	1	4.8

Laboratory Control Spike (LCS-1) QC Batch: 9182

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Nitrate-N	2.46	2.45	mg/L	1	2.50	< 0.0217	98	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 9182

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	12.0	12.3	mg/L	1	12.5	< 0.337	96	2	90 - 110	20
Fluoride	2.50	2.49	mg/L	1	2.50	< 0.0594	100	0	90 - 110	20
Sulfate	12.4	12.5	mg/L	1	12.5	< 0.409	99	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 9210

Report Date: May 5, 2004

JAMAR

Work Order: 4042615 JAMAR Page Number: 9 of 14 Monument, NM

control spikes continued . . .

•	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Benzene	0.0868	0.0986	mg/L	1	0.100	< 0.000255	87	13	79.2 - 113	20
Toluene	0.0864	0.0972	mg/L	1	0.100	< 0.000153	86	12	78.8 - 114	20
Ethylbenzene	0.0866	0.0975	mg/L	1	0.100	< 0.000226	87	12	79.8 - 112	20
Xylene	0.264	0.295	mg/L	1	0.300	< 0.000531	88	11	76.8 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.0815	0.0910	mg/L	1	0.100	82	91	71.2 - 115
4-Bromofluorobenzene (4-BFB)	0.0868	0.0927	mg/L	1	0.100	87	93	76.5 - 116

Laboratory Control Spike (LCS-1) QC Batch: 9339

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Dissolved Calcium	97.1	96.7	mg/L	1	100	< 0.102	97	0	85 - 115	20
Dissolved Potassium	97.6	97.6	mg/L	1	100	< 0.101	98	0	85 - 115	20
Dissolved Magnesium	95.1	94.9	mg/L	1	100	< 0.110	95	0	85 - 115	20
Dissolved Sodium	101	100	mg/L	1	100	< 0.120	101	1	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 9397

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Naphthalene	36.0	36.8	mg/L	1	80.0	< 0.0445	45	2	22.5 - 119	20
Acenaphthylene	49.4	49.5	mg/L	1	80.0	< 0.0383	62	0	42.3 - 127	20
Acenaphthene	47.5	47.6	mg/L	1	80.0	< 0.0421	59	0	38 - 125	20
Fluorene	56.6	57.1	mg/L	1	80.0	< 0.0655	71	1	36.6 - 130	20
Phenanthrene	61.6	62.5	mg/L	1	80.0	< 0.0383	77	1	40.3 - 131	20
Anthracene	63.2	64.6	mg/L	1	80.0	< 0.0468	79	2	36.7 - 135	20
Fluoranthene	68.2	68.5	mg/L	1	80.0	< 0.0550	85	0	43.2 - 133	20
Pyrene	69.2	70.3	mg/L	1	80.0	< 0.0904	86	2	48.8 - 157	20
Benzo(a)anthracene	71.9	73.5	mg/L	1	80.0	< 0.0993	90	2	40.2 - 138	20
Chrysene	125	127	mg/L	1	80.0	< 0.121	156	2	5.5 - 179	20
Benzo(b)fluoranthene	66.0	64.2	mg/L	1	80.0	< 0.171	82	3	16.4 - 156	20
Benzo(k)fluoranthene	75.0	77.3	mg/L	1	80.0	< 0.0951	94	3	40.9 - 150	20
Benzo(a)pyrene	73.4	74.0	mg/L	1	80.0	< 0.135	92	1	38.7 - 149	20
Indeno(1,2,3-cd)pyrene	79.9	79.7	mg/L	1	80.0	< 0.176	100	0	32 - 153	20
Dibenzo(a,h)anthracene	108	107	mg/L	1	80.0	< 0.184	135	1	0 - 202	20
Benzo(g,h,i)perylene	76.2	76.0	mg/L	1	80.0	< 0.134	95	0	39.1 - 144	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: May 5, 2004

JAMAR

Work Order: 4042615 JAMAR Page Number: 10 of 14 Monument, NM

control spikes continued . . .

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Buildgate	Result		- Cints		7 tillouin	100.		
	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Nitrobenzene-d5	22.2	22.6	mg/L	1	80.0	28	28	0 - 128
2-Fluorobiphenyl	30.4	30.3	mg/L	1	80.0	38	38	0 - 140
Terphenyl-d14	49.5	50.0	mg/L	1	80.0	62	62	0 - 165

Matrix Spike (MS-1)

QC Batch: 9182

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Nitrate-N	256	258	mg/L	100	2.50	19.1	95	1	79.6 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 9182

		MS	MSD			Spike	Matrix			Rec.	RPD
Param		Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride		2430	2470	mg/L	100	12.5	1240	95	2	74.3 - 118	20
Fluoride	45	264	266	mg/L	100	2.50	< 5.94	106	1	84.9 - 104	20
Sulfate		1280	1320	mg/L	100	12.5	83.1	96	3	77.8 - 112	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 9339

		MS	MSD			Spike	Matrix			Rec.	RPD
Param		Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Dissolved Calcium	67	197	203	mg/L	1	100	132	65	3	75 - 125	20
Dissolved Potassium		114	113	mg/L	1	100	3.19	111	1	75 - 125	20
Dissolved Magnesium		188	187	mg/L	1	100	100	88	0	75 - 125	20
Dissolved Sodium		118	121	mg/L	1	100	18.3	100	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1) QC Batch: 9182

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.44	98	90 - 110	2004-04-27

Standard (ICV-1) QC Batch: 9182

<sup>&</sup>lt;sup>4</sup>matrix difficulties

<sup>&</sup>lt;sup>5</sup>matrix difficulties.

<sup>&</sup>lt;sup>6</sup>ms recovery out of limits due to matrix effect, use lcs/lcsd

<sup>&</sup>lt;sup>7</sup>ms recovery out of limits due to matrix effect, use lcs/lcsd

Work Order: 4042615

Page Number: 11 of 14

JAMAR				JAMAR			Monument, NM
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride	<u>S</u>	mg/L	12.5	12.0	96	90 - 110	2004-04-27
Fluoride		mg/L	2.50	2.50	100	90 - 110	2004-04-27
Sulfate		mg/L	12.5	12.4	99	90 - 110	2004-04-27
Standard (CO	CV-1) QC B	atch: 9182					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.45	98	90 - 110	2004-04-27
Standard (CC	CV-1) OC B	atch: 9182			THE		AL-TANANANANANANANANANANANANANANANANANANAN
, candara (O	0 ( 1) QO D		CCV-	CCVs	CCV	Percent	
			CCVs		CCVs		70-4-
Dorom	Eloa	Units	True	Found	Percent	Recovery	Date
Param Chloride	Flag		Conc. 12.5	Conc. 12.1	Recovery	Limits 90 - 110	Analyzed 2004-04-27
Fluoride		mg/L mg/L	2.50	2.50	97 100	90 - 110 90 - 110	2004-04-27
Sulfate		mg/L	12.5	12.4	99	90 - 110	2004-04-27
<b>Standard (IC</b> Param	(V-1) QC Ba Flag	tch: 9210 Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	Tiag	mg/L	0.100	0.0943	94	85 - 115	2004-04-27
Toluene		mg/L	0.100	0.0943	94 94	85 - 115	2004-04-27
Ethylbenzene		mg/L	0.100	0.0937	94	85 - 115	2004-04-27
Xylene		mg/L mg/L	0.300	0.287	96	85 - 115	2004-04-27
Standard (CC	CV-1) QC Ba	atch: 9210					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.100	0.0981	98	85 - 115	2004-04-27
Toluene		mg/L	0.100	0.0979	98	85 - 115	2004-04-27
Ethylbenzene		mg/L	0.100	0.0988	99	85 - 115	2004-04-27
Xylene		mg/L	0.300	0.299	100	85 - 115	2004-04-27
Standard (IC	V-1) QC Bat	tch: 9287					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Daram		Elec II.	ita Com	C	D	T innia.	A 1 1

Standard (CCV-1) QC Batch: 9287

Flag

Units

mg/L

Conc.

1000

Conc.

1004

Recovery

100

Limits

90 - 110

Analyzed

2004-04-30

Param

Total Dissolved Solids

Report Date: May 5, 2004 JAMAR	4		Work Order: JAMA			Page Number: 12 of 14 Monument, NM		
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	
Total Dissolved Solids		mg/L	1000	1008	101	90 - 110	2004-04-3	
Standard (ICV-1) QC	Batch: 931	17	661		0.01	_		
			CCVs	CCVs	CCVs	Percent	Data	
Param	Elec	Units	True Conc.	Found	Percent	Recovery Limits	Date	
Hydroxide Alkalinity	Flag	mg/L as CaCo3	0.00	Conc. <1.00	Recovery	0 - 200	Analyzec 2004-04-2	
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2004-04-2	
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2004-04-2	
Total Alkalinity		mg/L as CaCo3	250	244	98	90 - 110	2004-04-2	
Standard (CCV-1) Q	C Batch: 93		CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2004-04-2	
Carbonate Alkalinity		mg/L as CaCo3	0.00	< 1.00		0 - 200	2004-04-2	
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2004-04-2	
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2004-04-2	

Standard	(ICV-1)	OC Batch	. 0330
Stanuaru	1C V-1)	QC Dates	1. 9339

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	24.9	100	90 - 110	2004-04-28
Dissolved Potassium		mg/L	25.0	24.6	98	90 - 110	2004-04-28
Dissolved Magnesium		mg/L	25.0	24.6	98	90 - 110	2004-04-28
Dissolved Sodium		mg/L	25.0	26.0	104	90 - 110	2004-04-28

## Standard (CCV-1) QC Batch: 9339

			CCVs	CCVs	CCVs	Percent	_
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Calcium		mg/L	25.0	24.6	98	90 - 110	2004-04-28
Dissolved Potassium		mg/L	25.0	25.5	102	90 - 110	2004-04-28
Dissolved Magnesium		mg/L	25.0	24.5	98	90 - 110	2004-04-28
Dissolved Sodium		mg/L	25.0	26.0	104	90 - 110	2004-04-28

## Standard (CCV-1) QC Batch: 9397

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Naphthalene		mg/L	60.0	61.7	103	80 - 120	2004-05-02

Work Order: 4042615 **JAMAR** 

Page Number: 13 of 14 Monument, NM

standard continued . . .

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Acenaphthylene		mg/L	60.0	58.4	97	80 - 120	2004-05-02
Acenaphthene		mg/L	60.0	58.0	97	80 - 120	2004-05-02
Fluorene		mg/L	60.0	59.1	98	80 - 120	2004-05-02
Phenanthrene		mg/L	60.0	58.4	97	80 - 120	2004-05-02
Anthracene		mg/L	60.0	57.7	96	80 - 120	2004-05-02
Fluoranthene		mg/L	60.0	60.0	100	80 - 120	2004-05-02
Pyrene		mg/L	60.0	61.3	102	80 - 120	2004-05-02
Benzo(a)anthracene		mg/L	60.0	61.1	102	80 - 120	2004-05-02
Chrysene		mg/L	60.0	66.4	111	80 - 120	2004-05-02
Benzo(b)fluoranthene		mg/L	60.0	54.7	91	80 - 120	2004-05-02
Benzo(k)fluoranthene		mg/L	60.0	59.0	98	80 - 120	2004-05-02
Benzo(a)pyrene		mg/L	60.0	60.9	102	80 - 120	2004-05-02
Indeno(1,2,3-cd)pyrene		mg/L	60.0	63.7	106	80 - 120	2004-05-02
Dibenzo(a,h)anthracene		mg/L	60.0	69.7	116	80 - 120	2004-05-02
Benzo(g,h,i)perylene		mg/L	60.0	63.5	106	80 - 120	2004-05-02

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limit
Nitrobenzene-d5	8	37.8	mg/L	1	60.0	63	80 - 120
2-Fluorobiphenyl	9	42.7	mg/L	1	60.0	71	80 - 120
Terphenyl-d14	10	42.4	mg/L	1	60.0	71	80 - 120

<sup>&</sup>lt;sup>8</sup>The average of the CCV's compounds shows that the process is in control.

<sup>9</sup>The average of the CCV's compounds shows that the process is in control.

<sup>10</sup>The average of the CCV's compounds shows that the process is in control.

Report Date: May 5, 2004 JAMAR

Work Order: 4042615 JAMAR Page Number: 14 of 14 Monument, NM

Γ	$\neg$		T						···	blot								$\neg$		T	T			Γ
						paepu	siz mo	il Inerel	lib li arr	iiT bauosA mul											]			
	ST			_														$\blacksquare$	1	_	]			
	OUE		ļ	_							<del>                                     </del>							-	+	<del> </del>	1			
	RE					~	7·1	l stra	1012	CONTR											1		£.	
	rsis	$\mathcal{O}$		-		_>(	<u>11</u>	5uc	生2	40 SST 008	-	X								-	-		eportii	
	CHAIN-OF-CUSTODY AND ANALYSIS REQUEST	4042613	F 2	. Z					803\A1	esticides 808											<u> </u>		Check Il Special Reporting Limits Are Needed	
	DAI	12	ANALYSIS REQUEST	- PO						CB.* 8085\60	7	_	_			_		_		<u> </u>	1		If Spe Are N	
	AN	$\otimes$	REC	<u>₹</u>						SCIMS Semi 1 SCIMS AN 85						-		$\dashv$	+	+-	ij		Check	
	ao.	`	SIS							IOF										]	REMARKS			
	UST	# 0	ALY							ICLP Semi Vol	-							-		-	Ę.			
	Y-C	rder	A C							LCLP Volatiles	1	1.7										z	· MA	
	- <u>N</u>	LAB Order ID #	ļ	_	/ 007 <i>1</i> 00					Fotal Metals Ag TCLP Metals A	<del> </del>						_		+	-	SE	Z X	2	
	CHA	_		-	2 002/8	0109 0	1 05 4	3 10 10	CB 34	AH 8270C	*	X				_	_	_	_	╁┈	AB USE		ew	
1				_						XT\r 814 H91		V									₹0	Intact Headspace	Temp Log-in Review	3
					—-					NTBE 80218/6	-	X				$\dashv$		-	+	+	<b> </b>	Intact	Temp. Log-in	Carrier #
		<u> </u>		****	T	T			DN DN	TIME												T	Terrett.	
of the	Suite F 79932	3443 4944 443	_0						SAMPLING	3TA0	$\vdash$						$\dashv$		+	-	-		2	
100	155 McCulcheon, Suite H El Paso, Texas 79932 Tel (915) 585-3443 Fax (915) 585-4944		17	1					S.	3100	ļ					_	_	_		ļ	_			
100			K	7			'	1/2	V/™ ,	NONE	-				-			+		-	نق	6	60	
1 5			1	d'				ر. دريل	MATE OD	30	<u> </u>					$\neg$	$\dashv$	-	-	-	TE TE	Time:	Time	
			9	7			<u>द</u> े		PRESERVATION METHOD	HOPN											]\		12	U
}	e	ز	Y	2	1		18. 18. 18. 18.	Signature:	PRE	*05°H	$\vdash$							+		ļ	Date	Date:	Date:	0.0
	\$	505 505	* C	Ū,	45			is /	7	HCI						-		$\dashv$	_					deo
	200		e g	Ž.K	3 6	1/	Project Name	Sampler													] \		3	rse s
	٥	2	<b>EU</b> )		T.	1/9	à	S.	MATRIX	SCNDGE VIB	╀					_					\		1 2 px	reve
	۵. در	2	ğ		3	ارخ			W/	POIL	<del></del>					-		+		-	\		at Laboratory by Nemola (VC)	ed or
	<b>1993</b>		7	) <u>_</u>	J >					RBTAW	X	X										V.	at Laborato	lsi st
	Ç	<b>₹</b>	Ĵ	2007		13	1		ากก	omA\smufoV		i							ŀ		red by:	AT Page		ditio
	<u>}:</u>	==i		V	12	3	1	İ	SHE	# CONTAINI	3										Received	Received	Received	ပ္မ
		IaceAlla		7	5	(INSUM NO					-	7,			_		+	_		-	4		<del> </del>	ns an
	Ç	<u> </u>		7	3			2													Time: /	Time:	Time:	) Terr
	5	2		10		4	V	>	1	E .											F	F	F	ent to
			9	MS	7	<del>W</del>		14		FIELD CODE	_	W					İ				2	. \	j	лееп
6	מ		d	Ē	1 3			3		7ELC	W-0	Ö									Date: 423/54	Date:	Batte:	les a
Sle	. SIE.	ر م يو د	18	dis	22			Monument		_	3	80-M									7			nstitu
enne	15 794 1-129	1296	$ \mathcal{X} $	A MARINE	1 2	iove)		18													0			S CO
A na	Texal .	36) 79 36) 79 378 ((	<u>а</u>	罗	1 E C	Ĭ Ř		١													17 Z	à	ا څ	ample
berde	bbock	Fax (806) 734-1298 1 (800) 378-1296	Сотралу Мате:	Addressing	6部	Invoice to: If different from above)	<u></u>	Project Location:		je)	33	26%				_			+	<b> </b>	Relinquished by:	Relinquished by:	Relinquished by:	Submillal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.
107	֓֞֞֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	ш	mpan	Saur Juess	Contact	Invoice to:	Project #:	lect I		(LAB USE)	32595	ŭ									ndmi:	in bu	indui	Pmilts:
1 "	-		ē	ĄĞ	lā		[E	5	l	ے کے	lo,		.	l	Į	- (	- {	ĺ	Ι.				Se l	S

But the transfer of the transfer of the control of the control of the transfer

**************************************	$\overline{}$	•				<u>-</u>				bloh									I	<u>.                                    </u>		72	
_ot	ST					ndard	sis mo	il In919	itib ti ən	niT bround TiuT									-			Bak	
Page	CHAIN-OF-CUSTODY AND ANALYSIS REQUEST			_		Ó	0100 TI	o to	اری اریک	<i>i</i> ⁄⁄ 10 ∃ <b>5001U</b> H		V							-  -  -			ing	
Œ	LYSIS	019		_ - ⊊		, ス	٨٢	746	ナツ	Hq ,22T ,008	+~	^							1			Check If Special Reporting Limits Are Needed	
	ANA	42	JEST	0N DOI						PCB's 8082/608	<b>—</b>				_							Special e Need	
	AND	<i>Q</i>	REOL	ry men  -						GC/MS Vol. 826					_		-		ij			theck If imits Ar	
	TOD		YSIS							TCLP Pesticide:	_								REMARKS				
	Sno-	LAB Order ID #	ANALYSIS REQUEST	(Circle of specify Method No.)						TCLP Semi Vola									#			الداء	
	N-OF	B Ord								TCLP Metals Ag TCLP Volatiles		\$27							Щ.		Z	M	
	CHAI	3			08/500	) 109 gt	4 <del>9</del> S q,	Cd Cr P	s8 sA	PAH 8270C Total Metals Ag	X	×							AB USE		<b>&gt;</b>	iew	
	-									D9/81208 X3T8 1XT\1.814 H9T	·X	·X							<b>₹</b> °	5	Headspace	TempLog-in Review	Carrier #
				a de		T	Τ	T	205	A/81208 38TM										- Intact	<u> </u>	Temp_ Log-in	Carr
	uite H 9932	143 944 43		88					SAMPLING	AMIT	· 					-						87	
į	tcheon,S Texas 7	Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443	76	R					SAI	3TA0	<u> </u>				_							1:1	
4	55 McCu El Paso,	Tel (91) Fax (91) 1 (888)	00	*			'	4.		NONE									ige:	Time:		ë.	
	i i		7-1	2-6			7.		PRESERVATION METHOD	ICE NgOH						_			 1			F 60/1	
		ن	T	26			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	· 176 \	PRES ME	PSSPH FONH						_			Date:	Date:		Date:	e of C.O.C
	3		*()	W,	0/1			er Sign	*	HCI									] \ [				ed on reverse side of
		_	Shone *		K		Project Na	Sampler	} ≚	SLUDGE	-				+							\$ -\$	verse s
	• •		9	W.	2	12			MATRIX	AIA					1				] \			atory to 7/2	d on re
			3		WW,	Priz				SOIL JIOS	X	X							<u>.</u>	\\ \.		Received at Laboratory by	is listed
		7	3	Show	B	\$			ţun	omA\amuloV									Received by:	Received by:			ondition
	<b>*</b>				A	(virune			SH:	# CONTAINE	7	7	•						Recei	Recei /		Recei	and Co
		raceAnalysis,		ndan		3		7												1		ë	Terms
		<u> </u>		~		4		\$		Ä									Time: / 44	Time		Time:	ent to
		=	9	SH	3	X		7		FIELD CODE	\ ~	W							ate:	` اق	V	äi	agreem
	e. 9		35	رونع م	7 2	$\cup$		3	Y	FE	W-01	W-03							Date:	Date		Date:	itutes
	nue, St 79424	1296 1296 1296	3	るな	A	(e)		Monumen			7	Z											const
76	en Aver Texas	6) /94- 6) 794- 1) 378-1	Je:	A.	ک	m abo		] Suc				!							7	d is		\ خ	amples
	6701 Aberdeen Avenue, Ste. Lubbock, Texas 79424	lel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296	ny Nan	K	100	to: ent fro	#	Locati		# (xe)	36	269		_			+		ished by:			ished I	Submittal of samples constitutes agreement to Terms and Conditions listed on reverse sid
559 C	6701 L	-	Company Name:	Addressi	Contact	Invoice to: (If different from above)	Project #:	Project Location:		LAB #	32595	S							Relinquished by	Relindui		Relinquished by:	Submit
7.0				<u> </u>	<u>. –                                    </u>	<u> </u>	144	15			<u>`                                    </u>		لــــا	1				11	 $\frac{1}{\pi}$	14			1

1459-01

Work Order: 4043013

Jamar

Page Number: 1 of 2 Monument,NM

Report Date: May 10, 2004

Work Order: 4043013

# **Summary Report**

Ginger Gritzo

RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Name:

Project Location: Monument,NM

Project Number:

Jamar 1459-01

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
32883	WO2	water	2004-04-29	09:00	2004-04-30

	BTEX							
	Benzene	Toluene	Ethylbenzene	Xylene				
Sample - Field Code	(mg/L)	(mg/L)	(mg/L)	(mg/L)				
32883 - WO2	< 0.00500	< 0.00500	< 0.00500	< 0.00500				

Sample: 32883 - WO2

Param	Flag	Result	Units	RL_
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as $CaCo3$	1.00
Bicarbonate Alkalinity		72.0	mg/L as CaCo3	4.00
Total Alkalinity		72.0	mg/L as CaCo3	4.00
Dissolved Calcium		66.7	$\mathrm{mg/L}$	0.500
Dissolved Potassium		7.67	${ m mg/L}$	0.500
Dissolved Magnesium		23.0	$\mathrm{mg/L}$	0.500
Dissolved Sodium		257	$\mathrm{mg/L}$	0.500
Chloride		480	$\mathrm{mg/L}$	0.500
Fluoride		1.50	$\mathrm{mg/L}$	0.200
Sulfate		49.8	$\mathrm{mg/L}$	0.500
Nitrate-N	1	< 1.00	$_{ m mg/L}$	0.200
Naphthalene		< 0.000200	$\mathrm{mg/L}$	0.200
${f Acenaphthylene}$		0.000210	$\mathrm{mg/L}$	0.200
Acenaphthene		0.000200	$\mathrm{mg/L}$	0.200
Fluorene		< 0.000200	$\mathrm{mg/L}$	0.200
Phenanthrene		0.000210	$\mathrm{mg/L}$	0.200
Anthracene		< 0.000200	$_{ m mg/L}$	0.200
Fluoranthene		< 0.000200	${ m mg/L}$	0.200
Pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.200

 $<sup>^1</sup>$ Sample was ran within holding time for Nitrates( <1.00), but QC's did not pass. Sample reran out of holding time and got the same answer. <1.00 mg/L

TraceAnalysis, Inc. • 6701 Aberdeen Avc., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296

Report Date: May 10, 2004 1459-01

Work Order: 4043013 Jamar Page Number: 2 of 2 Monument,NM

sample 32883 continued ...

Param	Flag	Result	$\mathbf{U}\mathbf{nits}$	RL
Chrysene		< 0.000200	mg/L	0.200
Benzo(b)fluoranthene		< 0.000200	mg/L	0.200
Benzo(k)fluoranthene		< 0.000200	m mg/L	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		< 0.000200	m mg/L	0.200
Benzo(g,h,i)perylene		< 0.000200	m mg/L	0.200
Total Dissolved Solids		1052	mg/L	10.00

6701 Aberdeen Avenue, Suite 9 155 McCutcheon, Suite H

Lubbock, Texas 79424 El Paso, Texas 79932

800 • 378 • 1296 888 • 588 • 3443

806 • 794 • 1296 915 • 585 • 3443 FAX 806 • 794 • 1298

E-Mail: lab@traceanalysis.com

FAX 915 • 585 • 4944

# **Analytical and Quality Control Report**

Ginger Gritzo RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location: Monument, NM

Project Name: Project Number: Jamar 1459-01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
32883	WO2	water	2004-04-29	09:00	2004-04-30

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis,

Dr. Blair Leftwich, Director

Report Date: May 10, 2004

Work Order: 4043013

Report Date: May 10, 2004

1459-01

Work Order: 4043013

Jamar

Page Number: 2 of 11 Monument,NM

# **Analytical Report**

Sample: 32883 - WO2

Analysis: Alkalinity QC Batch: 9375

Prep Batch: 8328

Analytical Method: SM 2320B Date Analyzed:

2004-05-04

2004-05-04

Prep Method: N/A

Analyzed By: RS Prepared By: RS

DТ

Date Prepared:

		KL			
Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		72.0	mg/L as CaCo3	1	4.00
Total Alkalinity		72.0	mg/L as CaCo3	1	4.00

Sample: 32883 - WO2

Analysis:

Prep Batch: 8281

OC Batch:

**BTEX** 9318

Analytical Method: S 8021B Date Analyzed:

2004-04-30 2004-04-30 Prep Method: S 5030B

Analyzed By: MT Prepared By: MT

Date Prepared:

		KL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.00500	mg/L	5	0.00100
Toluene		< 0.00500	mg/L	5	0.00100
Ethylbenzene		< 0.00500	mg/L	5	0.00100
Xylene		< 0.00500	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.489	mg/L	5	0.100	98	71.2 - 115
4-Bromofluorobenzene (4-BFB)		0.401	mg/L	5	0.100	80	76.5 - 116

Sample: 32883 - WO2

Analysis: Cations QC Batch:

9496 Prep Batch: 8346

Analytical Method: S 6010B Date Analyzed:

Date Prepared:

2004-05-07 2004-05-05 Prep Method: S 3005A Analyzed By: BC

Prepared By:

RL

Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		66.7	mg/L	1	0.500
Dissolved Potassium		7.67	mg/L	1	0.500
Dissolved Magnesium		23.0	mg/L	1	0.500
Dissolved Sodium		257	mg/L	1	0.500

Sample: 32883 - WO2

Analysis:

Ion Chromatography

QC Batch: 9306 Prep Batch: 8271

Analytical Method: E 300.0 Date Analyzed:

Date Prepared:

2004-05-03 2004-04-30 Prep Method: N/A Analyzed By: JSW Prepared By: JSW Report Date: May 10, 2004

1459-01

Work Order: 4043013

Jamar

Page Number: 3 of 11 Monument,NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride	***************************************	480	mg/L	50	0.500
Fluoride		1.50	mg/L	5	0.200
Sulfate		49.8	mg/L	5	0.500

Sample: 32883 - WO2

Analysis: QC Batch:

NO3 (IC)

9363 Prep Batch: 8313 Analytical Method: E 300.0 Date Analyzed:

Date Prepared:

2004-05-04 2004-05-03 Prep Method: N/A Analyzed By: JSW

Prepared By: JSW

RΙ

		KL			
Parameter	Flag	Result	Units	Dilution	RL
Nitrate-N	1	<1.00	. mg/L	5	0.200

Sample: 32883 - WO2

Analysis:

PAH 9359 Analytical Method: S 8270C

2004-05-03

Prep Method: S 3510C

Analyzed By: RC

QC Batch: Prep Batch: 8266

Date Analyzed: Date Prepared:

2004-05-03

Prepared By:

JH

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Naphthalene		< 0.000200	mg/L	0.001	0.200
Acenaphthylene		0.000210	mg/L	0.001	0.200
Acenaphthene		0.000200	mg/L	0.001	0.200
Fluorene		< 0.000200	mg/L	0.001	0.200
Phenanthrene		0.000210	mg/L	0.001	0.200
Anthracene		< 0.000200	mg/L	0.001	0.200
Fluoranthene		< 0.000200	mg/L	0.001	0.200
Pyrene		< 0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.001	0.200
Chrysene		< 0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.001	0.200

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0292	mg/L	0.001	80.0	36	0 - 128
2-Fluorobiphenyl		0.0311	mg/L	0.001	80.0	39	0 - 140
Terphenyl-d14		0.0563	mg/L	0.001	80.0	70	0 - 165

Sample: 32883 - WO2

Sample was ran within holding time for Nitrates( <1.00), but QC's did not pass. Sample reran out of holding time and got the same answer. <1.00 mg/L

Report Date: May 10, 2004

1459-01

Work Order: 4043013

Jamar

Page Number: 4 of 11 Monument,NM

Analysis:

TDS QC Batch:

9462

Analytical Method: SM 2540C Date Analyzed:

Date Prepared:

2004-05-07

2004-05-06

Prep Method: N/A Analyzed By: JSW

Prepared By:

JSW

RL

Result Parameter Flag Dilution Units RLTotal Dissolved Solids 1052 10.00 mg/L

Method Blank (1)

Prep Batch: 8401

QC Batch: 9306

Parameter	Flag	Result	Units	RL
Chloride		< 0.500	mg/L	0.5
Fluoride		< 0.200	mg/L	0.2
Sulfate		< 0.500	mg/L	0.5

Method Blank (1)

QC Batch: 9318

Parameter	Flag	Result	Units	RL
Benzene		< 0.00100	mg/L	0.001
Toluene		< 0.00100	mg/L	0.001
Ethylbenzene		< 0.00100	mg/L	0.001
Xylene		< 0.00100	mg/L	0.001

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.0977	mg/L	1	0.100	98	64.1 - 117
4-Bromofluorobenzene (4-BFB)		0.0799	mg/L	1	0.100	80	72.2 - 118

Method Blank (1)

QC Batch: 9359

Parameter	Flag	Result	Units	RL
Naphthalene		< 0.000200	mg/L	0.2
Acenaphthylene		< 0.000200	mg/L	0.2
Acenaphthene		< 0.000200	mg/L	0.2
Fluorene		< 0.000200	mg/L	0.2
Phenanthrene		< 0.000200	mg/L	0.2
Anthracene		< 0.000200	mg/L	0.2
Fluoranthene		< 0.000200	mg/L	0.2
Pyrene		< 0.000200	mg/L	0.2
Benzo(a)anthracene		< 0.000200	mg/L	0.2
Chrysene		< 0.000200	mg/L	0.2
Benzo(b)fluoranthene		< 0.000200	mg/L	0.2
Benzo(k)fluoranthene		< 0.000200	mg/L	0.2
Benzo(a)pyrene		< 0.000200	mg/L	0.2
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.2

Work Order: 4043013

Jamar

Page Number: 5 of 11 Monument,NM

method blank continued . . .

Parameter	Flag	Result	Units	RL
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.2
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.2

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0602	mg/L	0.001	80.0	75	0 - 128
2-Fluorobiphenyl		0.0640	mg/L	0.001	80.0	80	0 - 140
Terphenyl-d14		0.0718	mg/L	0.001	80.0	90	0 - 165

Method Blank (1) QC Batch: 9363

Parameter	Flag	Result	Units	RL
Nitrate-N		< 0.200	mg/L	0.2

Method Blank (1) QC Batch: 9375

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		< 4.00	mg/L as CaCo3	4
Total Alkalinity		< 4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 9462

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 9496

Parameter	Flag	Result	Units	RL
Dissolved Calcium		< 0.500	mg/L	0.5
Dissolved Potassium		< 0.500	mg/L	0.5
Dissolved Magnesium		< 0.500	mg/L	0.5
Dissolved Sodium		< 0.500	mg/L	0.5

**Duplicate (1)** QC Batch: 9375

1459-01

Work Order: 4043013

Jamar

Page Number: 6 of 11

Monument,NM

					duplicate continued	
	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	< 1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	298	288	mg/L as CaCo3	1	3	20
Total Alkalinity	298	288	mg/L as CaCo3	1	3	4.8

Duplicate (1) QC Batch: 9462

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Total Dissolved Solids	1484	1616	mg/L	2	8	8.7

Laboratory Control Spike (LCS-1) QC Batch: 9306

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.7	11.9	mg/L	1	12.5	< 0.337	94	2	90 - 110	20
Fluoride	2.30	2.31	mg/L	1	2.50	< 0.0594	92	0	90 - 110	20
Sulfate	11.7	11.7	mg/L	1	12.5	< 0.409	94	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 9318

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.100	0.102	mg/L	1	0.100	< 0.000255	100	1	79.2 - 113	20
Toluene	0.100	0.102	mg/L	1	0.100	< 0.000153	100	1	78.8 - 114	20
Ethylbenzene	0.0998	0.101	mg/L	1	0.100	< 0.000226	100	1	79.8 - 112	20
Xylene	0.304	0.309	mg/L	1	0.300	< 0.000531	101	2	76.8 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.0989	0.0980	mg/L	1	0.100	99	98	71.2 - 115
4-Bromofluorobenzene (4-BFB)	0.0963	0.0958	mg/L	1	0.100	96	96	76.5 - 116

Laboratory Control Spike (LCS-1) QC Batch: 9359

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Naphthalene	41.8	41.8	mg/L	1	80.0	< 0.0445	52	0	22.5 - 119	20
Acenaphthylene	47.5	48.3	mg/L	1	80.0	< 0.0383	59	2	42.3 - 127	20
Acenaphthene	45.9	46.5	mg/L	1	80.0	< 0.0421	57	1	38 - 125	20

Work Order: 4043013

Jamar

Page Number: 7 of 11 Monument,NM

control spikes continued . . .

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Fluorene	52.9	53.3	mg/L	1	80.0	< 0.0655	66	1	36.6 - 130	20
Phenanthrene	60.1	60.2	mg/L	1	80.0	< 0.0383	75	0	40.3 - 131	20
Anthracene	64.8	65.1	mg/L	1	80.0	< 0.0468	81	0	36.7 - 135	20
Fluoranthene	67.5	67.7	mg/L	1	80.0	< 0.0550	84	0	43.2 - 133	20
Pyrene	65.8	65.4	mg/L	1	80.0	< 0.0904	82	1	48.8 - 157	20
Benzo(a)anthracene	68.6	68.0	mg/L	1	80.0	< 0.0993	86	1	40.2 - 138	20
Chrysene	108	105	mg/L	1	80.0	< 0.121	135	3	5.5 - 179	20
Benzo(b)fluoranthene	65.5	65.5	mg/L	1	80.0	< 0.171	82	0	16.4 - 156	20
Benzo(k)fluoranthene	67.7	67.8	mg/L	1	80.0	< 0.0951	85	0	40.9 - 150	20
Benzo(a)pyrene	69.8	69.5	mg/L	1	80.0	< 0.135	87	0	38.7 - 149	20
Indeno(1,2,3-cd)pyrene	73.3	73.9	mg/L	1	80.0	< 0.176	92	1	32 - 153	20
Dibenzo(a,h)anthracene	90.3	90.5	mg/L	1	80.0	< 0.184	113	0	0 - 202	20
Benzo(g,h,i)perylene	70.6	70.4	mg/L	1	80.0	< 0.134	88	0	39.1 - 144	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Nitrobenzene-d5	41.7	41.2	mg/L	1	80.0	52	52	0 - 128
2-Fluorobiphenyl	46.1	45.8	mg/L	1	80.0	58	57	0 - 140
Terphenyl-d14	69.5	69.1	mg/L	1	80.0	87	86	0 - 165

Laboratory Control Spike (LCS-1) QC Batch: 9363

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Nitrate-N	2.37	2.37	mg/L	1	2.50	< 0.0217	95	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 9496

_	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Dissolved Calcium	105	103	mg/L	1	100	< 0.102	105	2	85 - 115	20
Dissolved Potassium	95.2	97.0	mg/L	1	100	< 0.101	95	2	85 - 115	20
Dissolved Magnesium	102	101	mg/L	1	100	< 0.110	102	1	85 - 115	20
Dissolved Sodium	100	99.2	mg/L	1	100	< 0.120	100	1	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 9306

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	1270	1280	mg/L	50	12.5	684	94	1	74.3 - 118	20
Fluoride	122	122	mg/L	50	2.50	9.82	90	0	84.9 - 104	20
Sulfate	615	612	mg/L	50	12.5	39.3	92	0	77.8 - 112	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: May 10, 2004

1459-01

Work Order: 4043013

Jamar

Page Number: 8 of 11 Monument,NM

Matrix Spike (MS-1)

QC Batch: 9363

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Nitrate-N	15.4	15.5	mg/L	5	2.50	3.55	95	1	79.6 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 9496

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	124	131	mg/L	1	100	33.5	90	5	75 - 125	20
Dissolved Potassium	108	110	mg/L	1	100	2.59	105	2	75 - 125	20
Dissolved Magnesium	101	106	mg/L	1	100	9.31	92	5	75 - 125	20
Dissolved Sodium	115	118	mg/L	1	100	17.6	97	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 9306

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/L	12.5	11.9	95	90 - 110	2004-05-03
Fluoride		mg/L	2.50	2.40	96	90 - 110	2004-05-03
Sulfate		mg/L	12.5	11.8	94	90 - 110	2004-05-03

Standard (CCV-1)

QC Batch: 9306

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/L	12.5	11.4	91	90 - 110	2004-05-03
Fluoride		mg/L	2.50	2.31	92	90 - 110	2004-05-03
Sulfate		mg/L	12.5	11.5	92	90 - 110	2004-05-03

Standard (ICV-1)

QC Batch: 9318

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.101	101	85 - 115	2004-04-30
Toluene		mg/L	0.100	0.102	102	85 - 115	2004-04-30
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2004-04-30
Xylene		mg/L	0.300	0.310	103	85 - 115	2004-04-30

Standard (CCV-1)

QC Batch: 9318

1459-01

Work Order: 4043013 Jamar

Page Number: 9 of 11 Monument,NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.102	102	85 - 115	2004-04-30
Toluene		mg/L	0.100	0.103	103	85 - 115	2004-04-30
Ethylbenzene		mg/L	0.100	0.104	104	85 - 115	2004-04-30
Xylene		mg/L	0.300	0.312	104	85 - 115	2004-04-30

Standard (CCV-1) QC Batch: 9359

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Naphthalene		mg/L	60.0	61.4	102	80 - 120	2004-05-03
Acenaphthylene		mg/L	60.0	60.3	100	80 - 120	2004-05-03
Acenaphthene		mg/L	60.0	59.9	100	80 - 120	2004-05-03
Fluorene		mg/L	60.0	62.7	104	80 - 120	2004-05-03
Phenanthrene		mg/L	60.0	59.9	100	80 - 120	2004-05-03
Anthracene		mg/L	60.0	60.5	101	80 - 120	2004-05-03
Fluoranthene		mg/L	60.0	60.9	102	80 - 120	2004-05-03
Pyrene		mg/L	60.0	60.9	102	80 - 120	2004-05-03
Benzo(a)anthracene		mg/L	60.0	61.5	102	80 - 120	2004-05-03
Chrysene		mg/L	60.0	61.1	102	80 - 120	2004-05-03
Benzo(b)fluoranthene		mg/L	60.0	64.6	108	80 - 120	2004-05-03
Benzo(k)fluoranthene		mg/L	60.0	58.8	98	80 - 120	2004-05-03
Benzo(a)pyrene		mg/L	60.0	62.3	104	80 - 120	2004-05-03
Indeno(1,2,3-cd)pyrene		mg/L	60.0	63.0	105	80 - 120	2004-05-03
Dibenzo(a,h)anthracene		mg/L	60.0	63.9	106	80 - 120	2004-05-03
Benzo(g,h,i)perylene		mg/L	60.0	62.2	104	80 - 120	2004-05-03

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limit
Nitrobenzene-d5		62.1	mg/L	1	60.0	104	80 - 120
2-Fluorobiphenyl		57.5	mg/L	1	60.0	96	80 - 120
Terphenyl-d14		61.0	mg/L	1	60.0	102	80 - 120

Standard (ICV-1) QC Batch: 9363

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.37	95	90 - 110	2004-05-04

Standard (CCV-1) QC Batch: 9363

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.37	95	90 - 110	2004-05-04

Standard (ICV-1) QC Batch: 9375

Standard (ICV-1)

QC Batch: 9496

1459-01	V	Vork Order: 4 Jamar	Page Number: 10 of 11 Monument,NM				
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2004-05-04
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2004-05-04
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	< 4.00		0 - 200	2004-05-04
Total Alkalinity		mg/L as CaCo3	250	244	98	90 - 110	2004-05-04
St. 11 (CCV 1)		276					
Standard (CCV-1) Q	C Batch: 93	375	CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Standard (CCV-1) Q Param	C Batch: 93 Flag	375 Units					Date Analyzed
			True	Found	Percent	Recovery	
Param		Units	True Conc.	Found Conc.	Percent	Recovery Limits	Analyzed
Param Hydroxide Alkalinity		Units mg/L as CaCo3	True Conc.	Found Conc. <1.00	Percent	Recovery Limits 0 - 200	Analyzed 2004-05-04

Standard (ICV-1)	QC Batch: 9462						
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids	3	mg/L	1000	988.0	99	90 - 110	2004-05-07

Standard (CCV-1)	QC Batch: 9462	2					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids		mg/L	1000	997.0	100	90 - 110	2004-05-07

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Calcium		mg/L	25.0	25.8	103	90 - 110	2004-05-07
Dissolved Potassium		mg/L	25.0	25.1	100	90 - 110	2004-05-07
Dissolved Magnesium		mg/L	25.0	25.5	102	90 - 110	2004-05-07
Dissolved Sodium		mg/L	25.0	25.2	101	90 - 110	2004-05-07

Standard (CCV-1)	QC Batch: 9496						
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Calcium		mg/L	25.0	26.3	105	90 - 110	2004-05-07
Dissolved Potassium		mg/L	25.0	25.2	101	90 - 110	2004-05-07
Dissolved Magnesium		mg/L	25.0	25.9	104	90 - 110	2004-05-07
Dissolved Sodium		mg/L	25.0	25.4	102	90 - 110	2004-05-07

Report Date: May 10, 2004 1459-01

Work Order: 4043013 Jamar Page Number: 11 of 11 Monument,NM

TWS - 246  TWS - 246	6701 Aberdeen Avenue Ste. 9	1 '	155 McCulcheon, Suite H	CHAIN-G-CU	CHAIN-G-CUSTODY AND ANALYSIS REQUEST	LYSIS REQUE	150	
MALYSIS REQUEST  THE NAME SHIP SHIP SHIP SHIP SHIP SHIP SHIP SHIP			Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443	LAB Orar ID	# 40430	(3		
The #200 Fix in the Wall of th	Bare	#	765-2661	ANA	ALYSIS REQUEST	_		<del></del>
Property Names, and the Court	GLA ZD	# Son Fax#: GOS	265-0040					
Process of the control of the contro	616	MM		OZ/B01				
Project Name:  Standing Standi	1011-11-11 John			09 бн		S(	brabard	
Date: Time: Date: Date: Time: Date:	7-01	1	ar	9S Qd	•	儿	sie moil	
Date: Time:    Charles side of COC.   Coc.	want N	Sarrinier : Trickers	Gilbo	CQ CL	0C\625	<del>-</del>	l lerent I	
Date: Time:  LAB USE  ONLY  Tent Basind  Time:  Tent Basind  Time:  Tent Basind  Time:  Tent Basind  Tent Bas	,	<del> </del>	*INE SAMPLING	2001 5001 5001	90 00 851 500 80 80 80 80 80		ib li əmi	- 8
Date: Time: LAB USE REMARKS:  LAB USE REMARKS:  Date: Time: Infact N Headspace V M Headspace V M Limits Are Needed Limit	FIELD CODE	ошА∖∌ши	317	EX 8021B/0 H 418.1/TX H 9270C Si Metals A Sicion QJ	P Pesticida NS Vol 88 Ims SMI Oa\S808 2'E	Hq SST C	П bnuorA г	
by:  Date: Time: LAB USE  ALLABORATORY by/  Date: Time: Index  ALLAB USE  ALLAB USA  ALLAB USE  ALL	W02	۰۸	10 33	4T Aq X 10T 2T	DR DB DB DB	80		
by:  Date: Time:  LAB USE  NULLY  ONLY  ONLY  Headspace Y N  Headspace Y N  Timp: Time: Ti	40-74		- 1			d	ls	
by:  Date: Time:  LAB USE  ACLUE ONLY  WODE  At Labbratory by  Headspace  At Labbratory by  Time: Time: Time: Time: Time: Time  Headspace  At Labbratory by  Headspace  At Labbratory by  Times  Headspace  At Labbratory by  Times  Headspace  At Labbratory by  Times  Times  Headspace  At Labbratory by  Times  Times  Headspace  At Labbratory by  Times  Times  Times  Headspace  At Labbratory by  Times								
by:  Date: Time:  LAB USE  ACCULAGE WODE  ACCULAGE		- 100 C (100 G)						-
by:  Date: Time: LAB USE  ONLY  ONLY  ONLY  Headspace Y N  Headspace Y N  Tomp 3 Correct II Special Reporting  Limits Are Needed  Limits Are Needed  Limits Are Needed								
by:  Date: Time:  LAB USE  ALCLLICA WOLL  ONLY  ONLY  ONLY  ONLY  Headspace  Y M  Headspace  Y M  Tomp 3 C  Limits Are Needed  Limits Are Needed  Limits Are Needed								
by:  Date: Time:  LAB USE  ACCELLED MAD A A A A A A A A A A A A A A A A A				-				
by: Date: Time: LAB USE  ACCULTED  ONLY  by: Date: Time: Intact ONLY  Headspace  V M  Headspace V M  Temp 3 Log-in Review We are Needed  Limits Are Needed  Limits Are Needed  Limits Are Needed  Limits Are Needed  Limits Are Needed  Limits Are Needed								
by:  Date: Time:  Intact ONLY  ONLY  ONLY  ACCULAGE WOS. O  Intact ONLY  Intact ONLY  Intact ONLY  ACCULAGE WOS. O  ONLY  ACCULAGE WOS. O								
by:  Date: Time: Inlact N  Headspace Y M  Headspace Y M  Temp 2 0  Log-in Review W  Log-in	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Received by:	Time:		cur	1 won	1 3	
at Labbratory by Date: Time: Temp\$ 2 Check II Specal Reporting Limits Are Needed Lions listed on reverse side of COC.	-  -	Received by:	Time:	Z			,	
ions listed on reverse side of COC.		Received at Labbratory by		11	Check Il Special I	Reporting		
ORIGINAL COPY.	es constitutes agreement to Terr	ions listec		Carrier # W 5	67	1 11	523-2	

5/10/1 46E 22 1001 523-2 bisbnstz moit freient from standard CHAIN-CF-CUSTODY AND ANALYSIS REQUEST Check If Special Reporting Limits Are Needed 4043013 (Circle or Specify Method No.) **ANALYSIS REQUEST** Pesticides 8081A/608 162 GC/MS Semi: Vol. 8270C/625 2C/W2 AOI 8560B/624 REMARKS: TCLP Pesticides LAB Orar ID# LAB USE ONLY Metals Ag As Ba Cd Cr Pb, Se Hg 6010B/200.7 Log-in Revew Headspace 2001XT\1.814 H9T Temp 2 Intact BTEX 8021B/602 MTBE 8021B/602 120 SAMPLING **BMIT** El Paso, Texas 79932 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 CCutcheon, Suite H DATE GB- 26-0040 500 W- W Time: Date: OIKS WN Date: TraceAnalysis, Inc. Project Name: Fax #: Received at Laboratory by Tand An 3 WATER Received by Received by: # # CONTAINERS Time: Time: If different from above)  $\beta CO - (\beta C)/(\beta C)$ FIELD CODE Morumen Date: Date: 1459-01 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 Lubbock, Texas 79424 6701 Aberdeen Aver Company Name: Project Location: Relinguished by Relinquished by: Contact/Person: AB USE 3383 nvoice to: ONLY Project #: **\*8** Address:

32883

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

Carrier #

1494

Work Order: 4060102 Jamar

Page Number: 1 of 6 Monument,NM

# **Summary Report**

John Bunch

Report Date: June 9, 2004

RESPEC

4775 Indian School Rd. NE

Work Order: 4060102

Suite 300

Albuquerque, NM 87110

Project Location: Monument, NM

Project Name: Project Number: Jamar 1494

			Date	$\operatorname{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
35561	MW-1	water	2004-05-27	17:00	2004-05-29
35562	MW-2	water	2004-05-27	17:15	2004-05-29
35563	MW-3	water	2004-05-27	17:30	2004-05-29
35564	MW-4	water	2004-05-27	17:45	2004-05-29
35565	MW-5	water	2004-05-27	18:00	2004-05-29
35566	MW-6	water	2004-05-27	18:15	2004-05-29

	BTEX					
1	Benzene	Toluene	Ethylbenzene	Xylene		
Sample - Field Code	(mg/L)	(mg/L)	(mg/L)	(mg/L)		
35561 - MW-1	< 0.00100	< 0.00100	< 0.00100	< 0.00100		
35562 - MW-2	< 0.00100	< 0.00100	< 0.00100	< 0.00100		
35563 - MW-3	< 0.00100	< 0.00100	< 0.00100	< 0.00100		
35564 - MW-4	< 0.00100	< 0.00100	< 0.00100	< 0.00100		
35565 - MW-5	< 0.00500	< 0.00500	< 0.00500	< 0.00500		
35566 - MW-6	0.0531	0.0608	0.0591	0.139		

Sample: 35561 - MW-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		304	mg/L as CaCo3	4.00
Total Alkalinity		304	mg/L as CaCo3	4.00
Dissolved Calcium		204	$_{ m mg/L}$	0.500
Dissolved Potassium		10.8	$\mathrm{mg/L}$	0.500
Dissolved Magnesium		83.6	$\mathrm{mg/L}$	0.500
Dissolved Sodium		392	m mg/L	0.500
Chloride		748	m mg/L	0.500
Fluoride		2.91	$\mathrm{mg/L}$	0.200
Sulfate		439	$\mathrm{mg/L}$	0.500
Nitrate-N		< 2.00	$\mathrm{mg/L}$	0.200
Naphthalcne		< 0.000200	m mg/L	0.200
Acenaphthylene		< 0.000200	m mg/L	0.200

 $continued \dots$ 

Report Date: June 9, 2004 1494

Work Order: 4060102

Jamar

Page Number: 2 of 6 Monument,NM

sample 35561 continued ...

Param	Flag	Result	Units	RL
Acenaphthene		< 0.000200	mg/L	0.200
Fluorene		< 0.000200	mg/L	0.200
Phenanthrene		< 0.000200	mg/L	0.200
Anthracene		< 0.000200	${ m mg/L}$	0.200
Fluoranthene		< 0.000200	${ m mg/L}$	0.200
Pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.200
Chrysene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(b)fluoranthene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		< 0.000200	${ m mg/L}$	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.200
Total Dissolved Solids		2200	${ m mg/L}$	10.00
Total Silver		< 0.0125	mg/L	0.0125
Total Arsenic		< 0.0100	$\mathrm{mg/L}$	0.0100
Total Barium		0.569	mg/L	0.0100
Total Cadmium		0.0120	${ m mg/L}$	0.00500
Total Chromium		0.114	${ m mg/L}$	0.0100
Total Mercury		< 0.000200	m mg/L	0.000200
Total Lead		< 0.0100	$\mathrm{mg/L}$	0.0100
Total Selenium		< 0.0100	m mg/L	0.0100

Sample: 35562 - MW-2

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		350	mg/L as CaCo3	4.00
Total Alkalinity		350	mg/L as CaCo3	4.00
Dissolved Calcium		190	$\mathrm{mg/L}$	0.500
Dissolved Potassium		13.4	$\mathrm{mg/L}$	0.500
Dissolved Magnesium		82.8	mg/L	0.500
Dissolved Sodium		476	$\mathrm{mg/L}$	0.500
Chloride		869	$\mathrm{mg/L}$	0.500
Fluoride		< 4.00	$\mathrm{mg/L}$	0.200
Sulfate		717	mg/L	0.500
Nitrate-N		< 20.0	$\mathrm{mg/L}$	0.200
Naphthalene		< 0.000200	$\mathrm{mg/L}$	0.200
Acenaphthylene		< 0.000200	mg/L	0.200
Acenaphthene		< 0.000200	mg/L	0.200
Fluorene		< 0.000200	${ m mg/L}$	0.200
Phenanthrene		< 0.000200	${ m mg/L}$	0.200
Anthracene		< 0.000200	$_{ m mg/L}$	0.200
Fluoranthene		< 0.000200	$\mathrm{mg/L}$	0.200
Pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.200
Chrysene		< 0.000200	m mg/L	0.200
Benzo(b)fluoranthene		< 0.000200	m mg/L	0.200
Benzo(k)fluoranthene		< 0.000200	m mg/L	0.200
Benzo(a)pyrene		< 0.000200	m mg/L	0.200

Report Date: June 9, 2004 1494

Work Order: 4060102

Jamar Jamar

Page Number: 3 of 6 Monument,NM

sample 35562 continued ...

Param	Flag	Result	Units	RL
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(g,h,i)perylene		< 0.000200	$\mathrm{mg/L}$	0.200
Total Dissolved Solids		2990	$\mathrm{mg/L}$	10.00
Total Silver		< 0.0125	$\mathrm{mg/L}$	0.0125
Total Arsenic		< 0.0100	$\mathrm{mg/L}$	0.0100
Total Barium		0.318	$\mathrm{mg/L}$	0.0100
Total Cadmium		< 0.00500	${ m mg/L}$	0.00500
Total Chromium		0.0380	$\mathrm{mg/L}$	0.0100
Total Mercury		< 0.000200	mg/L	0.000200
Total Lead		< 0.0100	$\mathrm{mg/L}$	0.0100
Total Selenium		< 0.0100	m mg/L	0.0100

Sample: 35563 - MW-3

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		332	mg/L as CaCo3	4.00
Total Alkalinity		332	mg/L as CaCo3	4.00
Dissolved Calcium		109	$\mathrm{mg/L}$	0.500
Dissolved Potassium		7.60	m mg/L	0.500
Dissolved Magnesium		60.0	m mg/L	0.500
Dissolved Sodium		299	m mg/L	0.500
Chloride		467	$\mathrm{mg/L}$	0.500
Fluoride		3.56	$\mathrm{mg/L}$	0.200
Sulfate		263	$\mathrm{mg/L}$	0.500
Nitrate-N		< 1.00	$\mathrm{mg/L}$	0.200
Naphthalene		0.000950	$\mathrm{mg/L}$	0.200
Acenaphthylene		< 0.000200	$\mathrm{mg/L}$	0.200
Acenaphthene		< 0.000200	m mg/L	0.200
Fluorene		< 0.000200	$\mathrm{mg/L}$	0.200
Phenanthrene		< 0.000200	mg/L	0.200
Anthracene		< 0.000200	$\mathrm{mg/L}$	0.200
Fluoranthene		< 0.000200	$\mathrm{mg/L}$	0.200
Pyrene		< 0.000200	mg/L	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.200
Chrysene		< 0.000200	mg/L	0.200
$\operatorname{Benzo}(\operatorname{b})$ fluoranthene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(k)fluoranthene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
${f Dibenzo(a,h)}$ anthracene		< 0.000200	$\mathrm{mg/L}$	0.200
$\mathrm{Benzo}(\mathrm{g,h,i})$ perylene		< 0.000200	mg/L	0.200
Total Dissolved Solids		1616	mg/L	10.00
Total Silver		< 0.0125	${ m mg/L}$	0.0125
Total Arsenic		< 0.0100	$\mathrm{mg/L}$	0.0100
Total Barium		0.508	mg/L	0.0100
Total Cadmium		0.00600	mg/L	0.00500
Total Chromium		0.0680	$\mathrm{mg/L}$	0.0100
Total Mercury		< 0.000200	m mg/L	0.000200
Total Lead		< 0.0100	m mg/L	0.0100
				continued

Work Order: 4060102 Jamar

Page Number: 4 of 6 Monument, NM

1494

sample 35563 continued ...

Param	Flag	Result	Units	RL
Total Selenium		< 0.0100	mg/L	0.0100

### Sample: 35564 - MW-4

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		314	mg/L as CaCo3	4.00
Total Alkalinity		314	mg/L as $CaCo3$	4.00
Dissolved Calcium		123	$_{ m mg/L}$	0.500
Dissolved Potassium		5.71	$_{ m mg/L}$	0.500
Dissolved Magnesium		73.9	$_{ m mg/L}$	0.500
Dissolved Sodium		243	${ m mg/L}$	0.500
Chloride		511	$_{ m mg/L}$	0.500
Fluoride		3.87	$_{ m mg/L}$	0.200
Sulfate		236	$_{ m mg/L}$	0.500
Nitrate-N		< 1.00	$_{ m mg/L}$	0.200
Naphthalene		< 0.000200	$_{ m mg/L}$	0.200
Acenaphthylene		< 0.000200	${ m mg/L}$	0.200
Acenaphthene		< 0.000200	${ m mg/L}$	0.200
Fluorene		< 0.000200	${ m mg/L}$	0.200
Phenanthrene		< 0.000200	mg/L	0.200
Anthracene		< 0.000200	$_{ m mg/L}$	0.200
Fluoranthene		< 0.000200	${ m mg/L}$	0.200
Pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(a)anthracene		< 0.000200	$_{ m mg/L}$	0.200
Chrysene		< 0.000200	${ m mg/L}$	0.200
Benzo(b)fluoranthene		< 0.000200	${ m mg/L}$	0.200
Benzo(k)fluoranthene		< 0.000200	$_{ m mg/L}$	0.200
Benzo(a)pyrene		< 0.000200	${ m mg/L}$	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	m mg/L	0.200
${f Dibenzo(a,h)}$ anthracene		< 0.000200	$\mathrm{mg/L}$	0.200
$\mathrm{Benzo}(g,\!h,\!i)$ perylene		< 0.000200	m mg/L	0.200
Total Dissolved Solids		1716	m mg/L	10.00
Total Silver		< 0.0125	m mg/L	0.0125
Total Arsenic		< 0.0100	m mg/L	0.0100
Total Barium		0.410	${ m mg/L}$	0.0100
Total Cadmium		< 0.00500	$\mathrm{mg/L}$	0.00500
Total Chromium		0.0150	${ m mg/L}$	0.0100
Total Mercury		< 0.000200	$_{ m mg/L}$	0.000200
Total Lead		< 0.0100	${ m mg/L}$	0.0100
Total Selenium		< 0.0100	$_{ m mg/L}$	0.0100

### Sample: 35565 - MW-5

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		330	mg/L as CaCo3	4.00
Total Alkalinity		330	mg/L as CaCo3	4.00

Work Order: 4060102

Jamar

Page Number: 5 of 6  $_{Monument,NM} \\$ 

 $sample\ 35565\ continued\ \dots$ 

Param	Flag	Result	Units	RL
Dissolved Calcium		135	mg/L	0.500
Dissolved Potassium		9.01	$\mathrm{mg/L}$	0.500
Dissolved Magnesium		110	mg/L	0.500
Dissolved Sodium		297	mg/L	0.500
Chloride		694	mg/L	0.500
Fluoride		3.62	m mg/L	0.200
Sulfate		252	$\mathrm{mg/L}$	0.500
Nitrate-N		3.26	$\mathrm{mg/L}$	0.200
Naphthalene		< 0.000200	m mg/L	0.200
Acenaphthylene		< 0.000200	mg/L	0.200
Acenaphthene		< 0.000200	mg/L	0.200
Fluorene		< 0.000200	$\mathrm{mg/L}$	0.200
Phenanthrene		< 0.000200	mg/L	0.200
Anthracene		< 0.000200	mg/L	0.200
Fluoranthene		< 0.000200	mg/L	0.200
Pyrene		< 0.000200	mg/L	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.200
Chrysene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(b)fluoranthene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.200
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.200
Total Dissolved Solids		1952	mg/L	10.00
Total Silver		< 0.0125	mg/L	0.0125
Total Arsenic		< 0.0100	mg/L	0.0100
Total Barium		1.85	mg/L	0.0100
Total Cadmium		< 0.00500	mg/L	0.00500
Total Chromium		0.0410	mg/L	0.0100
Total Mercury		< 0.000200	mg/L	0.000200
Total Lead		< 0.0100	mg/L	0.0100
Total Selenium		< 0.0100	m mg/L	0.0100

Sample: 35566 - MW-6

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		332	mg/L as CaCo3	4.00
Total Alkalinity		332	mg/L as CaCo3	4.00
Dissolved Calcium		97.9	$\mathrm{mg/L}$	0.500
Dissolved Potassium		7.36	$\mathrm{mg/L}$	0.500
Dissolved Magnesium		62.8	$\mathrm{mg/L}$	0.500
Dissolved Sodium		409	$\mathrm{mg/L}$	0.500
Chloride		639	$\mathrm{mg/L}$	0.500
Fluoride		3.89	m mg/L	0.200
Sulfate		329	$\mathrm{mg/L}$	0.500
Nitrate-N		< 1.00	$\mathrm{mg/L}$	0.200
Naphthalene		0.000720	$\mathrm{mg/L}$	0.200
Acenaphthylene		< 0.000200	$\mathrm{mg/L}$	0.200
Acenaphthene		< 0.000200	m mg/L	0.200

Report Date: June 9, 2004 1494

Work Order: 4060102 Jamar Page Number: 6 of 6 Monument,NM

sample 35566 continued ...

Param	Flag	Result	Units	RL
Fluorene		< 0.000200	mg/L	0.200
Phenanthrene		< 0.000200	$_{ m mg/L}$	0.200
Anthracene		< 0.000200	m mg/L	0.200
Fluoranthene		< 0.000200	m mg/L	0.200
Pyrene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(a)anthracene		< 0.000200	$\mathrm{mg/L}$	0.200
Chrysene		< 0.000200	$\mathrm{mg/L}$	0.200
Benzo(b)fluoranthene		< 0.000200	m mg/L	0.200
Benzo(k)fluoranthene		< 0.000200	$_{ m mg/L}$	0.200
Benzo(a)pyrene		< 0.000200	$_{ m mg/L}$	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	$_{ m mg/L}$	0.200
Dibenzo(a,h)anthracene		< 0.000200	$_{ m mg/L}$	0.200
Benzo(g,h,i)perylene		< 0.000200	$_{ m mg/L}$	0.200
Total Dissolved Solids		2152	$_{ m mg/L}$	10.00
Total Silver		< 0.0125	$_{ m mg/L}$	0.0125
Total Arsenic		< 0.0100	$_{ m mg/L}$	0.0100
Total Barium		0.841	$_{ m mg/L}$	0.0100
Total Cadmium		0.0150	$_{ m mg/L}$	0.00500
Total Chromium		0.117	$_{ m mg/L}$	0.0100
Total Mercury		< 0.000200	m mg/L	0.000200
Total Lead		< 0.0100	$_{ m mg/L}$	0.0100
Total Selenium		< 0.0100	$_{ m mg/L}$	0.0100

6701 Aberdeen Avenue, Suite 9 155 McCutcheon, Suite H

Lubbock, Texas 79424 El Paso, Texas 79932 800 • 378 • 1296 888 • 588 • 3443

806 • 794 • 1296 915 • 585 • 3443 FAX 806 • 794 • 1298

Work Order:

Report Date: June 9, 2004

4060102

E-Mail: lab@traceanalysis.com

FAX 915 • 585 • 4944

## **Analytical and Quality Control Report**

John Bunch

RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location: Monument, NM

Project Name: Project Number: Jamar 1494

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
35561	MW-1	water	2004-05-27	17:00	2004-05-29
35562	MW-2	water	2004-05-27	17:15	2004-05-29
35563	MW-3	water	2004-05-27	17:30	2004-05-29
35564	MW-4	water	2004-05-27	17:45	2004-05-29
35565	MW-5	water	2004-05-27	18:00	2004-05-29
35566	MW-6	water	2004-05-27	18:15	2004-05-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 31 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Work Order: 4060102 Jamar Page Number: 2 of 31 Monument,NM

## **Analytical Report**

Sample: 35561 - MW-1

Analysis: Alkalinity
QC Batch: 10258
Prep Batch: 9077

Analytical Method: SM 2320B Date Analyzed: 2004-06-04 Date Prepared: 2004-06-04 Prep Method: N/A Analyzed By: RS Prepared By: RS

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		304	mg/L as CaCo3	1	4.00
Total Alkalinity		304	mg/L as CaCo3	1	4.00

Sample: 35561 - MW-1

Analysis: BTEX QC Batch: 10177 Prep Batch: 9009 Analytical Method: S 8021B
Date Analyzed: 2004-06-01
Date Prepared: 2004-06-01

Prep Method: S 5030B Analyzed By: MT Prepared By: MT

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.00100	mg/L	1	0.00100
Toluene		< 0.00100	mg/L	1	0.00100
Ethylbenzene		< 0.00100	mg/L	1	0.00100
Xylene		< 0.00100	mg/L	1	0.00100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.103	mg/L	1	0.100	103	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0752	mg/L	1	0.100	75	53.1 - 149

Sample: 35561 - MW-1

Analysis: Cations QC Batch: 10313 Prep Batch: 9020 Analytical Method: S 6010B
Date Analyzed: 2004-06-08
Date Prepared: 2004-06-03

Prep Method: S 3005A Analyzed By: BC Prepared By: TP

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		204	mg/L	1	0.500
Dissolved Potassium		10.8	mg/L	1	0.500
Dissolved Magnesium		83.6	mg/L	1	0.500
Dissolved Sodium		392	mg/L	1	0.500

Sample: 35561 - MW-1

Analysis: Ion Chromatography

QC Batch: 10155 Prep Batch: 8991 Analytical Method: E 300.0
Date Analyzed: 2004-06-02
Date Prepared: 2004-06-01

Prep Method: N/A Analyzed By: JSW Prepared By: JSW

1494

Work Order: 4060102

Jamar

Page Number: 3 of 31 Monument,NM

QC Batch: Prep Batch:

10277 9091

Date Analyzed: Date Prepared:

2004-06-08 2004-06-07 Analyzed By: Prepared By:

JSW JSW

ВI

		ICL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		748	mg/L	100	0.500
Fluoride		2.91	mg/L	10	0.200
Sulfate		439	mg/L	10	0.500

Sample: 35561 - MW-1

Analysis: QC Batch: NO3 (IC) Analytical Method: E 300.0 10155 Date Analyzed:

2004-06-02 2004-06-01

mg/L

Prep Method: N/A Analyzed By: JSW

Prep Batch:

8991

Date Prepared:

RL

Units

Prepared By: **JSW** 

Parameter Flag

Result Nitrate-N < 2.00

Dilution RL0.200

Sample: 35561 - MW-1

Analysis: QC Batch:

PAH 10247 Prep Batch: 8990

Analytical Method: S 8270C Date Analyzed:

Date Prepared:

2004-06-04 2004-06-02 Prep Method: S 3510C Analyzed By: RC Prepared By: RC

RL

Parameter	Flag	Result	Units	Dilution	RL
Naphthalene		< 0.000200	mg/L	0.001	0.200
Acenaphthylene		< 0.000200	mg/L	0.001	0.200
Acenaphthene		< 0.000200	mg/L	0.001	0.200
Fluorene		< 0.000200	mg/L	0.001	0.200
Phenanthrene		< 0.000200	mg/L	0.001	0.200
Anthracene		< 0.000200	mg/L	0.001	0.200
Fluoranthene		< 0.000200	mg/L	0.001	0.200
Pyrene		< 0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.001	0.200
Chrysene		< 0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.001	0.200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0795	mg/L	0.001	80.0	99	0 - 128
2-Fluorobiphenyl		0.0741	mg/L	0.001	80.0	93	0 - 140
Terphenyl-d14		0.0772	mg/L	0.001	80.0	96	0 - 165

Sample: 35561 - MW-1

1494

Work Order: 4060102

Jamar

Page Number: 4 of 31

Monument,NM

Analysis: QC Batch: Prep Batch: TDS 10162 8997 Analytical Method:
Date Analyzed:

Date Prepared:

RL

SM 2540C

2004-06-02 2004-06-01 Prep Method: N/A Analyzed By: RS

Пера

Prepared By: JSW

Parameter Flag Result
Total Dissolved Solids 2200

Units mg/L 
 Dilution
 RL

 5
 10.00

Sample: 35561 - MW-1

Analysis: Total 8 Metals
QC Batch: 10220
Prep Batch: 9001

Prep Batch: 9001
Analysis: Total 8 Metals
QC Batch: 10318
Prep Batch: 9123

Analytical Method: S 6010B
Date Analyzed: 2004-06-04
Date Prepared: 2004-06-02

Analytical Method: S 7470A
Date Analyzed: 2004-06-09
Date Prepared: 2004-06-08

Prep Method: S 3010A Analyzed By: RR

Prepared By: TP
Prep Method: N/A
Analyzed By: BC
Prepared By: BC

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.0125	mg/L	1	0.0125
Total Arsenic		< 0.0100	mg/L	1	0.0100
Total Barium		0.569	mg/L	1	0.0100
Total Cadmium		0.0120	mg/L	1	0.00500
Total Chromium		0.114	mg/L	1	0.0100
Total Mercury		< 0.000200	mg/L	1	0.000200
Total Lead		< 0.0100	mg/L	1	0.0100
Total Selenium		< 0.0100	mg/L	1	0.0100

Sample: 35562 - MW-2

Analysis: Alkalinity QC Batch: 10258 Prep Batch: 9077 Analytical Method: SM 2320B Date Analyzed: 2004-06-04 Date Prepared: 2004-06-04 Prep Method: N/A Analyzed By: RS Prepared By: RS

RL

		KL			
Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity	-	<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		350	mg/L as CaCo3	1	4.00
Total Alkalinity		350	mg/L as CaCo3	1	4.00

Sample: 35562 - MW-2

Analysis: BTEX QC Batch: 10177 Prep Batch: 9009

Analytical Method: State Analyzed: 22
Date Prepared: 22

S 8021B 2004-06-01 2004-06-01 Prep Method: S 5030B Analyzed By: MT Prepared By: MT

RL

 Parameter
 Flag
 Result
 Units
 Dilution
 RL

 Benzene
 <0.00100</td>
 mg/L
 1
 0.00100

1494

Work Order: 4060102

Jamar

Page Number: 5 of 31

Monument,NM

### sample 35562 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Toluene		< 0.00100	mg/L	1	0.00100
Ethylbenzene		< 0.00100	mg/L	1	0.00100
Xylene		< 0.00100	mg/L	1	0.00100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0799	mg/L	1	0.100	80	53.1 - 149

### Sample: 35562 - MW-2

Analysis: Cations
QC Batch: 10313
Prep Batch: 9020

Analytical Method: S 6010B
Date Analyzed: 2004-06-08
Date Prepared: 2004-06-03

Prep Method: S 3005A Analyzed By: BC Prepared By: TP

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		190	mg/L	1	0.500
Dissolved Potassium		13.4	mg/L	1	0.500
Dissolved Magnesium		82.8	mg/L	1	0.500
Dissolved Sodium		476	mg/L	1	0.500

### Sample: 35562 - MW-2

Prep Method: N/A Analysis: Ion Chromatography Analytical Method: E 300.0 Analyzed By: JSW QC Batch: 10155 Date Analyzed: 2004-06-02 8991 Prepared By: Prep Batch: Date Prepared: JSW2004-06-01 QC Batch: 10277 Date Analyzed: Analyzed By: JSW 2004-06-08 Prep Batch: 9091 Date Prepared: 2004-06-07 Prepared By: JSW

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		869	mg/L	100	0.500
Fluoride		< 4.00	mg/L	20	0.200
Sulfate		717	mg/L	20	0.500

### Sample: 35562 - MW-2

Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A QC Batch: 10155 Date Analyzed: 2004-06-02 Analyzed By: JSW Prep Batch: 8991 Date Prepared: 2004-06-01 Prepared By: JSW

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Nitrate-N		<20.0	mg/L	100	0.200

Work Order: 4060102

Jamar

Page Number: 6 of 31 Monument,NM

Sample: 35562 - MW-2

Analysis: PAH QC Batch: 10247 Prep Batch: 8990 Analytical Method: S 8270C
Date Analyzed: 2004-06-04
Date Prepared: 2004-06-02

Prep Method: S 3510C Analyzed By: RC Prepared By: RC

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Naphthalene		< 0.000200	mg/L	0.001	0.200
Acenaphthylene		< 0.000200	mg/L	0.001	0.200
Acenaphthene		< 0.000200	mg/L	0.001	0.200
Fluorene		< 0.000200	mg/L	0.001	0.200
Phenanthrene		< 0.000200	mg/L	0.001	0.200
Anthracene		< 0.000200	mg/L	0.001	0.200
Fluoranthene		< 0.000200	mg/L	0.001	0.200
Pyrene		< 0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.001	0.200
Chrysene		< 0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.001	0.200

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0707	mg/L	0.001	80.0	88	0 - 128
2-Fluorobiphenyl		0.0676	mg/L	0.001	80.0	84	0 - 140
Terphenyl-d14		0.0731	mg/L	0.001	80.0	91	0 - 165

Sample: 35562 - MW-2

Analysis: TDS Analytical Method: SM 2: QC Batch: 10162 Date Analyzed: 2004-Prep Batch: 8997 Date Prepared: 2004-

 SM 2540C
 Prep Method:
 N/A

 2004-06-02
 Analyzed By:
 RS

 2004-06-01
 Prepared By:
 JSW

RLParameterFlagResultUnitsDilutionRLTotal Dissolved Solids2990mg/L510.00

Sample: 35562 - MW-2

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3010A QC Batch: 10220 Date Analyzed: 2004-06-04 Analyzed By: RR Prep Batch: 9001 Date Prepared: 2004-06-02 Prepared By: TP Analysis: Total 8 Metals Analytical Method: S 7470A Prep Method: N/A QC Batch: 10318 Date Analyzed: 2004-06-09 Analyzed By: BCPrep Batch: 9123 Date Prepared: Prepared By: BC2004-06-08

Work Order: 4060102 Jamar

Page Number: 7 of 31 Monument, NM

sample 35562 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.0125	mg/L	1	0.0125
Total Arsenic		< 0.0100	mg/L	1	0.0100
Total Barium		0.318	mg/L	1	0.0100
Total Cadmium		< 0.00500	mg/L	1	0.00500
Total Chromium		0.0380	mg/L	1	0.0100
Total Mercury		< 0.000200	mg/L	1	0.000200
Total Lead		< 0.0100	mg/L	1	0.0100
Total Selenium		< 0.0100	mg/L	1	0.0100

Sample: 35563 - MW-3

Analysis: Alkalinity QC Batch:

10258 Prep Batch: 9077

Analytical Method: SM 2320B Date Analyzed:

Date Prepared:

2004-06-04 2004-06-04

Prep Method: N/A Analyzed By: RS

Prepared By: RS

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		332	mg/L as CaCo3	1	4.00
Total Alkalinity		332	mg/L as CaCo3	1	4.00

Sample: 35563 - MW-3

Analysis: BTEX QC Batch: 10177 Prep Batch: 9009

Analytical Method: Date Analyzed: Date Prepared:

S 8021B 2004-06-01 2004-06-01 Prep Method: S 5030B Analyzed By: MT

Prepared By: MT

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.00100	mg/L	1	0.00100
Toluene		< 0.00100	mg/L	1	0.00100
Ethylbenzene		< 0.00100	mg/L	1	0.00100
Xylene		< 0.00100	mg/L	1	0.00100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.0870	mg/L	1	0.100	87	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0583	mg/L	1	0.100	58	53.1 - 149

Sample: 35563 - MW-3

Analysis: Cations QC Batch: 10313

Analytical Method: S 6010B Date Analyzed: 2004-06-08 Prep Method: S 3005A Analyzed By: BC

1494

Work Order: 4060102 Jamar Page Number: 8 of 31 Monument,NM

Prep Batch: 9020 Date Prepared: 2004-06-03 Prepared By: TP

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		109	mg/L	1	0.500
Dissolved Potassium		7.60	mg/L	1	0.500
Dissolved Magnesium		60.0	mg/L	1	0.500
Dissolved Sodium		299	mg/L	1	0.500

Sample: 35563 - MW-3

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A QC Batch: 10155 Date Analyzed: 2004-06-02 Analyzed By: **JSW** Prep Batch: 8991 Date Prepared: 2004-06-01 Prepared By: **JSW** QC Batch: 10277 Date Analyzed: 2004-06-08 Analyzed By: JSW Prep Batch: 9091 Date Prepared: 2004-06-07 Prepared By: **JSW** 

RL RLResult Units Dilution Parameter Flag Chloride 0.500 467 mg/L 50 Fluoride 3.56 5 0.200 mg/L 50 Sulfate 263 mg/L 0.500

Sample: 35563 - MW-3

Analysis: Analytical Method: E 300.0 Prep Method: N/A NO3 (IC) QC Batch: 10155 Date Analyzed: 2004-06-02 Analyzed By: **JSW** Prep Batch: 8991 Date Prepared: 2004-06-01 Prepared By: **JSW** 

Sample: 35563 - MW-3

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C OC Batch: 10247 Date Analyzed: 2004-06-04 Analyzed By: RC Prep Batch: 8990 Date Prepared: 2004-06-02 Prepared By: RC

RL Parameter Flag Dilution Result Units RL 0.200 Naphthalene 0.001 0.000950 mg/L Acenaphthylene < 0.000200 mg/L 0.001 0.200 Acenaphthene < 0.000200 0.001 0.200 mg/L Fluorene < 0.000200 0.001 0.200 mg/L Phenanthrene < 0.000200 0.001 0.200 mg/L Anthracene < 0.000200 mg/L 0.001 0.200 Fluoranthene < 0.000200 0.001 0.200 mg/L Pyrene 0.001 0.200 < 0.000200 mg/LBenzo(a)anthracene < 0.000200 0.001 0.200 mg/L

Work Order: 4060102 Jamar Page Number: 9 of 31 Monument,NM

### sample 35563 continued ...

		. RL			
Parameter	Flag	Result	Units	Dilution	RL
Chrysene		< 0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.001	0.200

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0489	mg/L	0.001	80.0	61	0 - 128
2-Fluorobiphenyl		0.0485	mg/L	0.001	80.0	61	0 - 140
Terphenyl-d14		0.0535	mg/L	0.001	80.0	67	0 - 165

#### Sample: 35563 - MW-3

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A QC Batch: 10162 Date Analyzed: 2004-06-02 Analyzed By: RS Prep Batch: 8997 Date Prepared: 2004-06-01 Prepared By: JSW

RLParameterFlagResultUnitsDilutionRLTotal Dissolved Solids1616mg/L410.00

### Sample: 35563 - MW-3

Prep Method: S 3010A Analysis: Total 8 Metals Analytical Method: S 6010B QC Batch: 10220 Date Analyzed: 2004-06-04 Analyzed By: RR Prep Batch: 9001 Date Prepared: 2004-06-02 Prepared By: TP Analysis: Total 8 Metals Analytical Method: S 7470A Prep Method: N/A QC Batch: 10318 Date Analyzed: 2004-06-09 Analyzed By: BC Prep Batch: 9123 Date Prepared: Prepared By: 2004-06-08 BC

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.0125	mg/L	1	0.0125
Total Arsenic		< 0.0100	mg/L	1	0.0100
Total Barium		0.508	mg/L	1	0.0100
Total Cadmium		0.00600	mg/L	1	0.00500
Total Chromium		0.0680	mg/L	1	0.0100
Total Mercury		< 0.000200	mg/L	1	0.000200
Total Lead		< 0.0100	mg/L	1	0.0100
Total Selenium		< 0.0100	mg/L	1	0.0100

### Sample: 35564 - MW-4

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A

1494

Work Order: 4060102

Jamar

Page Number: 10 of 31 Monument, NM

OC Batch: Prep Batch: 9077

10258

Date Analyzed: Date Prepared:

2004-06-04 2004-06-04 Analyzed By: RS

Prepared By: RS

ŔĪ

		ΚL			
Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		314	mg/L as CaCo3	1	4.00
Total Alkalinity		314	mg/L as CaCo3	1	4.00

Sample: 35564 - MW-4

Analysis: QC Batch:

**BTEX** 10177 Prep Batch: 9009

Analytical Method: S 8021B Date Analyzed:

Date Prepared:

2004-06-01 2004-06-01

Prep Method: S 5030B

Analyzed By: Prepared By: MT

MT

		KL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.00100	mg/L	1	0.00100
Toluene		< 0.00100	mg/L	1	0.00100
Ethylbenzene		< 0.00100	mg/L	1	0.00100
Xylene		< 0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	1145	0.114	mg/L	1	0.100	114	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0745	mg/L	1	0.100	74	53.1 - 149

Sample: 35564 - MW-4

Analysis: QC Batch:

Cations 10313 Prep Batch: 9020

Analytical Method: Date Analyzed:

Date Prepared:

S 6010B 2004-06-08 2004-06-03 Prep Method: S 3005A

Analyzed By: BCPrepared By:

RΙ

		IXL.			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		123	mg/L	1	0.500
Dissolved Potassium		5.71	mg/L	1	0.500
Dissolved Magnesium		73.9	mg/L	1	0.500
Dissolved Sodium		243	mg/L	1	0.500

Date Analyzed:

Date Prepared:

Sample: 35564 - MW-4

Analysis: Ion Chromatography QC Batch: 10155 Prep Batch: 8991

QC Batch: 10277 Prep Batch: 9091

Analytical Method: E 300.0 Date Analyzed: 2004-06-02 Date Prepared: 2004-06-01

2004-06-08 2004-06-07 Prep Method: N/A Analyzed By: JSW

Prepared By: **JSW** Analyzed By: JSW Prepared By: JSW

1494

Work Order: 4060102

Jamar

Page Number: 11 of 31

Monument,NM

•		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		511	mg/L	50	0.500
Fluoride		3.87	mg/L	5	0.200
Sulfate		236	mg/L	50	0.500

Sample: 35564 - MW-4

Analysis: NO3 (IC) QC Batch: 10155 Prep Batch: 8991 Analytical Method: E 300.0 Date Analyzed: 2004-06-02 Date Prepared: 2004-06-01 Prep Method: N/A
Analyzed By: JSW
Prepared By: ISW

Parameter Flag Re

RL Result Units

mg/L

Prepared By: JSW

RL

0.200

Sample: 35564 - MW-4

Analysis: PAH QC Batch: 10247 Prep Batch: 8990

Nitrate-N

Analytical Method: S 8270C
Date Analyzed: 2004-06-04
Date Prepared: 2004-06-02

<1.00

Prep Method: S 3510C Analyzed By: RC Prepared By: RC

Dilution

5

0.001

RL Parameter Flag Result Units Dilution RL Naphthalene < 0.000200 mg/L 0.001 0.200 Acenaphthylene 0.001 < 0.000200 mg/L 0.200 Acenaphthene < 0.000200 mg/L 0.001 0.200 Fluorene < 0.000200 mg/L 0.001 0.200 Phenanthrene 0.001 0.200 < 0.000200 mg/L Anthracene 0.200 < 0.000200 mg/L 0.001 Fluoranthene < 0.000200 mg/L 0.001 0.200 Pyrene < 0.000200 mg/L0.001 0.200 Benzo(a)anthracene < 0.000200 mg/L 0.001 0.200 Chrysene < 0.000200 mg/L 0.0010.200 Benzo(b)fluoranthene < 0.000200 mg/L 0.001 0.200 Benzo(k)fluoranthene < 0.000200 mg/L 0.001 0.200 Benzo(a)pyrene < 0.000200 mg/L 0.0010.200 Indeno(1,2,3-cd)pyrene 0.200 < 0.000200 mg/L 0.001Dibenzo(a,h)anthracene < 0.000200 mg/L 0.0010.200

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0634	mg/L	0.001	80.0	79	0 - 128
2-Fluorobiphenyl		0.0591	mg/L	0.001	80.0	74	0 - 140
Terphenyl-d14		0.0741	mg/L	0.001	80.0	93	0 - 165

mg/L

< 0.000200

Sample: 35564 - MW-4

Benzo(g,h,i)perylene

Analysis: TDS QC Batch: 10162

Analytical Method: SM 2540C Date Analyzed: 2004-06-02 Prep Method: N/A Analyzed By: RS

0.200

1494

Work Order: 4060102

Jamar

Page Number: 12 of 31 Monument,NM

Prep Batch: 8997

Date Prepared:

2004-06-01

Prepared By: JSW

 T-1	ח

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Dissolved Solids		1716	mg/L	4	10.00

### Sample: 35564 - MW-4

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10220	Date Analyzed:	2004-06-04	Analyzed By:	RR
Prep Batch:	9001	Date Prepared:	2004-06-02	Prepared By:	TP
Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	10318	Date Analyzed:	2004-06-09	Analyzed By:	BC
Prep Batch:	9123	Date Prepared:	2004-06-08	Prepared By:	BC

### RI.

		KL			
Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.0125	mg/L	1	0.0125
Total Arsenic		< 0.0100	mg/L	1	0.0100
Total Barium		0.410	mg/L	1	0.0100
Total Cadmium		< 0.00500	mg/L	1	0.00500
Total Chromium		0.0150	mg/L	1	0.0100
Total Mercury		< 0.000200	mg/L	1	0.000200
Total Lead		< 0.0100	mg/L	1	0.0100
Total Selenium		< 0.0100	mg/L	1	0.0100

### Sample: 35565 - MW-5

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	10258	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9077	Date Prepared:	2004-06-04	Prepared By:	RS

Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		330	mg/L as CaCo3	1	4.00
Total Alkalinity		330	mg/L as CaCo3	1	4.00

### Sample: 35565 - MW-5

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	10182	Date Analyzed:	2004-06-02	Analyzed By:	MT
Prep Batch:	9012	Date Prepared:	2004-06-02	Prepared By:	MT

RL

Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.00500	mg/L	5	0.00100
Toluene		< 0.00500	mg/L	5	0.00100
Ethylbenzene		< 0.00500	mg/L	5	0.00100

1494

Work Order: 4060102 Jamar

Page Number: 13 of 31 Monument,NM

sample 35565 continued ...

Parameter	Flag	R Resu		Units	Di	lution	RL
Xylene		< 0.0050	00	mg/L		5	0.00100
	El	D. I.	<b>3.7</b> . **	D71 - 1	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	1	0.599	mg/L	5	0.100	120	79.7 - 119
4-Bromofluorobenzene (4-BF)	3)	0.498	mg/L	5	0.100	100	65.6 - 141

### Sample: 35565 - MW-5

Analysis:	Cations
QC Batch:	10313
Prep Batch:	9020

Analytical Method: S 6010B
Date Analyzed: 2004-06-08
Date Prepared: 2004-06-03

Prep Method: S 3005A Analyzed By: BC Prepared By: TP

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		135	mg/L	1	0.500
Dissolved Potassium		9.01	mg/L	1	0.500
Dissolved Magnesium		110	mg/L	1	0.500
Dissolved Sodium		297	mg/L	1	0.500

### Sample: 35565 - MW-5

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10155	Date Analyzed:	2004-06-02	Analyzed By:	JSW
Prep Batch:	8991	Date Prepared:	2004-06-01	Prepared By:	JSW
QC Batch:	10277	Date Analyzed:	2004-06-08	Analyzed By:	JSW
Prep Batch:	9091	Date Prepared:	2004-06-07	Prepared By:	JSW
		RL			

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		694	mg/L	50	0.500
Fluoride		3.62	mg/L	5	0.200
Sulfate		252	mg/L	50	0.500

### Sample: 35565 - MW-5

•							
Analysis:	NO3 (IC)		Analytical Method:	E 300.0		Prep Method:	N/A
QC Batch:	10155		Date Analyzed:	2004-06-02		Analyzed By:	JSW
Prep Batch:	8991		Date Prepared:	2004-06-01		Prepared By:	JSW
			RL				
Parameter		Flag	Result	Units	Dilution		RL
Nitrate-N			3.26	mg/L	5		0.200

<sup>&</sup>lt;sup>1</sup>High surrogate recovery due to peak interference.

Work Order: 4060102

Jamar

Page Number: 14 of 31 Monument, NM

### Sample: 35565 - MW-5

Analysis: PAH QC Batch: 10247 Prep Batch: 8990

Analytical Method: S 8270C Date Analyzed: 2004-06-04 Date Prepared: 2004-06-02 Prep Method: S 3510C Analyzed By: RC Prepared By: RC

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Naphthalene		< 0.000200	mg/L	0.001	0.200
Acenaphthylene		< 0.000200	mg/L	0.001	0.200
Acenaphthene		< 0.000200	mg/L	0.001	0.200
Fluorene		< 0.000200	mg/L	0.001	0.200
Phenanthrene		< 0.000200	mg/L	0.001	0.200
Anthracene		< 0.000200	mg/L	0.001	0.200
Fluoranthene		< 0.000200	mg/L	0.001	0.200
Pyrene		< 0.000200	mg/L	0.001	0.200
Benzo(a)anthracene		< 0.000200	mg/L	0.001	0.200
Chrysene		< 0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.001	0.200

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5	7.7.	0.0737	mg/L	0.001	80.0	92	0 - 128
2-Fluorobiphenyl		0.0694	mg/L	0.001	80.0	87	0 - 140
Terphenyl-d14		0.0779	mg/L	0.001	80.0	97	0 - 165

### Sample: 35565 - MW-5

Analysis: TDS QC Batch: 10162 Prep Batch: 8997

Analytical Method: SM 2540C Date Analyzed: 2004-06-02 Date Prepared: 2004-06-01 Prep Method: N/A Analyzed By: RS Prepared By: JSW

S 3010A

TP N/A

BC

BC

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Dissolved Solids		1952	mg/L	4	10.00

### Sample: 35565 - MW-5

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: QC Batch: 10220 Date Analyzed: 2004-06-04 Analyzed By: RR Prep Batch: 9001 Date Prepared: 2004-06-02 Prepared By: Analysis: Total 8 Metals Analytical Method: S 7470A Prep Method: QC Batch: 10318 Date Analyzed: Analyzed By: 2004-06-09 Prep Batch: 9123 Date Prepared: Prepared By: 2004-06-08

Work Order: 4060102 Jamar Page Number: 15 of 31 Monument, NM

sample 35565 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Tiag	Kesuit	Ullits	Dilution	KL
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.0125	mg/L	1	0.0125
Total Arsenic		< 0.0100	mg/L	1	0.0100
Total Barium		1.85	mg/L	1	0.0100
Total Cadmium		< 0.00500	mg/L	1	0.00500
Total Chromium		0.0410	mg/L	1	0.0100
Total Mercury		< 0.000200	mg/L	1	0.000200
Total Lead		< 0.0100	mg/L	1	0.0100
Total Selenium		< 0.0100	mg/L	1	0.0100

### Sample: 35566 - MW-6

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A QC Batch: 10258 Date Analyzed: 2004-06-04 Analyzed By: RS Prep Batch: 9077 Date Prepared: 2004-06-04 Prepared By: RS

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		332	mg/L as CaCo3	1	4.00
Total Alkalinity		332	mg/L as CaCo3	1	4.00

### Sample: 35566 - MW-6

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5030B QC Batch: 10177 Date Analyzed: 2004-06-01 Analyzed By: MT Prep Batch: 9009 Date Prepared: 2004-06-01 Prepared By: MT

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		0.0531	mg/L	1	0.00100
Toluene		0.0608	mg/L	1	0.00100
Ethylbenzene		0.0591	mg/L	1	0.00100
Xylene		0.139	mg/L	1	0.00100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.0869	mg/L	1	0.100	87	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.114	mg/L	1	0.100	114	53.1 - 149

### Sample: 35566 - MW-6

Analysis: Cations Analytical Method: S 6010B Prep Method: S 3005A QC Batch: 10313 Date Analyzed: 2004-06-08 Analyzed By: BC

1494

Work Order: 4060102

Jamar

Page Number: 16 of 31 Monument,NM

TP

Prep Batch: 9020 Date Prepared: 2004-06-03 Prepared By:

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		97.9	mg/L	1	0.500
Dissolved Potassium		7.36	mg/L	1	0.500
Dissolved Magnesium		62.8	mg/L	1	0.500
Dissolved Sodium		409	mg/L	1	0.500

Sample: 35566 - MW-6

Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A Analyzed By: JSW OC Batch: 10156 Date Analyzed: 2004-06-02 Prep Batch: 8992 Date Prepared: 2004-06-01 Prepared By: **JSW** QC Batch: 10277 Date Analyzed: 2004-06-08 Analyzed By: JSW Prep Batch: 9091 Date Prepared: 2004-06-07 Prepared By: JSW

RL Dilution RL Parameter Result Units Flag 0.500 Chloride 639 mg/L 50 Fluoride 3.89 5 0.200 mg/L Sulfate 329 50 0.500 mg/L

Sample: 35566 - MW-6

Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A QC Batch: 10156 Date Analyzed: 2004-06-02 Analyzed By: JSW Prep Batch: 8992 Date Prepared: 2004-06-01 Prepared By: **JSW** 

Sample: 35566 - MW-6

Analysis: PAH Analytical Method: S 8270C Prep Method: S 3510C QC Batch: 10247 Date Analyzed: 2004-06-04 Analyzed By: RC Prep Batch: 8990 Date Prepared: 2004-06-02 Prepared By: RC

RLParameter Result Units Dilution RLFlag Naphthalene 0.000720 mg/L 0.001 0.200 Acenaphthylene 0.200 mg/L 0.001 < 0.000200 Acenaphthene < 0.000200 mg/L 0.001 0.200 Fluorene < 0.000200 0.001 0.200 mg/L Phenanthrene < 0.000200 0.001 0.200 mg/L Anthracene < 0.000200 mg/L 0.001 0.200 Fluoranthene < 0.000200 mg/L 0.0010.200 Pyrene < 0.000200 0.001 0.200 mg/L Benzo(a)anthracene 0.001 0.200 < 0.000200 mg/L

1494

Work Order: 4060102 Jamar Page Number: 17 of 31 Monument,NM

sample 35566 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chrysene		< 0.000200	mg/L	0.001	0.200
Benzo(b)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(k)fluoranthene		< 0.000200	mg/L	0.001	0.200
Benzo(a)pyrene		< 0.000200	mg/L	0.001	0.200
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.001	0.200
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.001	0.200
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.001	0.200

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5		0.0748	mg/L	0.001	80.0	94	0 - 128
2-Fluorobiphenyl		0.0702	mg/L	0.001	80.0	88	0 - 140
Terphenyl-d14		0.0815	mg/L	0.001	80.0	102	0 - 165

Sample: 35566 - MW-6

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A QC Batch: 10162 Date Analyzed: 2004-06-02 Analyzed By: RS Prep Batch: 8997 Date Prepared: 2004-06-01 Prepared By: JSW

 RL

 Parameter
 Flag
 Result
 Units
 Dilution
 RL

 Total Dissolved Solids
 2152
 mg/L
 4
 10.00

Sample: 35566 - MW-6

Total 8 Metals Analytical Method: S 6010B Prep Method: S 3010A Analysis: QC Batch: 10220 Date Analyzed: 2004-06-04 Analyzed By: RR Prep Batch: 9001 Date Prepared: 2004-06-02 Prepared By: TP Analysis: Total 8 Metals Prep Method: N/A Analytical Method: S 7470A QC Batch: 10318 Date Analyzed: 2004-06-09 Analyzed By: BC Prep Batch: 9123 Date Prepared: 2004-06-08 Prepared By: BC

RLParameter Flag Result Units Dilution RL Total Silver 0.0125 < 0.0125 mg/L Total Arsenic < 0.0100 mg/L 0.0100 mg/LTotal Barium 0.841 0.0100 Total Cadmium mg/L0.0150 0.00500 Total Chromium 0.117 mg/L 1 0.0100 Total Mercury < 0.000200 mg/L 1 0.000200Total Lead < 0.0100 mg/L 1 0.0100 Total Selenium < 0.0100 0.0100 mg/L 1

Method Blank (1) QC Batch: 10155

Work Order: 4060102

Jamar

Page Number: 18 of 31 Monument,NM

Parameter	Flag	Result	Units	RL
Nitrate-N		< 0.200	mg/L	0.2

Method Blank (1) QC Batch: 10155

Parameter	Flag	Result	Units	RL
Chloride	7-7-7-1	< 0.500	mg/L	0.5
Sulfate		< 0.500	mg/L	0.5

Method Blank (1) QC Batch: 10156

Parameter	Flag	Result	Units	RL
Nitrate-N		< 0.200	mg/L	0.2

Method Blank (1) QC Batch: 10156

Parameter	Flag	Result	Units	RL
Chloride		< 0.500	mg/L	0.5
Sulfate		< 0.500	mg/L	0.5

Method Blank (1) QC Batch: 10162

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 10177

Parameter	Flag	Result	Units	RL
Benzene		< 0.00100	mg/L	0.001
Toluene		< 0.00100	mg/L	0.001
Ethylbenzene		< 0.00100	mg/L	0.001
Xylene		< 0.00100	mg/L	0.001

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.110	mg/L	l	0.100	110	70 - 130

Report Date: June 9, 2004 1494

Work Order: 4060102

Jamar

Page Number: 19 of 31

Monument,NM

method blank continued							<del></del>
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)	2	0.0678	mg/L	1	0.100	68	70 - 130

Method Blank (1) QC Batch: 10182

Parameter	Flag	Result	Units	RL
Benzene		< 0.00100	mg/L	0.001
Toluene		< 0.00100	mg/L	0.001
Ethylbenzene		< 0.00100	mg/L	0.001
Xylene		< 0.00100	mg/L	0.001

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	76.2 - 119
4-Bromofluorobenzene (4-BFB)		0.0850	mg/L	1	0.100	85	58.5 - 136

Method Blank (1) QC Batch: 10220

Parameter	Flag	Result	Units	RL
Total Silver		< 0.0125	mg/L	0.0125
Total Arsenic		< 0.0100	mg/L	0.01
Total Barium		< 0.0100	mg/L	0.01
Total Cadmium		< 0.00500	mg/L	0.005
Total Chromium		< 0.0100	mg/L	0.01
Total Lead		< 0.0100	mg/L	0.01
Total Selenium		< 0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10247

Parameter	Flag	Result	Units	RL
Naphthalene		< 0.000200	mg/L	0.2
Acenaphthylene		< 0.000200	mg/L	0.2
Acenaphthene		< 0.000200	mg/L	0.2
Fluorene		< 0.000200	mg/L	0.2
Phenanthrene		< 0.000200	mg/L	0.2
Anthracene		< 0.000200	mg/L	0.2
Fluoranthene		< 0.000200	mg/L	0.2
Pyrene		< 0.000200	mg/L	0.2
Benzo(a)anthracene		< 0.000200	mg/L	0.2
Chrysene		< 0.000200	mg/L	0.2
Benzo(b)fluoranthene		< 0.000200	mg/L	0.2
Benzo(k)fluoranthene		< 0.000200	mg/L	0.2
Benzo(a)pyrene		< 0.000200	mg/L	0.2

<sup>&</sup>lt;sup>2</sup>Low surrogate recovery due to prep. ICV/CCV show the method to be in control.

Work Order: 4060102

Jamar

Page Number: 20 of 31 Monument,NM

method blank continued . . .

Parameter	Flag	Result	Units	RL
Indeno(1,2,3-cd)pyrene		< 0.000200	mg/L	0.2
Dibenzo(a,h)anthracene		< 0.000200	mg/L	0.2
Benzo(g,h,i)perylene		< 0.000200	mg/L	0.2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0390	mg/L	0.001	80.0	49	0 - 128
2-Fluorobiphenyl		0.0340	mg/L	0.001	80.0	42	0 - 140
Terphenyl-d14		0.0755	mg/L	0.001	80.0	94	0 - 165

Method Blank (1) QC Batch: 10258

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		< 4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 10277

Parameter	Flag	Result	Units	RL
Fluoride		< 0.200	mg/L	0.2

Method Blank (1) QC Batch: 10313

Parameter	Flag	Result	Units	RL
Dissolved Calcium		< 0.500	mg/L	0.5
Dissolved Potassium		< 0.500	mg/L	0.5
Dissolved Magnesium		< 0.500	mg/L	0.5
Dissolved Sodium		< 0.500	mg/L	0.5

Method Blank (1) QC Batch: 10318

Parameter	Flag	Result	Units	RL
Total Mercury		< 0.000200	mg/L	0.0002

Duplicate (1) QC Batch: 10162

1494

Work Order: 4060102

Jamar

Page Number: 21 of 31 Monument,NM

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Total Dissolved Solids	364.0	346.0	mg/L	l	5	8.7

Duplicate (1) QC Batch: 10258

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	< 1.00	< 1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	388	398	mg/L as CaCo3	1	2	20
Total Alkalinity	388	398	mg/L as CaCo3	1	2	4.8

Laboratory Control Spike (LCS-1) QC Batch: 10155

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Nitrate-N	2.40	2.37	mg/L	1	2.50	< 0.0217	96	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 10155

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.7	11.4	mg/L	1	12.5	< 0.337	94	2	90 - 110	20
Sulfate	12.1	11.4	mg/L	1	12.5	< 0.409	97	6	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 10156

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Nitrate-N	2.37	2.38	mg/L	1	2.50	< 0.0217	95	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 10156

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	11.3	11.3	mg/L	1	12.5	< 0.337	90	0	90 - 110	20
Sulfate	11.2	11.3	mg/L	1	12.5	< 0.409	90	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 10177

1494

Work Order: 4060102

Jamar

Page Number: 22 of 31

Monument,NM

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0916	0.0896	mg/L	1	0.100	< 0.000136	92	2	70 - 130	20
Toluene	0.0929	0.0926	mg/L	1	0.100	< 0.000247	93	0	70 - 130	20
Ethylbenzene	0.0942	0.0928	mg/L	1	0.100	< 0.000550	94	1	70 - 130	20
Xylene	0.290	0.285	mg/L	1	0.300	< 0.00156	97	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.0952	0.0945	mg/L	1	0.100	95	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0985	0.0977	mg/L	1	0.100	98	98	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 10182

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0954	0.100	mg/L	1	0.100	< 0.000338	95	5	84.6 - 117	20
Toluene	0.0896	0.0955	mg/L	1	0.100	< 0.000299	90	6	80.9 - 115	20
Ethylbenzene	0.0874	0.0929	mg/L	1	0.100	< 0.000469	87	6	77.6 - 119	20
Xylene	0.261	0.278	mg/L	1	0.300	< 0.000787	87	6	76.2 - 122	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.101	0.104	mg/L	1	0.100	101	104	79.7 - 119
4-Bromofluorobenzene (4-BFB)	0.0874	0.0901	mg/L	1	0.100	87	90	65.6 - 141

Laboratory Control Spike (LCS-1) QC Batch: 10220

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.118	0.121	mg/L	1	0.125	< 0.00274	94	2	85 - 115	20
Total Arsenic	0.456	0.479	mg/L	1	0.500	< 0.00489	91	5	85 - 115	20
Total Barium	0.960	0.960	mg/L	1	1.00	< 0.000450	96	0	85 - 114	20
Total Cadmium	0.233	0.234	mg/L	1	0.250	< 0.000268	93	0	86 - 115	20
Total Chromium	0.0900	0.0910	mg/L	1	0.100	< 0.00357	90	1	85 - 115	20
Total Lead	0.458	0.452	mg/L	1	0.500	< 0.00698	92	1	86.1 - 112	20
Total Selenium	0.444	0.453	mg/L	1	0.500	< 0.00556	89	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 10247

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Naphthalene	85.1	85.4	mg/L	1	80.0	< 0.0445	106	0	22.5 - 119	20
Acenaphthylene	95.4	95.5	mg/L	1	80.0	< 0.0383	119	0	42.3 - 127	20
Acenaphthene	87.8	87.0	mg/L	1	80.0	< 0.0421	110	1	38 - 125	20
Fluorene	87.3	86.3	mg/L	1	80.0	< 0.0655	109	1	36.6 - 130	20
Phenanthrene	82.0	82.5	mg/L	1	80.0	< 0.0383	102	1	40.3 - 131	20

continued ...

1494

Work Order: 4060102

Jamar

Page Number: 23 of 31 Monument, NM

control spikes continued . . .

<i>voim or spin-s voim or s</i>	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Anthracene	86.5	87.0	mg/L	1	80.0	< 0.0468	108	0	36.7 - 135	20
Fluoranthene	88.3	87.4	mg/L	1	80.0	< 0.0550	110	1	43.2 - 133	20
Pyrene	87.3	88.9	mg/L	1	80.0	< 0.0904	109	2	48.8 - 157	20
Benzo(a)anthracene	90.2	90.0	mg/L	1	80.0	< 0.0993	113	0	40.2 - 138	20
Chrysene	69.6	70.1	mg/L	1	80.0	< 0.121	87	1	5.5 - 179	20
Benzo(b)fluoranthene	84.2	87.8	mg/L	1	80.0	< 0.171	105	4	16.4 - 156	20
Benzo(k)fluoranthene	91.2	89.7	mg/L	1	80.0	< 0.0951	114	2	40.9 - 150	20
Benzo(a)pyrene	92.6	93.6	mg/L	1	80.0	< 0.135	116	1	38.7 - 149	20
Indeno(1,2,3-cd)pyrene	91.2	91.3	mg/L	1	80.0	< 0.176	114	0	32 - 153	20
Dibenzo(a,h)anthracene	83.3	85.2	mg/L	1	80.0	< 0.184	104	2	0 - 202	20
Benzo(g,h,i)perylene	93.1	94.4	mg/L	1	80.0	< 0.134	116	1	39.1 - 144	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Nitrobenzene-d5	89.9	90.8	mg/L	1	80.0	112	114	0 - 128
2-Fluorobiphenyl	84.9	83.8	mg/L	1	80.0	106	105	0 - 140
Terphenyl-d14	86.5	87.0	mg/L	1	80.0	108	109	0 - 165

Laboratory Control Spike (LCS-1) QC Batch: 10277

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Fluoride	2.25	2.24	mg/L	1	2.50	< 0.0594	90	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 10313

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	98.1	98.6	mg/L	1	100	< 0.102	98	0	85 - 115	20
Dissolved Potassium	96.7	92.0	mg/L	1	100	< 0.101	97	5	85 - 115	20
Dissolved Magnesium	98.7	98.8	mg/L	1	100	< 0.110	99	0	85 - 115	20
Dissolved Sodium	93.9	94.0	mg/L	1	100	< 0.120	94	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 10318

	LCS	LCSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Total Mercury	0.000990	0.00100	mg/L	1	0.00100	< 0.0000329	99	1	82 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 10155

1494

Work Order: 4060102

Jamar

Page Number: 24 of 31

Monument,NM

,	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Nitrate-N	126	125	mg/L	50	2.50	8.47	94	1	79.6 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 10155

_	MS	MSD		- ·	Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	1230	1240	mg/L	50	12.5	694	86	1	74.3 - 118	20
Sulfate	805	829	mg/L	50	12.5	252	88	3	77.8 - 112	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 10156

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Nitrate-N	123	123	mg/L	50	2.50	6.35	93	0	79.6 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 10156

•	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	1190	1190	mg/L	50	12.5	639	88	0	74.3 - 118	20
Sulfate	880	890	mg/L	50	12.5	329	88	1	77.8 - 112	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 10220

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Total Silver	0.128	0.128	mg/L	1	0.125	< 0.00274	102	0	75 - 125	20
Total Arsenic	0.451	0.476	mg/L	1	0.500	< 0.00489	90	5	75 - 125	20
Total Barium	1.09	0.971	mg/L	1	1.00	< 0.000450	109	12	75 - 125	20
Total Cadmium	0.241	0.241	mg/L	1	0.250	< 0.000268	96	0	75 - 125	20
Total Chromium	0.0920	0.0910	mg/L	1	0.100	< 0.00357	92	1	75 - 125	20
Total Lead	0.493	0.496	mg/L	1	0.500	< 0.00698	99	1	75 - 125	20
Total Selenium	0.483	0.441	mg/L	1	0.500	< 0.00556	97	9	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 10277

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Fluoride	46.6	47.6	mg/L	20	2.50	3.15	87	2	84.9 - 104	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Work Order: 4060102 Jamar

Page Number: 25 of 31 Monument, NM

Matrix Spike (MS-1) QC Batch: 10313

		MS	MSD			Spike	Matrix			Rec.	RPD
Param		Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Dissolved Calcium	3	304	275	mg/L	1	100	204	100	10	75 - 125	20
Dissolved Potassium		113	116	mg/L	1	100	10.8	102	3	75 - 125	20
Dissolved Magnesium		182	169	mg/L	1	100	83.6	98	7	75 - 125	20
Dissolved Sodium	45	453	439	mg/L	1	100	392	61	3	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 10318

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Total Mercury	0.00108	0.00108	mg/L	1	0.00100	< 0.0000329	108	0	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-2)

QC Batch: 10318

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Total Mercury	0.000990	0.00101	mg/L	1	0.00100	< 0.0000329	99	2	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 10155

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.38	95	90 - 110	2004-06-02

Standard (ICV-1) QC Batch: 10155

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.5	92	90 - 110	2004-06-02
Sulfate		mg/L	12.5	11.5	92	90 - 110	2004-06-02

Standard (CCV-1) QC Batch: 10155

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.37	95	90 - 110	2004-06-02

<sup>&</sup>lt;sup>3</sup>ms recovery out of limits due to matrix effect, use lcs/lcsd

<sup>&</sup>lt;sup>4</sup>ms recovery out of limits due to matrix effect, use lcs/lcsd

<sup>5</sup>ms recovery out of limits due to matrix effect, use lcs/lcsd

Work Order: 4060102 Jamar Page Number: 26 of 31 Monument,NM

Standard (	(CCV-1)	OC	Batch:	10155
Stanuaru	$\sim \sim 1$	Q.C	Dutch.	10155

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/L	12.5	11.3	90	90 - 110	2004-06-02
Sulfate		mg/L	12.5	11.3	90	90 - 110	2004-06-02

### Standard (ICV-1) QC Batch: 10156

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.37	95	90 - 110	2004-06-02

## Standard (ICV-1) QC Batch: 10156

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/L	12.5	11.3	90	90 - 110	2004-06-02
Sulfate		mg/L	12.5	11.3	90	90 - 110	2004-06-02

## Standard (CCV-1) QC Batch: 10156

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.39	96	90 - 110	2004-06-02

## Standard (CCV-1) QC Batch: 10156

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/L	12.5	11.5	92	90 - 110	2004-06-02
Sulfate		mg/L	12.5	11.5	92	90 - 110	2004-06-02

## Standard (ICV-1) QC Batch: 10162

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids		mg/L	1000	1028	103	90 - 110	2004-06-02

## Standard (CCV-1) QC Batch: 10162

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids		mg/L	1000	982.0	98	90 - 110	2004-06-02

Work Order: 4060102 Jamar Page Number: 27 of 31 Monument,NM

Standard	(ICV-1)	OC Batch: 10177
----------	---------	-----------------

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0928	93	85 - 115	2004-06-01
Toluene		mg/L	0.100	0.0949	95	85 - 115	2004-06-01
Ethylbenzene		mg/L	0.100	0.0947	95	85 - 115	2004-06-01
Xylene		mg/L	0.300	0.291	97	85 - 115	2004-06-01

## Standard (CCV-1) QC Batch: 10177

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.100	0.100	100	85 - 115	2004-06-01
Toluene		mg/L	0.100	0.102	102	85 - 115	2004-06-01
Ethylbenzene		mg/L	0.100	0.101	101	85 - 115	2004-06-01
Xylene		mg/L	0.300	0.308	103	85 - 115	2004-06-01

## Standard (CCV-1) QC Batch: 10182

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/L	0.100	0.0966	97	85 - 115	2004-06-02
Toluene		mg/L	0.100	0.0917	92	85 - 115	2004-06-02
Ethylbenzene		mg/L	0.100	0.0892	89	85 - 115	2004-06-02
Xylene		mg/L	0.300	0.264	88	85 - 115	2004-06-02

## Standard (CCV-2) QC Batch: 10182

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0983	98	85 - 115	2004-06-02
Toluene		mg/L	0.100	0.0939	94	85 - 115	2004-06-02
Ethylbenzene		mg/L	0.100	0.0908	91	85 - 115	2004-06-02
Xylene		mg/L	0.300	0.270	90	85 - 115	2004-06-02

## Standard (ICV-1) QC Batch: 10220

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Silver		mg/L	0.125	0.120	96	90 - 110	2004-06-04
Total Arsenic		mg/L	1.00	0.966	97	90 - 110	2004-06-04
Total Barium		mg/L	1.00	0.953	95	90 - 110	2004-06-04
Total Cadmium		mg/L	1.00	0.959	96	90 - 110	2004-06-04
Total Chromium		mg/L	1.00	0.961	96	90 - 110	2004-06-04
Total Lead		mg/L	1.00	0.953	95	90 - 110	2004-06-04
Total Selenium		mg/L	1.00	0.961	96	90 - 110	2004-06-04

1494

Work Order: 4060102 Jamar

Page Number: 28 of 31 Monument,NM

Standard (CCV-1)

QC Batch: 10220

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver	1 lag	mg/L	0.125	0.126	101	90 - 110	2004-06-04
		•					
Total Arsenic		mg/L	1.00	0.972	97	90 - 110	2004-06-04
Total Barium		mg/L	00.1	1.01	101	90 - 110	2004-06-04
Total Cadmium		mg/L	1.00	0.978	98	90 - 110	2004-06-04
Total Chromium		mg/L	1.00	1.00	100	90 - 110	2004-06-04
Total Lead		mg/L	1.00	0.979	98	90 - 110	2004-06-04
Total Selenium		mg/L	1.00	0.953	95	90 - 110	2004-06-04

Standard (CCV-1)

QC Batch: 10247

			CCVs	CCVs <sup>-</sup>	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Naphthalene		mg/L	60.0	61.0	102	80 - 120	2004-06-04
Acenaphthylene		mg/L	60.0	61.2	102	80 - 120	2004-06-04
Acenaphthene		mg/L	60.0	60.4	101	80 - 120	2004-06-04
Fluorene		mg/L	60.0	61.7	103	80 - 120	2004-06-04
Phenanthrene		mg/L	60.0	60.1	100	80 - 120	2004-06-04
Anthracene		mg/L	60.0	60.4	101	80 - 120	2004-06-04
Fluoranthene		mg/L	60.0	59.9	100	80 - 120	2004-06-04
Pyrene		mg/L	60.0	62.1	104	80 - 120	2004-06-04
Benzo(a)anthracene		mg/L	60.0	61.9	103	80 - 120	2004-06-04
Chrysene		mg/L	60.0	61.3	102	80 - 120	2004-06-04
Benzo(b)fluoranthene		mg/L	60.0	65.1	108	80 - 120	2004-06-04
Benzo(k)fluoranthene		mg/L	60.0	62.8	105	80 - 120	2004-06-04
Benzo(a)pyrene		mg/L	60.0	63.2	105	80 - 120	2004-06-04
Indeno(1,2,3-cd)pyrene		mg/L	60.0	62.4	104	80 - 120	2004-06-04
Dibenzo(a,h)anthracene		mg/L	60.0	62.2	104	80 - 120	2004-06-04
Benzo(g,h,i)perylene		mg/L	60.0	62.4	104	80 - 120	2004-06-04

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limit
Nitrobenzene-d5		66.0	mg/L	1	60.0	110	80 - 120
2-Fluorobiphenyl		59.0	mg/L	1	60.0	98	80 - 120
Terphenyl-d14		61.3	mg/L	1	60.0	102	80 - 120

Standard (ICV-1)

QC Batch: 10258

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2004-06-04

Standard (CCV-1) QC Batch: 10258

Work Order: 4060102

Page Number: 29 of 31

1494					Jamar				Monument,NM
Param	Flag	Į	Jnits	CCV True Cond	e	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L	as CaCo3	250	1	240	96	90 - 110	2004-06-04
Standard (ICV-1)	QC Ba	tch: 10277							
			CCVs	;	CCVs		CCVs	Percent	
			True		Found		Percent	Recovery	Date
Param Fla	ıg	Units	Conc.		Conc.		Recovery	Limits	Analyzed
Fluoride		mg/L	2.50		2.28		91	90 - 110	2004-06-08
Standard (CCV-1)	QC Ba	atch: 10277	CCVs		CCVs		CCVs	Percent	
			True	•	Found		Percent	Recovery	Date
Param Fla	ng	Units	Conc.		Conc.		Recovery	Limits	Analyzed
Fluoride	<u> </u>	mg/L	2.50		2.27		91	90 - 110	2004-06-08
Standard (ICV-1) Param	QC Ba	tch: 10313	Units	CCVs True Conc.	F	CCVs Cound Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium			mg/L	25.0		25.1	100	90 - 110	2004-06-08
Dissolved Potassium			mg/L	25.0		24.0	96	90 - 110	2004-06-08
Dissolved Magnesium	1		mg/L	25.0		24.6	98	90 - 110	2004-06-08
Dissolved Sodium			mg/L	25.0		24.9	100	90 - 110	2004-06-08
Standard (CCV-1)	QC Ba	atch: 10313		CCVs		CCVs	CCVs	Percent	
<b>D</b>		<b>701</b>	** *.	True		ound	Percent	Recovery	Date
Param		Flag	Units	Conc.		Conc.	Recovery	Limits	Analyzed
Dissolved Calcium			mg/L	25.0		26.5	106	90 - 110	2004-06-08
Dissolved Potassium	_		mg/L	25.0		23.7	95 102	90 - 110	2004-06-08
Dissolved Magnesium	ı		mg/L	25.0		25.7	103	90 - 110	2004-06-08

Standard (ICV 1)	OC D-4-1- 10210
Standard (ICV-1)	OC Batch: 10318

Dissolved Sodium

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Mercury		mg/L	0.00100	0.00100	100	80 - 120	2004-06-09

24.7

99

90 - 110

2004-06-08

25.0

mg/L

Standard (CCV-1) QC Batch: 10318 Report Date: June 9, 2004 1494

Work Order: 4060102

Jamar

Page Number: 30 of 31 Monument,NM

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Mercury		mg/L	0.00100	0.000950	95	80 - 120	2004-06-09

Standard (CCV-2) QC Batch: 10318

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Mercury		mg/L	0.00100	0.000950	95	80 - 120	2004-06-09

Report Date: June 9, 2004 1494

Work Order: 4060102 Jamar

Page Number: 31 of 31 Monument,NM

			_		bisbni	ete moi	l fnerel	lib li an	niT bruo	Turn Ar													
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST			_				160	01/04		CVIA								1					
IS R	الم			Mejor Chons/Anims			ĬĽ	Ž										]		orting			
ALYS	20/6		 					0000	1808 291 Hq 22											-	-		at Rep ded
AN	1000	UES.							3095\608												1		i Speci ve Nee
ANE	77	ANALYSIS REQUEST	Curcie or specify method No.)						Vol 82		-						-1	$\dashv$	+-	+	ig ig		Check II Special Reporting Limits Are Needed
LOD		SIS	- specil							IDR											REMARKS		
LSNC	₽ .	AL)	di						loV imes									$\equiv \downarrow$			<u>H</u>		
ÒF.	LAB Order ID #	₹ 5			Au	ac 0.1	10.00	20 SV F	A etals A Otaliles			٠.								$\vdash$	<b> </b>	z	°
IAIN	3			08/500					gA zisis		X	=								1	AB USE	Z >	Temp 4 IVM
ង								900	8 1/TX1 2007	14 H41 88 HA9	$\succeq$	=						-+		-	AB US	Intact (Y	7 3evies
								ZC	9/8120	хэта	X								1	1		intact Headsp	Temp_ Log-in F
	<u> </u>			ı —		<u> </u>	<u> </u>		80218/8	38TM	Sign	ZŽ	333	3.5	m:)	S. T.		-	+	+-	<del> </del>	┰┺╌Ĕ	T
on.Suite H 15, 79932	Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443							SAMPLING		3TA0	Ship	# 15.E	2	Ü	ز	(i)		+		-			
Cutche so. Texa	915) 56 1915) 51 188) 581	266	0400				_ ا				76-												0:12
155 Mc El Pa	Fax 1		8			7.7	$\mathcal{L}$			NONE				_					-	+-	Time	Time:	Time:
		228	268			Sawa	, C	PRESERVATIVE METHOD		HOBN												ļ	2
	ز	i		1			ature	瓦瓦		OS'H				_						+-	Date:	Date:	Date:
Ş		8 3	B	}		Nam	Sign	\$	<b></b>	нсі													C
		Phone #:	Fax #:			Project Name:	Sampler Signature	×	30	arnb			_							+-	4		1
		ū.	ŭ.			٦	S	MATRIX		RIA			-	-					+	+	1		Laboratory by
								2		TIOS		_								1	]		aboral
, BE	10.00							-	<del></del>	TAW	$\times$						-	-	+-	+-	à.	by:	1 7
3					1			107	omA\9	אטוייש			-								Received by:	Received by:	Received
•		<u> </u>	N S	1			1	SH	∃NIAT!	# CO/	4	7	7	2	7	7				-	28	Rei	ě 🗸
	FaceAna		#		3		1														Time:	Time:	Time:
			N PE	ر ا	١		7		CODE														
		8	12 Zip)	Lunch	N	0	NAM		FIELD CODE		_	7-	1.	7	n	9					Date:	Date:	Date:
6701 Aberdaen Avenua, Ste. 9 Lubbock, Texas 79424	794-1296 794-1298 78-1296	3	Get.	_	ove)	14041	Project Location Win (A.M. A.A.)	3			MW-	1/3/1/	N/N	XX	MW	MK					701	1460	
Aberdaen Jobock, Te	Tel (806) 794-129( Fax (806) 794-129 1 (800) 378-1296	Company Name:	Address: In	เต 🥆	Invoice to: (If different from above)	Project #: 14	Location	-	LAB #	(LAB USE)	35561 1	(1)	13	100	100	9		+		+	Relinquished by	Relinquished by	Relinquished by

	7
_	5
	rag

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

6701 Aberdeen Avenue, Ste.

Lubbock, Texas 79424

Maly Turn Around Time if different from standard **Mejor** SUOLEY SWIN Check If Special Reporting 010701 Limits Are Needed Circle or Specify Method No. Pesticides 8081A/608 **ANALYSIS REQUEST** PCB's 8082/608 GC/MS Semi. Vol. 8270C/625 REMARKS TCLP Pesticides LAB Order ID # CLP Semi Volatiles N / ≻ Log-in Review\_M LAB USE ONLY LP Metals Ag As Ba Cd Cr Pb Se Hg X UN Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 PAH 8270C Headspace 7PH 418.1/TX1005 Intact BTEX 8021B/602 Temp. 80218/602 38TN TEL SOLVE からから B:1 びい SAMPLING TIME 155 McCutcheon, Suite H El Paso, Texas 79932 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 # **3TA**0 51:01 0has 372 505 228 220 Phesenvarive Time: NONE Project Name: METHOD ICE Signature NaOH 20002 Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. Phone #: "OS"H Date: TraceAnalysis, Inc. <sup>€</sup>ONH HCI Sampler SUDDEE MATRIX Received at Laboratory by HIΑ TIOS **MATER** Received by Received by InnomA\amuloV N/O # CONTAINERS 7 Time: 8.3 Time: FIELD CODE Project Location ON UN CONT (Street, City, Zip) Date: Project #: 1494-1.C SATA Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 (If different from above) 35 Contact Person: Company Name: Relinquished by Relinquished by (LAB USE) e 5561 Invoice to: S LAB #

Carrier #\_

ORIGINAL COPY

DIOH

1494

Work Order: 4060812

Jamar

Page Number: 1 of 3 Monument,NM

Report Date: June 10, 2004

Work Order: 4060812

# **Summary Report**

Dave Henard

RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location: Monument, NM

Project Name:

Jamar

Project Number: 1494

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
35958	Exc 6 E @ 6'	soil	2004-06-02	14:35	2004-06-08
35959	Exc 6 N @ 1'	soil	2004-06-02	14:00	2004-06-08
35960	Exc 6 M @ 3'	soil	2004-06-02	16:00	2004-06-08
35961	Exc 6 M @ 6'	soil	2004-06-02	16:35	2004-06-08
35962	Exc 6 W @ 1'	soil	2004-06-03	09:30	2004-06-08
35963	Exc 6 W @ 6'	soil	2004-06-03	10:00	2004-06-08
35964	Exc 7 M @ 1'	soil	2004-06-03	13:00	2004-06-08
35965	Exc 7 M @ 3'	soil	2004-06-03	13:41	2004-06-08
35966	Exc 7 M @ 6'	soil	2004-06-03	14:18	2004-06-08
35967	Exc 7 N @ 3'	soil	2004-06-03	15:40	2004-06-08
35968	Exc 7 S @ 3'	soil	2004-06-03	16:30	2004-06-08

	TPH DRO	TPH GRO
	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)
35958 - Exc 6 E @ 6'	<50.0	<1.00
35959 - Exc 6 N @ 1'	8280	100
35960 - Exc 6 M @ 3'	< 50.0	< 1.00
35961 - Exc 6 M @ 6'	< 50.0	< 1.00
35962 - Exc 6 W @ 1'	< 50.0	< 1.00
35963 - Exc 6 W @ 6'	< 50.0	< 1.00
35964 - Exc 7 M @ 1'	92.4	< 1.00
35965 - Exc 7 M @ 3'	< 50.0	< 1.00
35966 - Exc 7 M @ 6'	< 50.0	< 1.00
35967 - Exc 7 N @ 3'	< 50.0	<1.00
35968 - Exc 7 S @ 3'	< 50.0	< 1.00

Sample: 35958 - Exc 6 E @ 6'

Param	Flag	Result	Units	RL
Chloride		739	mg/Kg	1.00

Sample: 35959 - Exc 6 N @ 1'

Report Date: June 10, 2004 1494		Work Order: 4060812 Jamar	Page	Page Number: 2 of 3 Monument,NM		
Param	$\operatorname{Flag}$	Result	Units	RL		
Chloride		1760	${ m mg/Kg}$	1.00		
Sample: 35960 - Exc	6 M @ 3'		,			
Param	Flag	Result	Units	RL		
Chloride		41.9	mg/Kg	1.00		
Sample: 35961 - Exc	6 M @ 6'					
Param	Flag	Result	Units	RL		
Chloride		155	mg/Kg	1.00		
Sample: 35962 - Exc	6 W @ 1'					
Param	Flag	Result	Units	RL		
Chloride		50.6	mg/Kg	1.00		
Sample: 35963 - Exc	6 W @ 6'					
Param	Flag	Result	Units	RL		
Chloride		71.1	m mg/Kg	1.00		
Sample: 35964 - Exc	7 M @ 1'					
Param	Flag	Result	Units	RL		
Chloride		880	mg/Kg	1.00		
Sample: 35965 - Exc	7 M @ 3'					
Param	Flag	Result	Units	RL		
Chloride		3250	m mg/Kg	1.00		
Sample: 35966 - Exc	7 M @ 6'					
Param	Flag	Result	Units	RL		
Chloride		100	mg/Kg	1.00		
Sample: 35967 - Exc	7 N @ 3'					
Param	Flag	Result	Units	RL		
Chloride		752	mg/Kg	1.00		

Report Date: June 10, 2004 1494

Work Order: 4060812 Jamar Page Number: 3 of 3 Monument,NM

Sample: 35968 - Exc 7 S @ 3'

Param	Flag	Result	Units	RL
Chloride		1340	mg/Kg	1.00

6701 Aberdeen Avenue, Suite 9 155 McCutcheon, Suite H

Lubbock, Texas 79424 El Paso, Texas 79932

800 • 378 • 1296 888 • 588 • 3443 806 • 794 • 1296 915 • 585 • 3443 FAX 806 • 794 • 1298 FAX 915 • 585 • 4944

Report Date: June 10, 2004

Work Order: 4060812

E-Mail: lab@traceanalysis.com

# **Analytical and Quality Control Report**

Dave Henard

RESPEC

4775 Indian School Rd. NE

Suite 300

Albuquerque, NM 87110

Project Location: Monument, NM

Project Name: Project Number: Jamar 1494

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
35958	Exc 6 E @ 6'	soil	2004-06-02	14:35	2004-06-08
35959	Exc 6 N @ 1'	soil	2004-06-02	14:00	2004-06-08
35960	Exc 6 M @ 3'	soil	2004-06-02	16:00	2004-06-08
35961	Exc 6 M @ 6'	soil	2004-06-02	16:35	2004-06-08
35962	Exc 6 W @ 1'	soil	2004-06-03	09:30	2004-06-08
35963	Exc 6 W @ 6'	soil	2004-06-03	10:00	2004-06-08
35964	Exc 7 M @ 1'	soil	2004-06-03	13:00	2004-06-08
35965	Exc 7 M @ 3'	soil	2004-06-03	13:41	2004-06-08
35966	Exc 7 M @ 6'	soil	2004-06-03	14:18	2004-06-08
35967	Exc 7 N @ 3'	soil	2004-06-03	15:40	2004-06-08
35968	Exc 7 S @ 3'	soil	2004-06-03	16:30	2004-06-08

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 15 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis,

Dr. Blair Leftwich, Director

1494

Work Order: 4060812 Jamar

Page Number: 2 of 15 Monument, NM

# **Analytical Report**

Sample: 35958 - Exc 6 E @ 6'

Chloride (IC) Analysis: QC Batch: 10335

Prep Batch: 9140 Analytical Method:

Date Prepared:

E 300.0 Date Analyzed:

2004-06-10 2004-06-09 Prep Method: N/A

Analyzed By: JSW Prepared By: **JSW** 

RL

Parameter Flag Result Units Dilution RLChloride 739 mg/Kg 1.00

Sample: 35958 - Exc 6 E @ 6'

Analysis: TPH DRO QC Batch: 10310 Prep Batch: 9118

Analytical Method: Date Analyzed:

Date Prepared:

Mod. 8015B 2004-06-09

Prep Method: N/A Analyzed By: BP

2004-06-08

Prepared By: DS

RL

Parameter Flag Result Dilution RLUnits DRO < 50.0 50.0 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		142	mg/Kg	1	150	95	64.7 - 162

Sample: 35958 - Exc 6 E @ 6'

Analysis: **TPH GRO** QC Batch: 10298 Prep Batch: 9110

Analytical Method: Date Analyzed:

Date Prepared:

RL

S 8015B 2004-06-08 2004-06-08 Prep Method: S 5035 Analyzed By: MT

Prepared By: MT

Parameter Flag Result Units Dilution RLGRO <1.00 0.100 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.770	mg/Kg	10	0.100	77	70 - 130
4-Bromofluorobenzene (4-BFB)		0.833	mg/Kg	10	0.100	83	70 - 130

Sample: 35959 - Exc 6 N @ 1'

Analysis: Chloride (IC) QC Batch: 10335 Prep Batch: 9140

Analytical Method: E 300.0 Date Analyzed: 2004-06-10 Date Prepared: 2004-06-09

Prep Method: N/A JSW Analyzed By: Prepared By: JSW

RL

Parameter Flag Result Units Dilution RLChloride 1760 100 1.00 mg/Kg

Work Order: 4060812

Jamar

Page Number: 3 of 15 Monument,NM

Sample: 35959 - Exc 6 N @ 1'

Analysis: OC Batch: Prep Batch:

1494

TPH DRO 10310 9118

Analytical Method: Mod. 8015B

Date Analyzed: Date Prepared:

2004-06-09 2004-06-08 Prep Method: N/A Analyzed By: BPDS

Prepared By:

RL

Parameter Flag Result Units Dilution RLDRO 8280 mg/Kg 40 50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	1	2040	mg/Kg	40	3.50	1457	64.7 - 162

Sample: 35959 - Exc 6 N @ 1'

Analysis: QC Batch:

**TPH GRO** 10298 Prep Batch: 9110

Analytical Method: Date Analyzed:

Date Prepared:

S 8015B 2004-06-08

2004-06-08

Prep Method: S 5035 Analyzed By: MT Prepared By:

MT

RL Parameter Result Units Dilution RLFlag **GRO** 100 mg/Kg 100 0.100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	2	0.735	mg/Kg	100	0.100	7	70 - 130
4-Bromofluorobenzene (4-BFB)	3	3.53	mg/Kg	100	0.100	35	70 - 130

Sample: 35960 - Exc 6 M @ 3'

Analysis: Chloride (IC) QC Batch:

10335 Prep Batch: 9140

Analytical Method: Date Analyzed:

Date Prepared:

E 300.0 2004-06-10 2004-06-09 Prep Method: N/A Analyzed By: **JSW** 

**JSW** 

Prepared By:

RL Parameter Result Units Dilution RL Flag Chloride 41.9 1.00 mg/Kg 10

Sample: 35960 - Exc 6 M @ 3'

Analysis: QC Batch:

DRO

TPH DRO 10310 Prep Batch: 9118

Analytical Method: Date Analyzed:

< 50.0

Mod. 8015B 2004-06-09

Units

mg/Kg

Prep Method: N/A Analyzed By: BP Prepared By: DS

RL Parameter Flag Result

Date Prepared: 2004-06-08

> Dilution RL50.0

<sup>&</sup>lt;sup>1</sup>Surrogate recovery out of range due to peak interference. QC show the process within control.

<sup>&</sup>lt;sup>2</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

<sup>&</sup>lt;sup>3</sup>Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

1494

Work Order: 4060812

Jamar

Page Number: 4 of 15 Monument, NM

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		148	mg/Kg	1	150	99	64.7 - 162

Sample: 35960 - Exc 6 M @ 3'

Analysis: QC Batch: Prep Batch:

TPH GRO 10298 9110

Analytical Method:

S 8015B Date Analyzed: 2004-06-08 Date Prepared: 2004-06-08 Prep Method: S 5035 Analyzed By: MT Prepared By: MT

RL

Result Dilution Parameter Flag Units RLGRO <1.00 10 0.100 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.856	mg/Kg	10	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)		0.850	mg/Kg	10	0.100	85	70 - 130

Sample: 35961 - Exc 6 M @ 6'

Analysis:

Chloride (IC) QC Batch: 10335 Prep Batch: 9140

Analytical Method: E 300.0

2004-06-10 Date Analyzed: Date Prepared: 2004-06-09 Prep Method: N/A Analyzed By: JSW

Prepared By: JSW

RLRLParameter Flag Result Units Dilution Chloride 155 mg/Kg 10 1.00

Sample: 35961 - Exc 6 M @ 6'

Analysis: QC Batch:

DRO

TPH DRO 10310 Prep Batch: 9118

Analytical Method: Date Analyzed:

Date Prepared:

< 50.0

Mod. 8015B 2004-06-09 2004-06-08

mg/Kg

Prep Method: N/A Analyzed By: BP

Parameter Flag

RLResult Units Prepared By: DS

Dilution

RL

50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		148	mg/Kg	1	150	99	64.7 - 162

Sample: 35961 - Exc 6 M @ 6'

Analysis: QC Batch:

**TPH GRO** 10298 Prep Batch: 9110

Analytical Method: Date Analyzed:

Date Prepared:

S 8015B 2004-06-08 2004-06-08 Prep Method: S 5035 Analyzed By: MT Prepared By: MT

1494

Work Order: 4060812

Jamar

Page Number: 5 of 15 Monument,NM

Parameter	Flag		RL Result		Units	Di	lution	RL
GRO			<1.00		mg/Kg		10	0.100
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.888	mg/Kg	10	0.100	89	70 - 130
4-Bromofluorobenzene (4-B	FB)		0.891	mg/Kg	10	0.100	89	70 - 130

Sample: 35962 - Exc 6 W @ 1'

Analysis: Chloride (IC)
QC Batch: 10335
Prep Batch: 9140

Analytical Method: E 300.0
Date Analyzed: 2004-06-10
Date Prepared: 2004-06-09

Prep Method: N/A Analyzed By: JSW Prepared By: JSW

Sample: 35962 - Exc 6 W @ 1'

Analysis: TPH DRO QC Batch: 10310 Prep Batch: 9118 Analytical Method: Mod. 8015B
Date Analyzed: 2004-06-09
Date Prepared: 2004-06-08

Prep Method: N/A Analyzed By: BP Prepared By: DS

Surrogate Flag Result Units Dilution Amount Recovery Limits n-Triacontane 160 mg/Kg 1 150 107 64.7 - 162

Sample: 35962 - Exc 6 W @ 1'

Analysis: TPH GRO QC Batch: 10298 Prep Batch: 9110 Analytical Method: S 8015B
Date Analyzed: 2004-06-08
Date Prepared: 2004-06-08

Prep Method: S 5035 Analyzed By: MT Prepared By: MT

				Spike	Percent	Recovery
Flag	Result	Units	Dilution	Amount	Recovery	Limits
	0.819	mg/Kg	10	0.100	82	70 - 130
	0.931	mg/Kg	10	0.100	93	70 - 130
	Flag	0.819	0.819 mg/Kg	0.819 mg/Kg 10	Flag Result Units Dilution Amount 0.819 mg/Kg 10 0.100	Flag Result Units Dilution Amount Recovery  0.819 mg/Kg 10 0.100 82

Sample: 35963 - Exc 6 W @ 6'

Report Date: June 10, 2004 Work Order: 4060812 Page Number: 6 of 15 1494 Jamar Monument, NM Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A OC Batch: Date Analyzed: 2004-06-10 Analyzed By: 10335 **JSW** Prep Batch: 9140 Date Prepared: 2004-06-09 Prepared By: **JSW** RL Parameter Result Flag Units Dilution RL 71.1 Chloride 1.00 mg/Kg Sample: 35963 - Exc 6 W @ 6'

Prep Batch: 9118 Date Prepared: 2004-06-08 Prepared By: DS RL Parameter Result Dilution Flag Units RL DRO < 50.0 50.0 mg/Kg Spike Percent Recovery Surrogate Flag Result Units Dilution Amount Recovery Limits n-Triacontane 147 mg/Kg 150 98 64.7 - 162 1

Mod. 8015B

2004-06-09

Prep Method:

Analyzed By:

N/A BP

Analytical Method:

Date Analyzed:

Sample: 35963 - Exc 6 W @ 6'

TPH DRO

10310

Analysis:

QC Batch:

**TPH GRO** Analytical Method: Prep Method: Analysis: S 8015B S 5035 OC Batch: 10298 Date Analyzed: 2004-06-08 Analyzed By: MT Prep Batch: 9110 Date Prepared: 2004-06-08 Prepared By: MT

RL
Parameter Flag Result Units Dilution RL
GRO <1.00 mg/Kg 10 0.100

Spike Percent Recovery Surrogate Units Dilution Recovery Limits Flag Result Amount Trifluorotoluene (TFT) 0.865 mg/Kg 10 0.100 86 70 - 130 0.876 4-Bromofluorobenzene (4-BFB) mg/Kg 10 0.100 88 70 - 130

Sample: 35964 - Exc 7 M @ 1'

Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A QC Batch: 10335 Date Analyzed: 2004-06-10 Analyzed By: JSW Prep Batch: 9140 Date Prepared: 2004-06-09 Prepared By: **JSW** RL Parameter Flag Result Units Dilution RL

mg/Kg

50

1.00

Sample: 35964 - Exc 7 M @ 1'

Chloride

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A

880

1494

Work Order: 4060812

Jamar

Page Number: 7 of 15

Monument,NM

OC Batch: Prep Batch: 9118

10310

Date Analyzed: Date Prepared:

2004-06-09 2004-06-08 Analyzed By: Prepared By:

BPDS

RL

Parameter DRO

Result 92.4 Units

Dilution

RL

Flag

mg/Kg

Percent

114

50.0

Surrogate n-Triacontane Flag Result 171

Units Dilution mg/Kg 1

Amount Recovery 150

Spike

Recovery Limits 64.7 - 162

Sample: 35964 - Exc 7 M @ 1'

Analysis:

**TPH GRO** 10298

Analytical Method:

S 8015B 2004-06-08 Prep Method: Analyzed By:

S 5035 MT

QC Batch: Prep Batch:

9110

Date Analyzed: Date Prepared:

2004-06-08

Prepared By:

MT

RL

Parameter Flag **GRO** 

Result Units Dilution

<1.00

mg/Kg

10

RL 0.100

Surrogate

Spike Recovery Percent Flag Result Units Dilution Recovery Limits Amount Trifluorotoluene (TFT) 0.804 mg/Kg 10 0.100 80 70 - 130 4-Bromofluorobenzene (4-BFB) 0.790 mg/Kg 10 0.100 79 70 - 130

Sample: 35965 - Exc 7 M @ 3'

Analysis: QC Batch: Chloride (IC)

10335

Analytical Method:

E 300.0

Prep Method:

N/A JSW

Prep Batch:

Parameter

9140

Date Analyzed: Date Prepared:

2004-06-10 2004-06-09

Analyzed By: Prepared By:

**JSW** 

RL

Result 3250

Units

mg/Kg

RL

1.00

Chloride

Sample: 35965 - Exc 7 M @ 3'

Analysis: QC Batch: Prep Batch:

TPH DRO 10310 9118

Analytical Method: Date Analyzed:

Date Prepared:

Mod. 8015B 2004-06-09

Prep Method: Analyzed By:

N/A BP

Prepared By:

DS

Parameter

Flag

RL

2004-06-08

Flag

Result

Units

Dilution

Percent

Recovery

98

Dilution

500

RL

DRO

Flag

< 50.0

mg/Kg

50.0

Surrogate n-Triacontane

Result 147

Units

mg/Kg

Dilution

1

Spike

Amount

150

Recovery

Limits 64.7 - 162

1494

Work Order: 4060812 Jamar

Page Number: 8 of 15 Monument, NM

Sample: 35965 - Exc 7 M @ 3'

Analysis: QC Batch: Prep Batch:

**TPH GRO** 10298 9110

Analytical Method: Date Analyzed:

Date Prepared:

S 8015B 2004-06-08

2004-06-08

Prep Method: S 5035 Analyzed By: MT Prepared By: MT

RL

Result Dilution RLParameter Flag Units 0.100 GRO <1.00 mg/Kg 10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.860	mg/Kg	10	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)		0.842	mg/Kg	10	0.100	84	70 - 130

Sample: 35966 - Exc 7 M @ 6'

Analysis:

Chloride (IC)

QC Batch: 10335 Prep Batch: 9140

Analytical Method:

Date Prepared:

Date Analyzed:

E 300.0 2004-06-10 2004-06-09 Prep Method: N/A Analyzed By: JSW

JSW Prepared By:

RL

Parameter Result Dilution RLFlag Units 100 1.00 Chloride mg/Kg 5

Sample: 35966 - Exc 7 M @ 6'

Analysis: QC Batch: TPH DRO 10310

9118 Prep Batch:

Analytical Method: Date Analyzed:

Date Prepared:

Mod. 8015B 2004-06-09 2004-06-08

Prep Method: N/A Analyzed By: BP Prepared By: DS

RL

Parameter Result Dilution RLFlag Units DRO < 50.0 mg/Kg 50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		150	mg/Kg	1	150	100	64.7 - 162

Sample: 35966 - Exc 7 M @ 6'

Analysis: QC Batch: Prep Batch:

**GRO** 

**TPH GRO** 10298 9110

Analytical Method: Date Analyzed:

Date Prepared:

S 8015B 2004-06-08 2004-06-08 Prep Method: S 5035 Analyzed By: MT Prepared By: MT

Parameter Flag

RL Result < 1.00

Units mg/Kg Dilution 10

RL 0.100 1494

Chloride

Work Order: 4060812 Jamar Page Number: 9 of 15 Monument,NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.757	mg/Kg	10	0.100	76	70 - 130
4-Bromofluorobenzene (4-BFB)		0.866	mg/Kg	10	0.100	87	70 - 130

Sample: 35967 - Exc 7 N @ 3'

Analysis: Chloride (IC)
QC Batch: 10335
Prep Batch: 9140

Analytical Method: E 300.0
Date Analyzed: 2004-06-10
Date Prepared: 2004-06-09

Prep Method: N/A Analyzed By: JSW Prepared By: JSW

RL Parameter Flag Result

 RL
 Result
 Units
 Dilution
 RL

 752
 mg/Kg
 50
 1.00

Sample: 35967 - Exc 7 N @ 3'

Analysis: TPH DRO QC Batch: 10310 Prep Batch: 9118 Analytical Method: Mod. 8015B Date Analyzed: 2004-06-09 Date Prepared: 2004-06-08

Prep Method: N/A Analyzed By: BP Prepared By: DS

•					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		147	mg/Kg	1	150	98	64.7 - 162

Sample: 35967 - Exc 7 N @ 3'

Analysis: TPH GRO QC Batch: 10298 Prep Batch: 9110 Analytical Method: S 8015B
Date Analyzed: 2004-06-08
Date Prepared: 2004-06-08

Prep Method: S 5035 Analyzed By: MT Prepared By: MT

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.724	mg/Kg	10	0.100	72	70 - 130
4-Bromofluorobenzene (4-BFB)		0.836	mg/Kg	10	0.100	84	70 - 130

Sample: 35968 - Exc 7 S @ 3'

Analysis: Chloride (IC)
QC Batch: 10332
Prep Batch: 9138

Analytical Method: E 300.0
Date Analyzed: 2004-06-10
Date Prepared: 2004-06-09

Prep Method: N/A Analyzed By: JSW Prepared By: JSW 1494

Work Order: 4060812 Jamar

Page Number: 10 of 15 Monument,NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		1340	mg/Kg	100	1.00

### Sample: 35968 - Exc 7 S @ 3'

Analysis: TPH DRO QC Batch: 10310 Prep Batch: 9118

Mod. 8015B Analytical Method: Date Analyzed: 2004-06-09 Date Prepared: 2004-06-08

Prep Method: N/A Analyzed By: BP Prepared By: DS

RL Parameter Flag Result Units Dilution RLDRO <50.0 50.0 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		145	mg/Kg	1	150	97	64.7 - 162

### Sample: 35968 - Exc 7 S @ 3'

Analysis: **TPH GRO** QC Batch: 10298 Prep Batch: 9110

Analytical Method: S 8015B Date Analyzed: 2004-06-08 Date Prepared: 2004-06-08

Prep Method: S 5035 Analyzed By: MT Prepared By: MT

RLParameter Flag Result Units Dilution RL<1.00 **GRO** mg/Kg 10 0.100 Spike Percent Recovery Surrogate Flag Result Units Dilution Amount Recovery Limits 70 - 130 Trifluorotoluene (TFT) 0.703 mg/Kg 10 0.100 70 81 70 - 130 4-Bromofluorobenzene (4-BFB) 0.811 mg/Kg10 0.100

#### Method Blank (1) QC Batch: 10298

Parameter	Flag		Result		Units		RL
GRO			1.80		mg/K	g	0.1
					Spike	Percent	Recovery
Currogata	Elea	Dogult	I Insita	Dillertion	A	Dagana	Limita

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Triffuorotoluene (TFT)		1.02	mg/Kg	10	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)		0.755	mg/Kg	10	0.100	76	70 - 130

#### Method Blank (1) QC Batch: 10310

Parameter	Flag	Result	Units	RL
DRO	•	<50.0	mg/Kg	50

Work Order: 4060812 Jamar

Page Number: 11 of 15 Monument,NM

1494

Surrogate	Flag	g Re	esult	Units	Dilutio	n A	Spike Smount		rcent	Recovery Limits
n-Triacontane		142		mg/Kg	1		150	94		64.7 - 162
Matrix Blank	(1) QC 1	Batch: 10332	2							
Parameter		Flag	3		Result			Units		RI
Chloride					42.2			mg/Kg		1
Matrix Blank	(1) QC 1	Batch: 10335	5							
Parameter		Flag	g		Result			Units		RL
Chloride				43.1				mg/Kg	1	
Param GRO	LCS Result 8.86	LCSD Result 9.52	Units mg/Kg	Dil.	Spike Amount 1.00	Matrix Result <0.381	Rec.	RPD 7	Rec. Limit 70 - 130	RPD Limit 20
Percent recover									70 130	20
Surrogate			LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluen 4-Bromofluorol		BFB)	0.994 0.933	1.06 0.940	mg/Kg mg/Kg	10 10	0.100 0.100	99 93	106 94	70 - 130 70 - 130
Laboratory C	ontrol Spik		QC Batch	: 10310						
D	LCS	LCSD	I I:4	Dil	Spike	Matrix	D	D DD	Rec.	RPD
Param DRO	Result 234	Result 232	Units mg/Kg	Dil.	Amount 250	Result <12.0	Rec. 94	RPD 1	Limit 64.2 - 138	Limit 20
Percent recover									04.2 - 138	20
		LCS	LCSD			Spik	e	LCS	LCSD	Rec.
Surrogate		Result	Result	Units	Dil.	Amou		Rec.	Rec.	Limit
n-Triacontane		143	144	ma/K a	1	150		96	06	647 - 16

n-Triacontane 143 144 150 96 96 64.7 - 162 mg/Kg

Laboratory Control Spike (LCS-1) QC Batch: 10332

continued ...

1494

Work Order: 4060812

Jamar

Page Number: 12 of 15 Monument,NM

control spikes continued ...

Param		LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Param		LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	45	56.5	56.6	mg/Kg	1	12.5	42.2	114	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 10335

		LCS	LCSD			Spike	Matrix			Rec.	RPD
Param		Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	67	57.5	57.2	mg/Kg	1	12.5	43.1	115	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 10298

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
GRO	8.37	8.18	mg/Kg	10	1.00	< 0.381	84	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.858	0.778	mg/Kg	10	0.1	86	78	70 - 130
4-Bromofluorobenzene (4-BFB)	0.917	0.910	mg/Kg	10	0.1	92	91	70 - 130

Matrix Spike (MS-1)

QC Batch: 10310

	MS	MSD			Spike	Matrix			Rec.	RPD
Param	Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
DRO	237	235	mg/Kg	1	250	<12.0	95	1	62.4 - 128	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	150	148	mg/Kg	1	150	100	99	64.7 - 162

Matrix Spike (MS-1)

QC Batch: 10332

continued ...

<sup>&</sup>lt;sup>4</sup>Outside control limits due to soil blank high in chloride. All other QC's are in control.

<sup>&</sup>lt;sup>5</sup>High percent EA for Chloride due to Soil blank being so high in chloride. All Other QC's are in control.

<sup>&</sup>lt;sup>6</sup>High percent EA for Chloride due to Soil blank being so high in chloride. All Other QC's are in control.

<sup>&</sup>lt;sup>7</sup>High percent EA for Chloride due to Soil blank being so high in chloride. All Other QC's are in control.

Work Order: 4060812 Jamar Page Number: 13 of 15 Monument,NM

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	89	3040	3030	mg/Kg	100	12.5	1340	136	0	69.4 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

QC Batch: 10335

		MS	MSD			Spike	Matrix			Rec.	RPD
Param		Result	Result	Units	Dil.	Amount	Result	Rec.	RPD	Limit	Limit
Chloride	1011	1560	1560	mg/Kg	50	12.5	752	129	0	69.4 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 10298

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	0.929	93	85 - 115	2004-06-08

Standard (CCV-1)

QC Batch: 10298

,			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	0.890	89	85 - 115	2004-06-08

Standard (CCV-2)

QC Batch: 10298

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/L	1.00	0.941	94	85 - 115	2004-06-08

Standard (ICV-1)

QC Batch: 10310

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	232	93	64.2 - 138	2004-06-09

Standard (CCV-1)

QC Batch: 10310

<sup>&</sup>lt;sup>8</sup>matrix difficulties.

<sup>&</sup>lt;sup>9</sup>matrix difficulties.

<sup>&</sup>lt;sup>10</sup>matrix difficulties.

<sup>11</sup> matrix difficulties.

1494

Chloride

Work Order: 4060812

Jamar

Page Number: 14 of 15 Monument,NM

90 - 110

2004-06-10

			CCV-	CCV	CCV	D	
			CCVs True	CCVs Found	CCVs Percent	Percent	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Recovery Limits	Analyzed
DRO	1 lag	mg/Kg	250	252	101	64.2 - 138	2004-06-09
DKO		ilig/Kg	230	232	101	04.2 - 138	2004-00-03
Standard (	CCV-2) Q	C Batch: 10310					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	mg/Kg	250	252	101	64.2 - 138	2004-06-09
Standard (l	(CV-1) QC	Batch: 10332					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	12.5	11.8	94	90 - 110	2004-06-10
Standard (	CCV-1) QC	C Batch: 10332					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	12.5	11.7	94	90 - 110	2004-06-10
Standard (l	(CV-1) QC	Batch: 10335					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	12.5	11.7	94	90 - 110	2004-06-10
Standard (0	CCV-1) QC	C Batch: 10335					
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chlorida	·	ma/V a	12.5	110	04	00 110	2004 06 16

11.8

94

12.5

mg/Kg

custone about Disbnist mort free if different from standard ō CHAIN-OF-CUSTODY AND ANALYSIS REQUEST Check If Special Reporting Limits Are Needed 5285/4014 7 -055-953-6 Hq SST GOB Circle or Specify Method No. Pesticides 808 1 N/608 **ANALYSIS REQUEST** bCB.2 8085/608 CC/WS Semi Vol 8270C/625 CC:W2 API 85008/254 LAB Order ID # TCLP Pesticides 59W TCLP Semi Volatiles LAB USE ONLY TCLP Metals Ag As Ba Cd Cr Pb Se Hg Carner # 140 5 loial Meials Ag As Ba Cd Cr Pb Se Hg 6010B/2007 Log-in Review Temp 27 Headspace TPH 418 1/1X 1005 8015 1000 4 660 Intact 81EX 8021B/602 MTBE 80218/602 0/3 32/5/9 113 1341 É 15.57 8 814.1 1510 TIME 7911519 155 McCulcheon, Suile H El Paso, Texas 79932 Tel (915) 585-3443 Fax (915) 585-4944 i (868) 588-3443 .768-266 6/3 is S 6/3 77 **3TAQ** 01128 NONE Project Name: 1 A M.B. ICE HOEN NE , STE 300 Sampler Signature: Submittal of samples constitutes agreement to Terms and Conditions fisted on reverse side of C.O.C. ORIGINAL COPY 'OS'H Date: Date: TraceAnalysis, Inc. CONH HCI ernoee MATRIX AIR TIOS **MATER** Received by: Received by InnomAlamuloV いりをかり SET CONTAINERS グロスタ Time: NW 3 IONUMENT. FIELD CODE O Q 6/1 Date: 6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424 16 (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 different from above) t. Company Name: Contact Person: roject Location Relinquished by (LAB USE) 35958 89 B Project #: 0 Address:

### TraceAnalysis, Inc. **General Terms and Conditions**

#### Article 1: General

1.1 The words "we" "us", and our" refer to TraceAnalysis. You will deliver camples to us for analysis, accompanied, or preceded by, a signed Chain or Custody/Analysis. Flor care converging scope and aming or our work and stating either the testing criteria you require or identifying the agency to which the restrict a nine scholars.

- 2.1 We agree to provide the professional services described in this agreement. Ne will provide you will written reports containing analytical residence and service reports of care and skill ordinarily exercised under similar circumstances by reputable members of our protession tractioning is a some locality
- 2.2 Test and observations will be conducted using test procedures and laboratory protocols as spiral air accopted Chain of Custody/Analysis Request, if you onest in absence of making tests that varies standard or recommended procedures, you agree to hold us harmless from all claims, damages, and expenses arising out of your direction.

#### Article 3: Your General Responsibilities

- 3.1 On each Chain of Custody/Analysis Request you will designate a representative who has authors, to transmit instructions, receive information, and make decisions, estable to Culture to
- 3.2 You will respond in a reasonable time to our request for decisions, authorization for changes, assistance compensations, or schedule extensions

. .

ş + + ~

3.3 For each Chain of Custody/Analysis Request you will either provide us with the exact methods for analysis of each fraction or you will identify the regulations and approxy under which or nor which the analysis are to be prepared. If permits, consent orders, work plans, quality assurance plans, or consepondence with regulatory agencies address laboratory requirements, you will provide us with copies of the relevant provisions prior to our initiation of the analysis

#### Article 4: Reports and Records

4.1 We will furnish copies of each report to you as specified in the Chain of Custrety and Analysis (Sucrety, the will remain an divited data for sower) years and fraged and remainder in the Chain of Custrety and Analysis (Sucrety, the will remain an divited data for sower) years and fraged and remainder in the Chain of Custrety and Analysis (Sucrety, the will remain an divited data for sower) years and fraged an area from the Chain of Custrety and Analysis (Sucrety, the will remain an divited data for sower) years and fraged an area from the Chain of Custrety and Analysis (Sucrety). tollowing transmittal of our final report.

\$ 2 if you do not pay to; our convictes as agreed, you ensee that which is

### Article 5: Delivery and Acceptance of Samples

- 5.1 Until we accept delivery of samples by notation on chain of custody ducuments or otherwise as system, accept the samples, you are responsible for local of or pathenous, samples as acceptable with a acceptable samples. responsibility as to samples.
- 5.2 As to any samples that are suspected of containing translatious substances of indicative material is all that would make appoint handing required, you will specify the containing material is a substance. I april to d and type of radioactive activity. This information will be given to be in writing to a lead or the colors. I black the Arath as Request and will procede or accombenging the extractive of the colors and the colors and the colors and the colors are colors.
- 5.3 Samples accepted by us remain your property while in our custody. We will estain senores for a period of 14 days following the date of submission, of our report. We will extend one open property and you so direct Following the retention period we will dispose of non-hozardous samples. We may return highly hazardous, a cutely toxic, or radicactive samples and samples correless and residue, it is no You agree to accept their
- 5.4 Regardless of a prior acceptance, we may refuse acceptance or revoke acceptance of samples flowe determine that the samples present a risk to health, safety, or the engineering that authorized to accept them. If we revoke acceptance of any sample, you will have it removed from our facilities primpty. . . . . .

- 6.1 No persons other than the designated representatives for each Chain of Custody/Analysis Request are authorized to act regarding changes to a Chain of Custody/Analysis Request. We will notify you promotily if we identity any activity that we regard as a change to the terms and conditions of a Chain of Custody/Analysis Request. Our notice will include the date, nature, circumstance, what extres and conditions of a Chain of Custody/Analysis Request. Our notice will include the date, nature, circumstance, which extress and conditions of a Chain of Custody/Analysis Request. We will specify the particular elements of project performance for which we may seek an equitable adjustment.
- 6.2 You will respond to the notice provided for in paragraph 6.1 promptly. Changes may be made to a Chain of Custody/Analysis Request through issuance of an enendment. The arrie tomant will specify the reason for the change and, as appropriate, include any modified budgets, schedules, scope of work, and other necessary provisions.
- 6.3 Until agreement is reached concerning the proposed change, we may regard the situation as a suspension directed by you.

- 7.1 Our pricing for the work is predicated upon your acceptance of the conditions and allocations of risks and responsibilities described in this agreement. You agree to pay for services as stated in our proposal and accepted by you or according to our then current standard pricing documents if there is no other written agreement as to price. An estimate or statement of probable cost is not a time, figure unless stated as such.
- 7.2 Unless offerwise agreed to elsewhere, you agree to pay invoices within 30 days of receipt unless, within 15 days from receipt of the invoice, you notify us in writing of a profession ten that is alleged to be incorre You agree to pay the uncontested portions of the invoices within 30 days of receipt. You agree to pay interest on unpaid balances beginning 60 days after receipt of newlins intoher and the case of 1.5% per month, is exceed the maximum rate allowed by law.
- 7.3 If you direct us to invoice another, we will do so, but you agree to be unimately responsible for our compensation until you provide us with that third party's written accompanded after our agreement and u we agree to the substitution.
- 7.4 You agree to compensate us for our services and expenses if we are required to respond to logal process related to our services for you. Compensable services include Example for our services and expenses if we are required to respond to logal process related to our services for you. Compensable services include Example for our services and expenses if we are required to respond to logal process related to our services for you. Compensable services include Example for the example for th the response and attorney fees reasonably incurred in obtaining advice concerning the response; the preparation of the testifier, and appearances related to the legal process.
- 7.5 If we are delayed by, or the period of performance is materially extended because of, factors beyond our control, or if project condition or the scope or amount of work change, or if the standards or methods of testing change. we will give you timely notice of the change and we will receive an equitable adjustment of our compensation.

### Article 8: Risk Allocation, Disputes, and Damages

- 8,1 Neither we nor you will be liable to the other for special, incidental, consequential or punitive losses or damages, including but not limited to those arising from delay, loss of use, loss of profits or revenue, or the cost
- 8.2 We will not be liable to you for damages unless suit is commenced within two years of injury or loss or within two years of the date of the completion of our services, whichever is earlier. In no event will we be liable to you unless you have notified us of the discovery of the negligent act, error, omission or breach within 30 days of the date of its discovery and unless you have given us an opportunity to investigate and to recommend ways of mitigating your damages.
- 8.3 In the event you fail to pay us within 90 days following the invoice date, we may consider the default a total breach of our agreement and we may, at our option, terminate all of our duties without liability to you or to others
- 8.4 If it is claimed by a third party that we did not complete an acceptable analysis, at your request we will seek further review and acceptance of the completed work by the third party and use your best efforts to obtain that acceptance. We will assist you as directed.
- 8.5 You and we agree that disputes will be submitted to "Alternative Dispute Resolution" (ADR) as a condition precedent to litigation and other remedies provided by law. Each of us agrees to exercise good faith efforts to resolve disputes through mediation unless we both agree upon another ADR procedure. All disputes will be governed by the law of the place where our services are rendered, or if our services are rendered in more than one state, you and we agree that the law of the place that services were first rendered will govern.
- 8.6 If either of us makes a claim against the other as to issues out of the performance of this agreement, the prevailing party will be entitled to recover its reasonable expenses of https://doi.org/10.1001/j.j.com/party/selection/party/selection fees, if we bring lawsuit against you to collect our invoiced fees and expenses, you agree to pay our reasonable collection expenses including attorney reasonable.

9.1 We will indemnify and hold you harmless from and against demands, damages, and expenses caused by our negligent acts and omissions and breach of contract and by the negligent acts and omissions and breach of contract of persons for whom we are legally responsible. You will indemnify and hold us harmless from end against demands, demages, and expenses caused by jour negligent act and omissions and breach of contract and by the negligent acts and omissions and breach of contract of persons for whom you are legally responsible. These indemnifies are subject to specific limitations provided not all missions are provided to the most of the specific limitation of persons for whom you are legally responsible.

### Article 10: Miscellaneous Provisions

- 10.1 This agreement constitutes the entire agreement between you and us, and it supersedes all prior agreements. Any term, condition, prior course of dealing, course of partornance, usage of trade, understanding, purchase order conditions, or other agreement purporting to modify, vary, supplement, or explain any provision of this agreement is of no effect until placed in writing and signed by both parties subsequent to the date of this agreement. In no event will the printed terms or conditions stated in a purchase or work order, other than an agreed upon Chain of Custody/Analysis Request, be considered a part of this agreement, even if the document is signed by both of us.
- 10.2 Neither party will assign this agreement without the express written approval of the other, but we may subcontract laboratory procedures with your approval as we deem necessary to meet our obligations to you.
- 10.3 If any of the provisions of this agreement are held to be invalid or unenforceable in any respect, the remaining terms will be in full effect and the agreement will be construed as if the invalid or unenforceable matters were never included in it. No waiver of any default will be waiver of any future default.
- 10.4 Neither you or we will have any liability for nonperformance caused in whole or in part by causes beyond our reasonable control. Such causes include but are not implied to Acts of God [civil unrest and we unrest and strikes, equipment failures, matrix interference, acts of authorities, and failures of subcontractors that could not be reasonably authorpated.
- 10.5 You may stop our work by giving a written suspension or termination directive, but once work eas been suspended, we need not researce work until we agree to change in scope, schedule, and compensation suspension or termination, we will use reasonable care to preserve samples provided that you agree to compensate us for any additional effort, but we will have no recognished your meeting holding time limitations after the affective time of a suspension or termination directive. We will be componented for service rendered and expenses incurred orior to termination that cannot reuse made by a Avested



## **COVER LETTER**

February 25, 2005

John Bunch Respec 4775 Indian School Rd., NE Suite 300 Albuquerque, NM 87110 TEL: (505) 268-2661 FAX (505) 268-0040

RE: Jamar

Order No.: 0502088

Dear John Bunch:

Hall Environmental Analysis Laboratory received 6 samples on 2/9/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager



Date: 25-Feb-05

CLIENT:

Respec

Project:

Jamar

Lab Order:

0502088

**CASE NARRATIVE** 

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Date: 25-Feb-05

**CLIENT:** 

Respec

Client Sample ID: Exc 8 S @ 1'

Lab Order:

0502088

Collection Date: 2/2/2005 9:00:00 AM

Project:

Jamar

Lab ID:

0502088-01

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Chloride	670	6.0	mg/Kg	20	2/15/2005
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS				Analyst: SCC
Diesel Range Organics (DRO)	510	10	mg/Kg	1	2/15/2005 10:12:10 AM
Motor Oil Range Organics (MRO)	430	50	mg/Kg	1	2/15/2005 10:12:10 AM
Surr: DNOP	105	60-124	%REC	1	2/15/2005 10:12:10 AM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	2/14/2005 9:07:14 PM
Surr: BFB	104	78.3-120	%REC	1	2/14/2005 9:07:14 PM

2/11

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 25-Feb-05

**CLIENT:** 

Respec

Client Sample ID: Exc 8 M @ 2'

Lab Order:

0502088

Collection Date: 2/2/2005 9:30:00 AM

**Project:** 

Jamar

Lab ID:

0502088-02

Matrix: SOIL

Analyses	Result	PQL C	ual Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS			·		Analyst: MAP
Chloride	ND	1.5	mg/Kg	5	2/14/2005
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS				Analyst: SCC
Diesel Range Organics (DRO)	52	10	mg/Kg	1	2/15/2005 10:41:44 AM
Motor Oil Range Organics (MRO)	94	50	mg/Kg	1	2/15/2005 10:41:44 AM
Surr: DNOP	101	60-124	%REC	1	2/15/2005 10:41:44 AM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	2/10/2005 8:39:14 PM
Surr: BFB	105	78.3-120	%REC	1	2/10/2005 8:39:14 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 25-Feb-05

**CLIENT:** 

Respec

Client Sample ID: Exc S @ 2'

Lab Order:

0502088

Collection Date: 2/2/2005 10:00:00 AM

Project:

Jamar

Lab ID:

0502088-03

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Chloride	940	6.0	mg/Kg	20	2/15/2005
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				Analyst: SCC
Diesel Range Organics (DRO)	13	10	mg/Kg	1	2/14/2005 2:43:06 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	2/14/2005 2:43:06 PM
Surr: DNOP	95.3	60-124	%REC	1	2/14/2005 2:43:06 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	2/10/2005 9:38:39 PM
Surr: BFB	105	78.3-120	%REC	1	2/10/2005 9:38:39 PM

4/11

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 25-Feb-05

**CLIENT:** 

Respec

Client Sample ID: Exc 8 M @ 1'

Lab Order:

0502088

Collection Date: 2/2/2005 10:30:00 AM

Project: Lab ID: Jamar

0502088-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS		•				Analyst: MAP
Chloride	ND	1.5		mg/Kg	5	2/14/2005
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS					Analyst: SCC
Diesel Range Organics (DRO)	5500	1000		mg/Kg	100	2/14/2005 3:12:59 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	2/14/2005 3:12:59 PM
Surr: DNOP	0	60-124	S	%REC	100	2/14/2005 3:12:59 PM
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/14/2005 9:37:04 PM
Surr: BFB	103	78.3-120		%REC	1	2/14/2005 9:37:04 PM

5/11

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 25-Feb-05

Collection Date: 2/2/2005 11:00:00 AM

**CLIENT:** 

Respec

Client Sample ID: T 13 @ 1'

Lab Order:

0502088

Jamar

Project: Lab ID:

0502088-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Chloride	1400	6.0		mg/Kg	20	2/15/2005
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS					Analyst: SCC
Diesel Range Organics (DRO)	48000	1000		mg/Kg	100	2/14/2005 3:42:53 PM
Motor Oil Range Organics (MRO)	18000	5000		mg/Kg	100	2/14/2005 3:42:53 PM
Surr: DNOP	0	60-124	s	%REC	100	2/14/2005 3:42:53 PM
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	2/10/2005 11:07:44 PM
Surr: BFB	108	78.3-120		%REC	10	2/10/2005 11:07:44 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 25-Feb-05

CLIENT:

Respec

Lab Order:

0502088

Project:

Jamar

Lab ID:

0502088-06

Client Sample ID: T 13 @ 2'

Collection Date: 2/2/2005 11:30:00 AM

Matrix: SOIL

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Chloride	8.7	1.5	mg/L	5	2/14/2005
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS				Analyst: SCC
Diesel Range Organics (DRO)	120	10	mg/Kg	1	2/15/2005 11:11:35 AM
Motor Oil Range Organics (MRO)	230	50	mg/Kg	1	2/15/2005 11:11:35 AM
Surr: DNOP	104	60-124	%REC	1	2/15/2005 11:11:35 AM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	2/14/2005 10:06:54 PM
Surr: BFB	102	78.3-120	%REC	1	2/14/2005 10:06:54 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

boratory
Lab
Analysis
Environmental
Hall

Method Blank QC SUMMARY REPORT Respec 0502088 Jamar CLIENT: Work Order: Project:

**Date:** 25-Feb-05

Sample ID MB-7414	Batch ID: 7414	Test Code: E300	E300	Units: mg/L		Analysis	Analysis Date 2/14/2005	005	Prep Dat	Prep Date 2/14/2005	
Client ID:		Run ID:	LC_050214A			SedNo:	339724				
Analyte	Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	LowLimit HighLimit RPD Ref Val	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	Q	0.3									
Sample ID MB-7412	Batch ID: 7412	Test Code: SW8015	SW8015	Units: mg/Kg		Analysis	Date 2/14/2	Analysis Date 2/14/2005 12:11:43 PM	Prep Dat	Prep Date 2/14/2005	Ì
Client ID:		Run ID:	FID(17A) 2_050214A	30214A		SeqNo:	339696				
Analyte	Result	Pol	SPK value	SPK value SPK Ref Val	%REC	LowLimit	LowLimit HighLimit RPD Ref Val	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	ND ND (0	10 50 0	10	0	7.79	09	124	0			
Sample ID MB-7400 Client ID:	Batch ID: <b>7400</b>	Test Code: SW8015 Run ID: PIDFID_	SW8015 U	Units: mg/Kg 10A		Analysis SeqNo:	Date 2/10/20 338993	Analysis Date 2/10/2005 5:11:07 PM SeqNo: 338993	Prep Dat	Prep Date <b>2/9/2005</b>	
Analyte	Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	LowLimit HighLimit RPD Ref Val	Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr. BFB	) ND 1023	0 2	1000	0	102	78.3	120	0	· · · · · · · · · · · · · · · · · · ·	:	

8/11

CLIENT: Respec Work Order: 0502088

Sample Matrix Spike

QC SUMMARY REPORT

Date: 25-Feb-05

Work Order: 0502088
Project: Jamar

Sample ID <b>0502088-03a ms</b>	Batch ID: <b>7400</b>	Test Code: SW8015	SW8015	Units: mg/Kg		Anafysis	Date 2/11/200	Analysis Date 2/11/2005 12:07:07 AM Prep Date 2/9/2005	Prep Dat	e 2/9/2005	
Client ID: Exc S @ 2'		Run ID:	PIDFID_050210A	10A		SeqNo:	339011				
Analyte	Result	Pol	SPK value	SPK value SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	D Ref Val	%RPD	%RPD RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	24.52	0	25 1000	00	98.1 108	84 78.3	120	0 0			
Sample ID 0502088-03a msd Client ID: Exc S @ 2'	Batch ID: 7400	Test Code: SW8015 Run ID: PIDFID_	SW8015 U PIDFID_050210A	Units: mg/Kg		Analysis SeqNo:	Date 2/11/2009	Analysis Date 2/11/2005 12:36:51 AM Prep Date 2/9/2005 SeqNo: 339016	Prep Date	e 2/9/2005	1
Analyte	Result	POL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	LowLimit HighLimit RPD Ref Val	D Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	26.85	5	1000	0 0	107	84 78.3	120	24.52 1083	9.07	11.6	

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

7

Laboratory Control Spike - generic QC SUMMARY REPORT Respec 0502088 Jamar Work Order: CLIENT: Project:

Date: 25-Feb-05

Sample ID LCS-7414 Client ID:	Batch ID: <b>7414</b>	Test Code: E300 Run ID: LC_0	E300 LC_050214A	Units: mg/L		Analysis SeqNo:	Analysis Date 2/14/2005 SeqNo: 339726	105	Prep Date 2/14/2005	2/14/2005	
Analyte	Result	Pol	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD R	RPDLimit	Qual
Chloride	14.51	0.3	15	0	96.8	06	110	0			1
Sample ID LCS-7412 Client ID:	Batch ID: 7412	Test Code: SW8015 Run ID: FID(17A)	SW8015 Units: FID(17A) 2_050214A	Units: mg/Kg 50214A		Analysis SeqNo:	339697	Analysis Date 2/14/2005 12:42:24 PM SeqNo: 339697	Prep Date 2/14/2005	2/14/2005	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	LowLimit HighLimit RI	RPD Ref Val	%RPD RF	RPDLimit	Qual
Diesel Range Organics (DRO)	54.31	10	50	0	109	67.4	117	0	:		
Sample ID LCSD-7412	Batch ID: 7412	Test Code: SW8015	SW8015	Units: mg/Kg		Analysis	5 Date 2/14/20	Analysis Date 2/14/2005 1:12:18 PM	Prep Date 2/14/2005	2/14/2005	
Client ID:		Run 1D:	FID(17A) 2_050214A	50214A		SedNo:	339699				
Analyte	Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit R	RPD Ref Val	%RPD RF	RPDLimit	Qual
Diesel Range Organics (DRO)	45.33	10	- 20	0	90.7	67.4	117	54.31	18.0	50	
Sample ID LCS-7400	Batch ID: <b>7400</b>	Test Code: SW8015	SW8015	Units: mg/Kg		Analysis	Date 2/10/20	Analysis Date 2/10/2005 5:40:54 PM	Prep Date 2/9/2005	2/9/2005	
Client ID:		Run ID:	PIDFID_050210A	10A		SeqNo:	338994		٠		
Analyte	Result	PaL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit Ri	RPD Ref Val	%RPD RF	RPDLimit	Qual
Gasoline Range Organics (GRO)	) 26.63	2	25	0	107	84	120	0			
Sample ID GRO std 2.5ug Client ID:	Batch ID: 7400	Test Code: SW8015 Run ID: PIDFID	SW8015 U	Units: mg/Kg 14A		Analysis SeqNo:	339613	Analysis Date 2/14/2005 11:06:45 PM SeqNo: 339613	Prep Date		
Analyte	Result	Pal	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RI	RPD Ref Val	%RPD RF	RPDLimit	Qual
Gasoline Range Organics (GRO)	) 25.75	υ Ω	25	0	103	84	120	0		:	

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Qualifiers:

10/11

	Sample	Rece	eipt Che	ecklist			
Client Name RESPEC				Date and Time	Received:	2/9/	2005
Work Order Number 0502088				Received by	AT		
Checklist completed by Signature		_	Date	> / 0	1/05		
Matrix	Carrier name	Clier	nt drop-off	Ī.			
Shipping container/cooler in good condition?		Yes	<b>~</b>	No 🗆	Not Present		
Custody seals intact on shipping container/coole	r?	Yes		No 🗆	Not Present	Not Shipped	
Custody seals intact on sample bottles?		Yes	<b>✓</b>	No 🗆	N/A		
Chain of custody present?		Yes	$\checkmark$	No 🗆			
Chain of custody signed when relinquished and	eceived?	Yes	$\checkmark$	No 🗌			
Chain of custody agrees with sample labels?		Yes	$\checkmark$	No 🗆			
Samples in proper container/bottle?		Yes	V	No 🗆			
Sample containers intact?		Yes	V	No 🗆			
Sufficient sample volume for indicated test?		Yes	$\checkmark$	No 🗆			
All samples received within holding time?		Yes	V	No 🗆			
ter - VOA vials have zero headspace?	No VOA vials subr	nitted	<b>✓</b>	Yes 🗌	No 🗆		
Water - pH acceptable upon receipt?		Yes		No 🗆	N/A 🗹		
Container/Temp Blank temperature?			1°	4° C ± 2 Accepta			
COMMENTS:							
•							
Client contacted	Date contacted:			Pers	son contacted		4 60-4
Contacted by:	Regarding						
Comments:		J					
Corrective Action							

	HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D	Albuquerque, New Mexico 87109 Tel. 505.345.3975 Fax 505.345.4107	_	ANALYSIS REQUEST	(4)	nO əni (ləsə ( <sub>\p</sub> OS	lloss0	TPH (68 (68 (68 (68 (68 (68 (68 (68 (68 (68	+ 381 108 boo 108 b	M + X3T8 TH Methory TPH Methory TPH (Methory	X	X	X	×	X	X				Remarks:	
1 000 00	Std 🗀 Level 4 🗀 Other:	Project Name:	SIMAN	Project #:		Project Manager:	JOHN TAMES	15.70	nre:	Number/Volume HgCl <sub>2</sub> HNO <sub>3</sub> HEAL No.	1-1802038-1	2-	-	7	5	9-	,			Received By Signatured 2/9/65 Re	Received By: (Signature)
	CHAIN-OF-CUSTODY RECORD	Client: Cosses		Address 4775 MiGASIND ME		OILTS IN BOTH		Phone #: 28-261	Fax #: 268-0040	Date Time Matrix Sample I.D. No.	3/2/15 900 sed 8c 8 5011	1 9:30   EXC [MQ] 2"	(1)	" 10:30   Sec 8 Mal"	" 11:00 T13.0 1'	11 1820 1 713021				Date: Time: Refinduished By, Bignature)	Date: Time: Relinquished By: (Signature)

### DEFINITIONS

"Acceptance of a sample" means the determination of HEAL to proceed with work following receipt and inspection of such sample.

44

- 1.2 "Customer" means the individual or entity who may request laboratory services and his or its heirs, successors, assigns, and representatives
- 3 HEAL means Hall Environmental Analysis Laboratory its employees servants, agents, and representative.

"Price schedule" means HEAL'S standard price schedule, as such

<u>-</u>

ū

document may be amended from time to time by HEAL.

"Results" mean data generated by HEAL from the analysis of one or more

4.5

- samples.

  1 6 "Terms and Conditions" mean these Terms and Conditions of sale,
- including the Price Schodule, and any additions or americand thereto which are agreed to in writing by HEAL as provided in Section 7.1

### 2. ORDERS

--

The customer may order services by submitting a written purchase order to HEAL, by placing a telephone order, which will be subsequently confirmed in writing, or by negotiated contract. Any such order constitutes a) an acceptance by the Customer of HEAL.'S offer to do business with the Customer under these Terms and Conditions, and b) an agreement to be bound by these Terms and Conditions. The Customer's delivery of samples to HEAL constitutes the Customer's express assent to be governed by these Terms and Conditions. HEAL reserves the right to refuse to proceed with work at any time based upon an unfavorable customer credit report.

5.2

Any order placed by the Customer under Section 2.1 is subject to a minimum cancellation charge of \$250.

## PAYMENT TERMS

22

بي \_

Services performed by HEAL will be in accordance with prices quoted and later confirmed in writing or as stated on the Price Schedule, which prices are subject to change periodically without notice. The Customer should confirm with HEAL the current price prior to placing an order for work

53

Payment terms are ned 30 days from the date of invoice by HEAL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) per month or portion thereof from the due date until the date of payment. All payments shall be made in United State currency.

32

The prices stated on the Price Schedule do not include any sales, use or other taxes unless specifically stated. Such taxes will be added to invoice prices when required.

r r

## 4. RECEIPT OF SAMPLES AND DELIVERY OF SERVICES

4

Prior to HEAL'S Acceptance of any sample (or after any revocation of Acceptance), the entire risk of loss or damage to such sample will remain with the Customer. In no event will HEAL have any responsibility or liability for the action or transion of HEAL'S carrier shipping or delivering any sample to or from HEAL'S premises.

5.5

42

HEAL reserves the absolute right, exercisable at any time to refuse delivery of, refuse to accept, or revoke Acceptance or, any sample which in the sole judgement of HEAL a) is of unsainable volume, b) unsuitable containers as required for the requested analysis, or c) may be or become unsuitable for, or may pose a risk in, handling, transport or processing for any health, safety, environmental or other reason, whether or not due to the presence in the sample of any hazardous substance and whether or not such presence has been disclosed to HEAL by the Clustomer.

5.6

Where applicable, HEAL will use analytical methodologies which are in substantial conformity with U.S. Environmental Protection Agency (EPA), state agency, American Society for Testing and Materials (ASTM), Association of Official Analytical Chemist (AOAC), Standard Methods for the examination of Water and Wastewater, or other recognized methodologies. HEAL reserves the right to deviate from these

43

methodologies, if necessary of appropriate due to the nature of composition of the sample or otherwise based on the reasonable judgement of HEAL, which deviation, if any will be made on a basis consistent with recognized standards of industry and or HEAL'S Standard Operating Procedures.

**S** 7

Upon timely delivery of samples, HEAL will use its best efforts to comply with storage, processing and analytical holding time limits as set forth in applicable EFA or state guidelines or otherwise requested by the Customer or set forth on the Price Schedule. However, unless specifically made part of a written agreement between HEAL and the Customer, such time limits cannot be guaranteed. Unless specifically indicated on the Price Schedule or expressly made part of a written agreement between HEAL and the Customer, analytical turnaround times are not guaranteed.

S.8

At HEAL'S tole discretion, verbal Results may be given in advance of the written report of Results. Such verbal Results are TENTATIVE RESULTS ONLY, subject to confirmation or change based on HEAL'S standard quality assurance review procedures.

## WARRANTIES, LIABILITY AND INDEMNIFICATION

'n

5.1

- HEAL warrants only that its services will fitfill obligations set forth in Section 4.3 and 4.4 hereof. This warranty is the sole and exclusive warranty given by HEAL in connection with any such services, and HEAL gives and makes no other representation or warranty of any kind, express or implied. No representative of HEAL is authorized to give or make any other representation or warranty or modify the warranty in any way.
- The liability and obligations of HEAL, and the remedies of the Customer in connection with any services performed by HEAL will be limited to repeating the services performed or, at the sole option of HEAL, refunding in full or in part fees paid by the Customer for such services. HEAL 'S obligation to repeal any services with respect to any sample will be contingent on the Customer's providing, at the request of HEAL and at the Customer's expense, an additional sample if necessary Any reanalysts generating Results consistent with the Original Results will be at the Customer's expense, Except as otherwise specifically provided herein, HEAL shall have no liability, obligation or responsibility of any kind for any losses, costs, expenses, or other damages (including but not limited to any special, indirect, incidental or consequential damages) for any representation or warranty of a kind with respect to HEAL'S Services or Results.
- In no event shall HEAL have any responsibility or liability to the Customer for any failure or delay in performance by HEAL, which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of HEAL. Such cause and circumstance shall include, but not be limited to, acts of God, acts of Customer, acts of orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disputes, the faculties or delays in transportation, mail or delivery services, mability to obtain from HEAL usual sources sufficient services or supplies, or any other cause beyond HEAL'S reasonable control.
- All results provided by HEAL are strictly for the use of its Customers and HEAL is in no way responsible for the use of such results by Customers or third parties. All results should be considered in their eritrety, and HEAL is in no way responsible for the separation, detachment, or other use of any portion of the results.

5.4

- The customer represents and warrants that any sample delivered to HEAL will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by the customer. The Customer further warrants that any sample contaming any hazardous substance, which is to be delivered to HEAL 'S premises will be peakinged, labeled, thrasported and delivered properly and in accordance with applicable laws.
- It is understood and agreed that all samples and outings of materials containing hexactous contaminants are the property and the responsibility of the Customer. All combarinanced samples and laboratory byproducts will be returned to the Customer for disposal. It is understood and agreed that HEAL is not, and has no responsibility as, a generator, treater, storer, or disposer of hazardous or toxic substances found or identified at a site, and the Customer agrees to assume the responsibility for the foregoing.

- The Customer shall inderunity and hold harmless HEAL from and against any and all claims, suits, judgements, damages, losses, liabilities, expenses, payments, taxes, duties, fines and/or other costs (including but not limited to liability to a third party) arising out of a) the presence of hazardous substances in any sample of the Customer regardless of the Customer's compliance with paragraph 5.5 hereof b) accidents occurring during the transport of any sample of the Customer, c) events control, or d) negligence by the Customer in the use, evaluation, or application of Results provided by HEAL.
- Should any Customer sample, due to its matrix or constituents of its matrix, cause the operations of any HEAL instrumentation to be reduced, stopped, or altered, HEAL is entitled to compensation by the Customer for any loss of revenue due to the instrument's downtime, and/or the parts and labor necessary to bring the instruments back to its former operating condition. The amount of compensation is negotiable upon acceptance of these Terms and Conditions and the individual circumstances warranting the rembursement.

## 6. ENTIRE AGREEMENT: SEVERABILITY

6

- These Terms and Conditions, togethe with any additions or revisions which may be agreed to in writing by HEAL as provided in Section 7.1, embodied the whole agreement of the parties. There are no promises, terms, conditions, understandings, obligations or agreements other than those contained heren, unless made in accordance with Section 7.1, and these contained heren, unless made in accordance with Section 7.1, and these Terms and Conditions shall supersede all previous communications, representations, or agreements, either webal or written, between the Customer and HEAL. HEAL specifically rejects all additional, moonsustent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Customer to HEAL
- The invalidity or unenforceability, in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions, the intent of the parties being that the provisions be severable.

6.2

## 7. AMENDMENTS AND WAIVERS

7.1

- HEAL shall not be subject to or bound by any provision, term or condition which is in addition to or inconsistent or conflicting with these Terms and Conditions. HEAL shall not be deemed to have amended or waived and provision, term or condition, or have given any required consent or approval, or to have waived any breach by the Customer of any of these Terms and Conditions unless specifically set forth in writing and executed on behalf of HEAL by a duly authorized officer. No other employee, servant, agent or representatives of HEAL has any authority whatsoever to add to, delete, after or vary any of these Terms and Conditions in any manner, or to give any consent, approval or waiver, and HEAL shall not be bound by any such purported addition, deletion, afteration, variation, consent, approval or
- No waiver by HEAL of any provision, term or condition hereof or of any breach by or obligation of the Customer hereunder shall constitute a waiver of such provision, term or condition on any other occasion or a waiver of any other breach by or obligation of the Customer.

7.2

## SAMPLE STORAGE

<u>...</u>

Bulk samples will be retained for thirty (30) days after the analytical report has been issued unless alternate arrangements have been made in advance Storage of samples or extracts for longer periods is by request only. Sample storage charges depend upon storage equirements and duration. Normally, a sample storage fee of \$5.00 per sample, per month will be billed monthly unless other arrangements are made. If requested, unused sample material may be returned at the client's expense. Materials, which are identified as hazardous, will be returned to the dient or disposed of as hazardous waste and billed at the rate of \$5.00 per sample. HEAL reserves the right to return all dibroux-dioxins/diberzzofurars to the client.

## 9. SECTION HEADING

9.

The section headings of these Terms and Conditions are intended solely for convenient reference and shall not define, limit or affect in any way These Terms and Conditions or their interpretations.

## 10. GOVERNING LAW

10.1 These Terms and Conditions, and transaction or agreement, to which they apply, shall be governed both as to interpretation and performance by the laws of the State of New Mexico.

### **APPENDIX G**

## SOIL BORE LOGS WITH WELL COMPLETION DIAGRAMS



PROJECT PROJECT CLIENT NA	NO.: AME:	Jamar 1494-1.0 OCD			٨	DATE: 5-25-004 Page 1 Of LOGGED BY J.Bunch SITE ELEV.: DRILLING METHORITOR Well/Boring No.: 1 GW DEPTH:	6 HOD: ~28'	HAS
Depth	Blow count	PID (ppm)	Sample	Graphic	nscs	Geologic Descripton	W€	ell Design
1 2 3					SM			
5 6						Brown, silty loam with organics		
7 8 9	7,4,8	0.0	X			Buff, f.g. silty sand		
11 12 13 14	3,5,10	0.0	x			Tan, f.g. sand, slight moisture		
15 16 17 18 19	4,9,16	0.0	×		GM	Tan f.g. sand to 16.5'. @ 16.5' buff sand w/ CaCO3 Slightly cemented - moist		
20 21 22 23 24	8,12,5	0.0	x		SM	Tan/buff f.g. sand w/caliche nogules - moist		
25 26 27 28 29 30	16,20,5	0.0	X		CL	buff sand/caliche very moist air/water interface Static Water Level		
31 32 33 34	12,8,8	0.0				~28' saturated f.g. sand reddish/brown/gray		
35 36 37 38 39 40						Well Specifications - TD: 38.5' 0.010 Screened Interval 38-23' Sand Interval 38-22.7' Bentonite Seal 22.7-19' Grout 19' to surface		



PROJECT PROJECT		Jamar 1494-1.0		<u></u>		DATE: 5-25-004	Page 2	Of	6		
CLIENT N		0CD				LOGGED BY: J.Bunch SITE ELEV.:	DRILLING M	AETHO!	٦.	HAS	
CLIENTIN	AIVIE.	OCD				Monitor Well/Boring No.: 2	GW DEPTH		-26.5'	пдо	ľ
	1 =				Γ'	The state of the s	OW DET TH	·	20.0		
<b>∮</b>	Blow count	PID (ppm)	Sample	Graphic	nscs			1			}
Depth	} ≥	💆	E	l a	<u>S</u>	Geologic Descripton			We	II Desi	gn
1 5	<u></u>	=	ώ	٥	ا ا						- 1
1	<del></del> -	<del>                                     </del>		<u> </u>	_						
2	1			1 :				Γ			
3				1	SM			İ			
4	]							İ			- 1
5		] ]		Ì	Ì	Brown, sandy loam		}		]	]
6		_		liminin				1	ļ	1	
7	3*3*3	0.0	X			Tan, f.g. sand (slight moisture)			1	-	ŀ
8 9	-	}								1	ł
10	-										l
11		1 1							i	- 1	
12	9*20*20	0.0	Х			Tan, f.g. sand to 11'		- (		l	
13	1		•			at 11' hard caliche - dry					1
14	1					,					
15					GM						1
16	]	1 1				]		Ĭ	]		1
17	6*11*13	0.0	Х		ĺ	Caliche (cemented sand, CaCO3)		1			ĺ
18 19	}					small gravels					[
20	1	1 1						1		1	1
21	1					1					
22	18*17*11	0.0	Х			Caliche to 21'					
23		"]				at 21' tan sand/caliche nogules (moist)				ľ	
24	1	1 1						- 1			
25								i	[		
26						Air/Water Interface @ 26.5		ļ	1		Į
27	5*6*6	1	X			Brown, f.g. sand (saturated @ 27')		1	- 1		l
28 29	-					Caliche layer @ 35'					!
30	-	1 1					Static Water	Level	- 1		1
31	İ				CL		~26.5'	2010.			
32					0-		20.0		1	1944 - 1784 	1
33						Well Specifications -				3-4	İ
34	}					TD: 37.5'		1			\
35	]					0.010 Screened Interval	37-22"	1	ĺ		
36						Sand Interval 37-20'					
37						Bentonite Seal 20-18'		}	}		ļ
38						Grout 18' to surface					
39 40	-					1		j			
41	{					Į.			ł		
<del></del>	L	1 1			4	<u> </u>					



PROJECT PROJECT	NO.:	Jamar 1494-1.0				DATE: 5-25-004 LOGGED BY J.Bunch	Page 3	Of	6		
CLIENT N	AME:	OCD				SITE ELEV.: Monitor Well/Boring No.: 3	DRILLING GW DEPT		)D: ~27'	HAS	l
	r n	(mdd)	<u>o</u>	.ي		Total Weinboring No 3	OW DEFT	<u> </u>			
Depth	Blow count	PID (pp	Sample	Graphic	nscs	Geologic Descripton			We	ll Desig	gn
1 2					SM	at 2.5', brown loam					
3	1				O.W.	at 2.5, brown joann		-		ł	l
<u>4</u> 5	-	70ppm									
6	<u> </u>	1 1			GM						Ì
7 8	5 <b>*</b> 7 <b>*</b> 9	0.0	X			Buff, f.g. sand (moist)		ĺ			
9	1	]									
10 11	]							1			
12	8*14*22	0.0	×			  Buff f.g. sand (hard)					
13 14	]										
15					GМ						
16	0*4.0*00		v					:			
17 18	9*18 <b>*</b> 28	0.0	Х			Buff, f.g. sand/caliche (moist)					į
19	1	1 1						1			}
20 21	1										
22	22*22*30	0.0	X			Caliche, hard, dry					
23 24	1				GM						
25						Static Water	Level				
26 27	5*7 <b>*</b> 9	0.0	X			~27' Caliche to 26'					
28		0.0	^		CL	Reddish brown @ 26'					
29 30	]					f.g. sand (very moist)					
31	1				CL	air/water interface @ 27'			ł		
32	1							1			
33 34	ł					Well Specifications - TD: 37.5'			ļ		
35	1					0.010 Screened Interval	37-22'				
36 37	1					Sand Interval 37-20' Bentonite Seal 20-18'			ĺ		
38	j					Grout 18' to surface		-			
39 40									1		
40	L	LL			L	<u> </u>				3.0	



PROJECT PROJECT CLIENT NA	NO.:	Jamar 1494-1.0 OCD				DATE: 5-26-004 Page 4 Of LOGGED BY: J.Bunch SITE ELEV.: DRILLING METHO Monitor Well/Boring No.: 4 GW DEPTH:	6 DD: ~26.5'	HAS
Depth	Blow count	PID (ppm)	Sample	Graphic	SOSN	Geologic Descripton		ll Design
1 2 3 4					sм			
5 6 7 8 9	8*9*10	0.0	х		GM	Brown, sandy loamy silt w/organics Buff f.g. sand (dry)		
10 11 12 13	10*22*18	0.0	x			Light brown f.g. sand (dry) CaCO3 concentrations		
14 15 16 17 18 19	12*13*10	0.0	x		GM GC	Buff, sandy silt, small gravel Hard (caliche) dry		
20 21 22 23	10*20*28	0.0	x		CL	Buff, caliche (hard) dry		
24 25 26 27 28	<b>4*8*</b> 7	0.0	<b>X</b>		CL	Light brown silty sand moist to saturated @ 25.5' Air/Water interface @ 26.5'  Static Water Level ~26.5 ft		
29 30 31 32 33								
34 35 36 37 38 39 40					GM	Well Specifications - TD: 37.5' 0.010 Screened Interval 37-22' Sand Interval 37-20' Bentonite Seal 20-18'		
41 42						Grout 18' to surface		

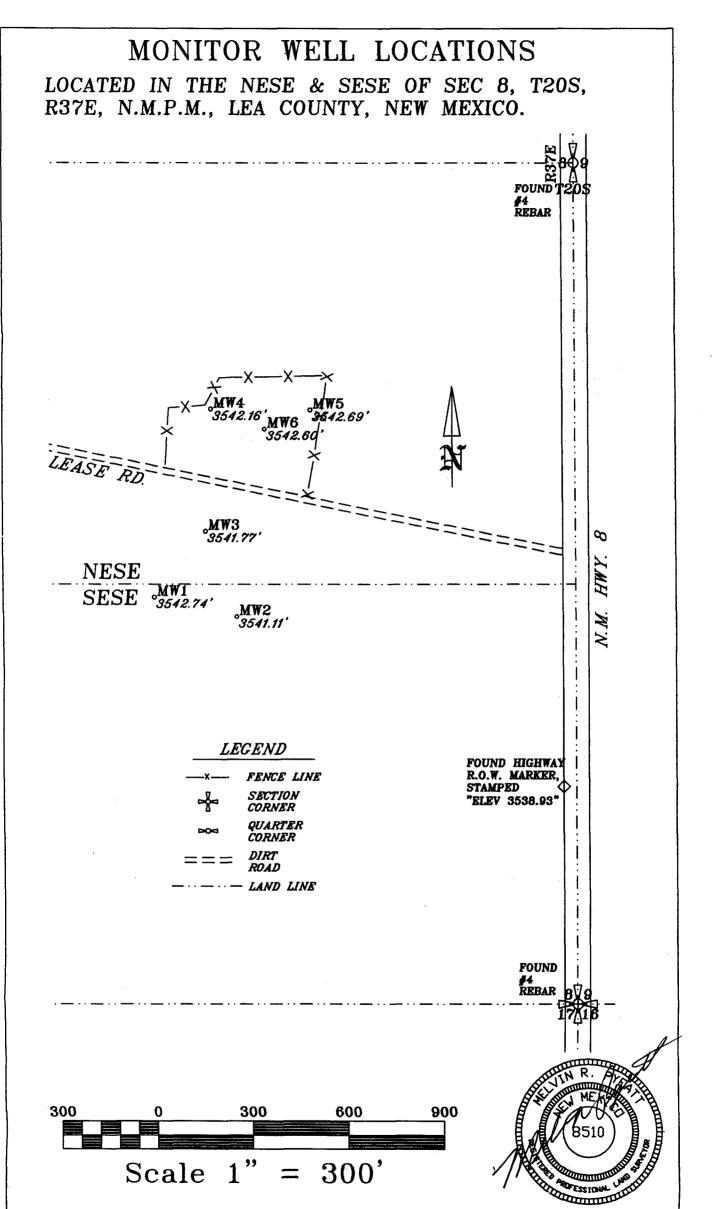


PROJECT		Jamar			······································	DATE: 5-26-004		Page	5 Of	6		<del></del>
PROJECT NO.:		1494-1.0				LOGGED BY: J.Bunch		DDW LWG METUOD				
CLIENT NAME:		OCD							IG METHOD: HAS			
<b></b>	<del></del>				<u> </u>	Monitor Well/Boring No.:	5	GW DE	21H:	~28.5'		
ء	Blow count	PID (ppm)	Sample	Graphic	ြတ					ļ		
Depth	ğ	<u>ā</u>	Ē	효	nscs	Geologic	Descripton			We	ell Des	ign
	<u>8</u>	I₽	Sa	Ö	jš					ł		_
		ш		ļ	ļ					<del> </del>	т	
2		1			1	Caliaba						<u> </u>
3				1 188		Caliche				-		
4					SM	Silty sand @ 2.5'				ł		
5					SIVI							
6		1		40	1							
7	5*6*7	0.0	x	Karati es		Tan/buff sandy, sitt (dry)						
8	30,	0.0	^	100	1	ranburt sandy, sik (dry)						
9		ļ			GM							:
10					-							
11										ł		
12	4*8*12	0.0	x			Tan f.g. sand, dry to moist	t					
13		1			j						]	
14		ŀ			ł							
15					GМ							
16					ļ							
17	50*5.5	0.0	Х			Buff/tan silty sand w/med-	Irg					
18		İ			GC	angular gravel				Ì		
19		ļ			ļ							
20		ł			CL					<b>)</b>	1 1	
21										ſ	İİ	
22	10*10*14	0.0	Х			Buff caliche - hard, dry				manna		muniin
23												
24 25		1										
26											2.5	
27	50*5	0.0	x			5" recovery		Static W	ator Leve	. [		
28	000	) 0.0	^		CL	Hard caliche - moist		~28.5 ft	CICI LEVE	4		
29	10*7*7	0.0	x		OL.	Reddish/brown @ 28.5'		~20.5 π				
30	10 , ,	0.0	^			f.g. sand - moist					di also il Visiglació	
31		Į.			l	g. ourid - moist						
32		1								1		
33					1							
34				<b>Y</b>	]							
35		}		<b>}</b> \$	GM					}		
36		1					Well Specific	cations -				
37							TD: 39.5'					
38		1				1	0.010 Scree		1 39-24			
39					1		Sand Interva					
40					1		Bentonite Se					
41					ļ		Grout 20' to	surface				
42					L	<u> </u>						



PROJECT NAME: PROJECT NO.: CLIENT NAME:		Jamar 1494-1.0 OCD				DATE:         5-26-004         Page 6 Of 6           LOGGED BY: J.Bunch         BITE ELEV.:         DRILLING METHOD:           Monitor Well/Boring No.:         6 GW DEPTH:         ~30'				
Depth	Blow count	PID (ppm)	Sample	Graphic	sosn	Geologic Descripton	We	ell Design		
1 2 3 4 5 6 7	<b>6*4*</b> 5	0.0	X		SM	Buff, sandy silt (moist)				
8 9 10 11 12 13	5*7*9	0.0	x		GM	Light brown, f.g. silty sand, moist				
15 16 17 18 19	10*11*13	0.0	x		GM GC CL	Tan/Buff sandy silt w/angular gravels (hard)				
21 22 23 24 25 26	18-50/5	0.0	X			Buff caliche - hard, dry  Reddish brown f.g. silty sand  Very moist				
27 28 29 30 31	7*18*16	0.0	X		CL	Air/Water interface @ 27'  Static Water Level ~27 ft				
33 34 35 36 37 38 39 40 41					GM	Well Specifications - TD: 37.5' 0.010 Screened Interval 37-22' Sand Interval 37-20' Bentonite Seal 20-18' Grout ?' to surface				

## APPENDIX H SURVEY RESULTS



6/29/2004