1R - 334

GENERAL CORRESPONDENCE

YEAR(S):

2001 → 2000

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

December 27, 2001

CERTIFIED MAIL
RETURN RECEIPT NO. 7000-1670-0012-5357-8109

Mr. Cal Wrangham
Dynegy Midstream Services, L.P.
6 Desta Dr., Suite 3300
Midland, Texas 79705

RE: CASE #1R0334
ELDRIDGE RANCH PIPELINE SPILL SITE
MONUMENT, NEW MEXICO

Dear Mr. Wrangham:

The New Mexico Oil Conservation Division (OCD) has reviewed Dynegy Midstream Services, L.P. (Dynegy) May 14, 2001 "PIPELINE ASSESSMENT REPORT, DYNEGY MIDSTREAM SERVICES, L.P., NW/4, SW/4, SECTION 21, TOWNSHIP 19 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO" which was submitted on behalf of Dynegy by their consultant Larson & Associates, Inc. This document contains the results of Dynegy's investigation of the extent of contamination from a pipeline spill adjacent to the Eldridge Ranch and located in Unit L of Section 21, Township 19 South, Range 37 East, Lea County, New Mexico. The document also requests approval to cover and close the site based upon the investigation results.

The above-referenced closure request is approved. Please be advised that OCD approval does not relieve Dynegy of responsibility if remaining contamination poses a future threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve Dynegy of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor

amec

Fax

To Bill Olson
Company OCD
Fax 505 476 3462
Charge no
File no
Fax operator
Subject Eldridge Revisions

From Bob Wilcox
Direct Tel (505) 821-1801
Fax (505) 821-7371
Pages 7 (inc. this page)
Date 12/19/01
cc

Bill,

Please note that I found a budget typo which boosted the total cost upward.

BW

AMEC Earth & Environmental, Inc
8519 Jefferson NE
Albuquerque, NM 87113
Tel (505) 821-1801
Fax (505) 821-7371

19 December 2001
AMEC Proposal No. PF01-1128
Rev. No. 2

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

Attention: Mr. Bill Olson

RE: SCOPE OF WORK
Phase II Monitoring Well Installation and Sampling
Eldridge Ranch, Lea County, New Mexico

AMEC Earth & Environmental, Inc. (AMEC) is pleased to present you with this cost estimate to provide Phase II Monitoring Well Installation and Ground Water Sampling Services in the vicinity of the Eldridge Ranch located in Lea County, New Mexico. Scope of services were detailed in Request for Proposal (RFP) provided to AMEC by the State of New Mexico Energy, Minerals and Natural Resources Department Oil - Conservation Division (NMOCD) dated 27 November, 2001.

This scope of work will follow the terms and conditions of AMEC's Site Maintenance and Monitoring Contract (PA No. 00-805-09-17658) awarded by the State of New Mexico, General Services Department. Where a specific item is warranted in the NMOCD scope of work and is not detailed in the GSA Contract, AMEC will use its most current Unit Fee Schedule. We assume that the NMOCD will obtain access from property owners for drilling and sampling during the project. AMEC will contact the NMOCD Project Manager within one week prior to beginning the project to inform interested parties of our drilling and sampling schedule.

All work performed at the site will conform with AMEC's Safety Policies and Procedures Manual. A site specific Health and Safety Plan (HASP) will be prepared prior to site mobilization. AMEC will contact New Mexico One Call to locate underground utilities prior to the initiation of drilling.

1. MONITOR WELL INSTALLATION

The scope of work will consist of drilling and installing seven (7) monitoring wells consisting of 2-inch diameter Schedule 40 PVC pipe to the depth of approximately ten (10) feet below the top of the water table using hollow stem auger. For the purposes of this proposal, and based on information from wells previously installed at the site by AMEC, we anticipate that the total depth of each well to be approximately 40 feet below ground surface (bgs). If actual conditions prove groundwater is shallower or deeper than expected, our costs will reflect actual time spent in the field at the listed unit rates. If costs are expected to exceed the total in the attached budget, AMEC will notify the NMOCD Project Manager prior to incurring those costs.

All down hole equipment will be steam-cleaned prior to use and between each hole. Soil samples will be collected from cuttings every five feet for logging formation descriptions by the AMEC field

geologist. The cuttings also will be field screened using a calibrated photo ionization detector (PID). For the purposes of this proposal, it is not anticipated that soil samples will be obtained for laboratory analysis. However, in the event that contaminated soils are encountered, the OCD Project Manager will be notified immediately. If hydrocarbon contaminated soils are encountered during drilling near a potential source area, split spoon samples will be obtained at 5-foot intervals during the drilling of the particular boring. If split-spoon sampling is necessary, the split spoons will be properly decontaminated between each use. If necessary, a minimum of one (1) sample from the highest PID reading and one (1) sample near the soil/groundwater interface will be submitted for laboratory analysis of total petroleum hydrocarbons (TPH), by EPA Method 8015 for full range hydrocarbons and benzene, toluene, ethylbenzene and xylene (BTEX) by EPA Method 8021. It is our understanding that the NMOCD will provide the necessary sampling supplies and laboratory analysis, if necessary, at no cost to AMEC.

The monitor wells will then be competed in the following manner:

- 10 feet of 0.010 PVC screen below the top of ground water level.
- 5 feet of 0.010 PVC screen above the top of ground water level.
- Sand pack from the bottom of the hole to 3 feet above the top of the well screen.
- 2 to 3 feet bentonite plug placed on top of gravel pack.
- Cement grout containing 3 to 5 % bentonite to surface.
- Concrete pad around well surface with locking three (3) foot riser.
- A lock will be secured on each well cover.

2. MONITOR WELL DEVELOPMENT AND GROUND WATER SAMPLING

After completion of the wells, they will be developed using a clean, stainless steel bailer to surge and purge the well until the amount of suspended solids have been reduced and pH, temperature, and conductivity have stabilized. The bailer will be properly decontaminated between developing each well. All development water will be placed in 55-gallon steel drums which will be sealed and labeled according to their contents.

The wells will be allowed to recharge for 24 hours, then at least three casing volumes will be purged and ground water samples collected with separate disposable bailers from each well after pH, temperature, and conductivity have stabilized. These samples will be sent for the NMOCD contract laboratory for analysis for BTEX, TPH, total dissolved solids (TDS), major cations/anions, and New Mexico Water Quality Control Commission (NMWQCC) metals. Any samples obtained during the project will be placed in containers supplied by the laboratory, chilled properly in a cooler, and sent overnight delivery to the laboratory using standard chain-of custody protocols.

3. SURVEYING

AMEC will subcontract a surveyor licensed in the State of New Mexico to determine the top of casing elevations for the installed monitor wells and ground elevations near each water well on the site. These elevations will assist in determining the groundwater gradient, flow direction, and identify possible contaminant source(s).

4. WASTE DISPOSAL

If regulated wastes such as contaminated soil or ground water are generated during the project, the media will be drummed in 55-gallon containers, sealed and properly labeled as to their contents. Following the receipt and review of laboratory analyses, if necessary, the drums/contaminated media will be disposed at an approved NMOCD-licensed facility near Hobbs. We request that NMOCD personnel sign applicable waste manifests.

5. REPORTING

AMEC will submit a report to the NMOCD summarizing the field activities and laboratory analyses. The report will include the following:

- A description of the investigation activities during the project including conclusions and recommendations;
- A geologic and lithologic log and well completion diagram for each monitor well;
- A water table map showing the location of the monitor wells, water wells, potential sources of contamination and other important site features. The magnitude and direction of the hydraulic gradient will be determined using the top of casing elevations from each well provided by a surveyor licensed in the State of New Mexico;
- Isopleth maps for contaminants detected during the investigation;
- Summary tables of all groundwater quality sampling results and copies of all laboratory analytical data sheets and associated QA/QC data;
- A disposition of all waste generated.

The report will be submitted to the NMOCD within 60 days of the initiation of drilling activities. We understand that our report will be possibly used for enforcement action purposes and will present defensible data in a professional format.

New Mexico Oil Conservation Division
Phase II Monitoring Well Installation and Sampling
Eldridge Ranch, Monument, New Mexico
AMEC Proposal No. PF01-1128
Revision No. 2
19 December 2001

It is anticipated that the field project will consist of 6 working days. We expect to be able to begin the project within two weeks of being given the notice to proceed. The costs are based on drilling and installing wells to a depth of 40 feet each. If unforeseen drilling conditions are encountered, costs for the project may increase. The NMOCD will be notified in the event this occurs. The cost estimate for the project is $26,053.04 including 5.8125% New Mexico Gross Receipts Tax. An estimated cost breakdown for the project is shown on the attachment and reflect the unit rates specified in our price agreement for environmental services with the State of New Mexico. Should you have any questions concerning this proposal, please contact our office.

Respectfully submitted,

AMEC Earth & Environmental, Inc.

Bob Wilcox

Bob Wilcox, P.G.
Senior Project Manager

Reviewed by:

Fred T. Schelby, P.E.
Engineering Manager

Copies: Addressee (2)

BW:rrg

AMEC Earth & Environmental, Inc.
8519 Jefferson, N.E.
Albuquerque, New Mexico 87113
Telephone: 505/821-1801
Fax: 505/821-7371
www.amec.com

New Mexico Oil Conservation Division
Phase II Monitoring Well Installation and Sampling
Eldridge Ranch, Monument, New Mexico
AMEC Proposal No. PF01-1128
Revision No. 2
19 December 2001

Budget Estimate - PF01-1128, Revision No. 2
New Mexico Oil Conservation Division
Phase II Monitoring Well and Ground Water Sampling
Eldridge Ranch, Monument, New Mexico

AMEC Mobilization/Demobilization/ Project Preparation	
8 hours Senior Scientist @ $75/hour	$ 600.00
16 hours Staff Scientist @ $57/hour	$ 912.00
Pickup Truck 6 days @ $50/day	$ 300.00
1000 miles @ $.25/mile	$ 250.00
1 man days per diem @ $60/day	$ 60.00
Subtotal	**$ 2,122.00**
Drilling Rig Mobilization/Demobilization	
4 hours Drilling Rig Preparation @ $100/hour	$ 400.00
2 man days per diem @ $60/day	$ 120.00
Pickup Truck 6 days @ $50/day	$ 300.00
Pickup Truck 1000 miles @ $0.25/mile	$ 250.00
Drilling Rig 720 miles @ $0.75/mile	$ 540.00
Subtotal	**$ 1,610.00**
Drilling and Monitor Well Installation	
Enviroworks -Drilling Contractor	
Hollow stem auger drilling and well completion	
Drilling 280 feet @ $20.00/foot (7-40 ft wells)	$ 5,600.00
10' sections - 2 inch 0.010 PVC screen, 7 @ $24.00/10 ft	$ 168.00
10' sections - Blank 2 inch PVC riser, 14 @ $15.50/10 ft	$ 217.00
Sand pack, 50 @ $6.60/50lb	$ 330.00
Bentonite chips, 7 @ $6.60/100lb	$ 46.20
10 man days per diem @ $60/day (Drill Crew)	$ 600.00
5 days steam cleaner @ $90/day	$ 450.00
7 hours Installation of well cover @ $100/hour	$ 700.00
Drilling Contractor Line Items not Covered in Price Agreement	
5' sections - 2 inch 0.010 PVC screen, 7 @ $30.00/5 ft	$ 210.00
5' sections - 2 inch 0.010 PVC blank, 7 @ $9.00/5 ft	$ 63.00
3' Stickup Manhole Well Cover, 7 @ $75.00/ea	$ 525.00
Grout wells in place - 147 feet @ $3.00 foot	$ 441.00
(73.5 bags of cement @ $6.00 bag)	

New Mexico Oil Conservation Division
Phase II Monitoring Well Installation and Sampling
Eldridge Ranch, Monument, New Mexico
AMEC Proposal No. PF01-1128
Revision No. 2
19 December 2001

Locking jay plug - 7 @ $16.00/ea	$ 112.00
End caps flush threaded - 7 @ $8.00/ea	$ 56.00
Well cap locks - 7 @ $8.10/ea	$ 56.70
AMEC	
40 hours Staff Scientist @ $57/hour	$ 2,280.00
PID 4 day @ $5.00/day	$ 20.00
3 man days per diem @ $60/day (AMEC)	$ 180.00
Drilling Subtotal	**$ 12,054.90**
Well Development/Ground Water Sampling	
Drill Rig 7 hours @ $100.00/hour (develop wells)	$ 700.00
20 hours Staff Scientist @ $57/hour	$ 1,140.00
Interface Probe 4 days @ $5.00/day	$ 20.00
pH/Temp/Conductivity Meter 2 days @ $5.00/day	$ 10.00
2 man day per diem @ $60/day (AMEC)	$ 120.00
Subtotal	**$ 1,990.00**
Survey by Licensed Surveyor	
Survey Crew, 23 man hours @ $57/hour	$ 1,311.00
Waste Disposal	
10 drums @ $115/drum	$ 1,150.00
Subtotal	**$ 2,461.00**
HASP Preparation/Project Management/Reporting	
40 hours Senior Scientist @ $75/hour	$ 3,000.00
10 hours Staff Scientist @ $57/hour	$ 570.00
6 hours Clerical @ $29/hour	$ 174.00
16 hours Drafting @ $40/hour	$ 640.00
Subtotal	**$ 4,384.00**
Estimated Project Total	**$24,621.90**
Estimated Project Total (Including 5.8125% NMGRT)	**$26,053.04**

At this time, it is not known if regulated wastes will be generated during the project. All development water and any contaminated soils will be drummed. Following review of the laboratory results, if necessary, the media will be transported to an approved NMOCD-licensed facility near Hobbs.

State of New Mexico
Energy, Minerals and Natural Resources Department
02 Budget Fiscal Year
Purchase/Commitment Review Form

12/13/2001
09:23:02

Vendor Name and Address: AMEC EARTH & ENVIRONMENTAL INC
8519 JEFFERSON NE
ALBUQUERQUE, NM 87113

AM0168 Doc Type C Control Number 104280

Input by: MANAYA 12/13/2001

Reviewed LW

Vendor TIN [redacted] Vendor Type C CRS Cert Sent / /

Contact Mary Anaya
505/476-3445

Desc Phase II Investigation

Ship to
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.

SANTA FE, NM 87505

Invoice to
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.

SANTA FE, NM 87505

Contract: 00-805-09-17658 Expires: 08/31/2002

DFA Line Number	Object	LGFS-Org	Amount	Enc Nbr
01	3522	0750	25,088.46	
		Total	25,088.46	

Item	Qty	Unit	Article and Description	Unit Price	Amount
1			Encumber funds for Phase II Eldridge Ranch Investigation	25,088.4600	25,088.46
				Total	25,088.46

6 December 2001
AMEC Proposal No. PF01-1128

Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Attention: Mr. Bill Olson

RE: Scope of Work
Phase II Monitoring Well Installation and Sampling
Eldridge Ranch, Lea County, New Mexico

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All down hole equipment will be steam-cleaned prior to use and between each hole. The AMEC field geologist will collect soil samples from cuttings every five feet to log formation descriptions. The cuttings also will be field screened using a calibrated photo ionization detector (PID). For

the purposes of this proposal, it is not anticipated that soil samples will be obtained for laboratory analysis. However, in the event that contaminated soils are encountered, the OCD Project Manager will be notified immediately. If hydrocarbon contaminated soils are encountered during drilling near a potential source area, split spoon samples will be obtained at 5-foot intervals during the drilling of the particular boring. If split-spoon sampling is necessary, the split spoons will be properly decontaminated between each use. If necessary, a minimum of one (1) sample from the highest PID reading and one (1) sample near the soil/groundwater interface will be submitted for laboratory analysis of total petroleum hydrocarbons (TPH), by EPA Method 8015 for full range hydrocarbons and benzene, toluene, ethylbenzene and xylene (BTEX) by EPA Method 8021. It is our understanding that the NMOCD will provide the necessary sampling supplies and laboratory analysis, if necessary, at no cost to AMEC.

The monitor wells will then be competed in the following manner:

- 10 feet of 0.010 PVC screen below the top of ground water level.
- 5 feet of 0.010 PVC screen above the top of ground water level.
- Sand pack from the bottom of the hole to 3 feet above the top of the well screen.
- 2 to 3 feet bentonite plug placed on top of gravel pack.
- Cement grout containing 3 to 5 % bentonite to surface.
- Concrete pad around well surface with locking three (3) foot riser.
- A lock will be secured on each well cover.

MONITOR WELL DEVELOPMENT AND GROUND WATER SAMPLING

After completion of the wells, they will be developed using a clean, stainless steel bailer to surge and purge the well until the amount of suspended solids have been reduced and pH, temperature, and conductivity have stabilized. The bailer will be properly decontaminated between developing each well. All development water will be placed in 55-gallon steel drums which will be sealed and labeled according to their contents.

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SURVEYING

AMEC will subcontract a surveyor licensed in the State of New Mexico to determine the top of casing elevations for the installed monitor wells and ground elevations near each water well on the site. These elevations will assist in determining the groundwater gradient, flow direction, and identify possible contaminant source(s).

WASTE DISPOSAL

If regulated wastes such as contaminated soil or ground water are generated during the project, the media will be drummed in 55-gallon containers, sealed and properly labeled as to their contents. Following the receipt and review of laboratory analyses, if necessary, the drums/contaminated media will be disposed at an approved NMOCD-licensed facility near Hobbs. We request that NMOCD personnel sign applicable waste manifests.

REPORTING

AMEC will submit a report to the NMOCD summarizing the field activities and laboratory analyses. The report will include the following:

- A description of the investigation activities during the project including conclusions and recommendations;
- A geologic and lithologic log and well completion diagram for each monitor well;
- A water table map showing the location of the monitor wells, water wells, potential sources of contamination and other important site features. The magnitude and direction of the hydraulic gradient will be determined using the top of casing elevations from each well provided by a surveyor licensed in the State of New Mexico;
- Isopleth maps for contaminants detected during the investigation;
- Summary tables of all groundwater quality sampling results and copies of all laboratory analytical data sheets and associated QA/QC data;
- A disposition of all waste generated.

The report will be submitted to the NMOCD within 60 days of the initiation of drilling activities. We understand that our report will be possibly used for enforcement action purposes and will present defensible data in a professional format.

It is anticipated that the field project will consist of 6 working days. We expect to be able to begin the project within two weeks of being given the notice to proceed. The costs are based on drilling and installing wells to a depth of 40 feet each. If unforeseen drilling conditions are encountered, costs for the project may increase. The NMOCD will be notified in the event this

occurs. The cost estimate for the project is $25,419.34 including 5.8125% New Mexico Gross Receipts Tax. An estimated cost breakdown for the project is shown on the attachment and reflects the unit rates specified in our price agreement for environmental services with the State of New Mexico. Should you have any questions concerning this proposal, please me.

Respectfully submitted,

AMEC Earth & Environmental, Inc.

Bob Wilcox, P.G.
Senior Project Manager

Reviewed by:

Fred T. Schelby, P.E.
Engineering Manager

Copies: Addressee (2)

BW:rrg

AMEC Earth & Environmental, Inc.
8519 Jefferson, N.E.
Albuquerque, New Mexico 87113
Telephone: 505/821-1801
Fax: 505/821-7371
www.amec.com

New Mexico Oil Conservation Division
Phase II Monitoring Well Installation and Sampling
Eldridge Ranch, Monument, New Mexico
AMEC Proposal No. PF01-1128
6 December 2001

Budget Estimate - PF01-1128
New Mexico Oil Conservation Division
Phase II Monitoring Well and Ground Water Sampling
Eldridge Ranch, Monument, New Mexico

AMEC Mobilization/Demobilization/ Project Preparation	
8 hours Project Manager @ $75/hour	$ 750.00
16 hours Staff Scientist @ $57/hour	$ 912.00
Pickup Truck 6 days @ $50/day	$ 300.00
1000 miles @ $.25/mile	$ 250.00
1 man days per diem @ $60/day	$ 60.00
Subtotal	**$ 1,272.00**
Drilling Rig Mobilization/Demobilization	
4 hours Drilling Rig Preparation @ $100/hour	$ 400.00
2 man days per diem @ $60/day	$ 120.00
Pickup Truck 6 days @ $50/day	$ 300.00
Pickup Truck 1000 miles @ $0.25/mile	$ 250.00
Drilling Rig 720 miles @ $0.75/mile	$ 540.00
Subtotal	**$ 1,610.00**
Drilling and Monitor Well Installation	
Enviroworks -Drilling Contractor	
Hollow stem auger drilling and well completion	
Drilling 245 feet @ $20.00/foot (7-40 ft wells)	$ 5,600.00
10' sections - 2 inch 0.010 PVC screen, 7 @ $24.00/10 ft	$ 168.00
10' sections - Blank 2 inch PVC riser, 14 @ $15.50/10 ft	$ 217.00
Sand pack, 50 @ $6.60/50lb	$ 330.00
Bentonite chips, 7 @ $6.60/50lb	$ 46.20
10 man days per diem @ $60/day (Drill Crew)	$ 600.00
5 days steam cleaner @ $90/day	$ 450.00
Drilling Contractor Line Items not covered in Price Agreement	
5' sections - 2 inch 0.010 PVC screen, 7 @ $30.00/5 ft	$ 210.00
3' Stickup Manhole Well Cover, 7 @ $75.00/ea	$ 525.00
Grout wells in place - 147 feet @ $3.00 foot	$ 441.00
(73.5 bags of cement @ $6.00/ea)	
Locking jay plug - 7 @ $16.00/ea	$ 112.00
End caps flush threaded - 7 @ $8.00/ea	$ 56.00
Well cap locks - 7 @ $53.00/ea	$ 371.00
7 hours Installation of well cover @ $100/hour	$ 700.00
AMEC	
40 hours Staff Scientist @ $57/hour	$ 2,280.00
PID 4 day @ $5.00/day	$ 20.00
3 man days per diem @ $60/day (AMEC)	$ 180.00
Drilling Subtotal	**$ 12,306.20**

New Mexico Oil Conservation Division
Phase II Monitoring Well Installation and Sampling
Eldridge Ranch, Monument, New Mexico
AMEC Proposal No. PF01-1128
6 December 2001

Well Development/Ground Water Sampling		
Drill Rig 7 hours @ $100.00/hour (develop wells)		$ 700.00
20 hours Staff Scientist @ $57/hour		$ 1,140.00
Interface Probe 4 days @ $5.00/day		$ 20.00
pH/Temp/Conductivity Meter 2 days @ $5.00/day		$ 10.00
2 man day per diem @ $60/day (AMEC)		$ 120.00
	Subtotal	**$ 1,990.00**
Survey by Licensed Surveyor		
Survey Crew, 23 man hours @ $57/hour		$ 1,311.00
Waste Disposal		
10 drums @ $115/drum		$ 1,150.00
	Subtotal	**$ 2,461.00**
HASP Preparation/Project Management/Reporting		
40 hours Senior Scientist @ $75/hour		$ 3,000.00
10 hours Staff Scientist @ $57/hour		$ 570.00
6 hours Clerical @ $29/hour		$ 174.00
16 hours Drafting @ $40/hour		$ 640.00
	Subtotal	**$ 4,384.00**
	Estimated Project Total	**$24,023.20**
	Estimated Project Total (including 5.8125% NMGRT)	**$25,419.34**

At this time, it is not known if regulated wastes will be generated during the project. All development water and any contaminated soils will be drummed. Following review of the laboratory results, if necessary, the media will be transported to an approved NMOCD-licensed facility near Hobbs.

Olson, William

From: Olson, William
Sent: Tuesday, November 27, 2001 12:58 PM
To: Bob Wilcox - AMEC (E-mail)
Cc: Anderson, Roger; Ross, Stephen
Subject: Eldridge Ranch Investigations

Attached is a scope of work for the 2nd round of investigations to determine the source of petroleum contamination at the Eldridge Ranch. The work will be carried out under the Highway Department contract. Please provide me with a cost estimate for this work. If you have any questions, please E-mail me or call me.

Sincerely,

William C. Olson
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87505
E-mail: wolson@state.nm.us
(505)476-3491

SCOPE2.DOC

SCOPE OF WORK

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

NEW MEXICO OIL CONSERVATION DIVISION

INVESTIGATION OF GROUND WATER CONTAMINATION
OF
ELDRIDGE RANCH WATER WELLS

NOVEMBER 27, 2001

I. INTRODUCTION

A. PURPOSE

The State of New Mexico's Oil Conservation Division of the Energy, Minerals and Natural Resources Department (NMOCD) is continuing an investigation to determine the source of petroleum contamination of ground water of private water wells on the Eldridge Ranch north of Monument, New Mexico.

B. SUMMARY SCOPE OF WORK

The contractor shall perform the work necessary to determine the source of ground water contamination of the Eldridge Ranch water wells in accordance with the rules of the NMOCD. The scope of work includes, but is not limited to:

1. installation of ground water monitoring wells;
2. surveying monitor well locations, water wells and relevant site features
3. sampling ground water from monitor wells
4. removal and disposal of investigation derived wastes in a manner approved by the NMOCD;
5. preparation of an investigation report.

C. PROCUREMENT MANAGER

NMOCD has designated a Procurement Manager who is responsible for the conduct of this procurement whose name, address and telephone number are listed below.

William C. Olson
New Mexico Oil Conservation Division
1220 Saint Francis Drive
Santa Fe, New Mexico 87505
Phone: 505-476-3491
Fax: 505-476-3462

All deliveries via express carrier should be addressed as above. Any inquiries or requests regarding this procurement should be submitted to the Procurement Manager in writing. Other state employees do not have the authority to respond on behalf of the Agency.

D. BACKGROUND INFORMATION

In September of 2000, the NMOCD was notified that an irrigation well and a separate household drinking water well on the property of Frank and Shelly Eldridge were contaminated with petroleum contaminants. The Eldridge Ranch is located in the SW/4 SE/4 of Section 21, Township 19 South, Range 37 East, Lea County, New Mexico. Subsequent site inspections have shown that the water wells are downgradient of a number of oilfield pipelines and oil and gas production sites. Samples taken from the irrigation well contain 6.08 mg/l benzene, 5.32 mg/l toluene, 0.157 mg/l ethylbenzene and 0.675 mg/l xylene (BTEX). An oily sheen was also observed on the surface of water purged from the irrigation well prior to sampling. Samples taken from the household drinking well contain 3.14 mg/l of benzene.

In August of 2001 the OCD had 7 ground water monitoring wells installed at the site. Depth to ground water varied from approximately 15 to 25 feet. The local ground water gradient was determined to be toward the south. Ground water sampling results showed that the petroleum contamination of the ground water appears to be further upgradient from the existing monitor well network. Additional investigation of the source of these contaminants is necessary to determine the party responsible for remediation of the site.

II. TECHNICAL SPECIFICATIONS

The contractor shall:

1. Install up to seven (7) forty foot deep 2-inch ground water monitoring wells between the Eldridge Ranch monitor well network and upgradient potential sources of contamination.

2. Log the lithology and volatile organic vapor concentrations with depth during the drilling of each monitor well.

3. Complete the ground water monitor wells as follows:

    a. At least 15 feet of well screen shall be placed across the water table interface with 5 feet of the well screen above the water table and 10 feet of the well screen below the water table.

    b. An appropriately sized gravel pack shall be set in the annulus around the

well screen from the bottom of the hole to 2-3 feet above the top of the well screen.

c. A 2-3 foot bentonite plug shall be placed above the gravel pack.

d. The remainder of the hole shall be grouted to the surface with cement containing 3-5% bentonite.

e. A concrete pad and locking well cover shall be placed around the well at the surface.

f. The well shall be developed after construction using EPA approved procedures.

4. Sample ground water from all site monitor wells no less than 24 hours after the well is developed. The ground water from each monitor well must be purged, sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene, total petroleum hydrocarbons (TPH), total dissolved solids (TDS), major cations/anions and New Mexico Water Quality Control Commission (WQCC) metals using EPA approved methods and quality assurance/quality control (QA/QC) procedures.

5. Survey the locations of the new monitor wells, water wells, potential sources of contamination and any other pertinent site features.

6. Remove and recycle or dispose of investigation derived wastes at an NMOCD-approved waste management facility.

7. Prepare and deliver to NMOCD an investigation report that contains:

a. A description of the investigation activities which occurred including conclusions and recommendations.

b. A geologic/lithologic log and well completion diagram for each monitor well.

c. A water table map showing the location of the monitor wells, water wells, potential sources of contamination and any other pertinent site features as well as the direction and magnitude of the hydraulic gradient created using the water table elevation from each monitor well.

d. Isopleth maps for contaminants observed during the investigations.

e. Summary tables of all ground water quality sampling results and copies of

all laboratory analytical data sheets and associated QA/QC data.

f. The disposition of all wastes generated.

III. SCHEDULE

A. INITIATION OF WORK

Due to the public impacts at the site, drilling shall be scheduled to commence as soon as possible.

B. REPORT SUBMISSION

A report on the investigations shall be submitted to the NMOCD within 60 days of initiation of drilling.

12/7/01
ok to pay SCR 12/11/01

amec

19 November, 2001

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

RECEIVED
NOV 19 2001
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Attention: Mr. Bill Olson

RE: BUDGET INCREASE JUSTIFICATION
MONITORING WELL INSTALLATION AND SAMPLING
ELDRIDGE RANCH, LEA COUNTY, NEW MEXICO

AMEC Earth and Environmental (AMEC) has completed the initial investigation and reporting for the monitor well installation and sampling at the Eldridge Ranch Site near Monument in Lea County, New Mexico. With applicable New Mexico Gross Receipts Tax, the authorized budget approved by the Oil Conservation Division (OCD) for the project was $17,935.43. As specified in our proposal, the costs provided to the OCD were an estimate based on the original scope of work. Following delays in beginning the project and an increase in the number of monitoring wells installed, the actual total cost for the project was $19,528.62. This is an increase of $1,5935.43. The OCD was verbally informed that a cost increase was required following the completion of the field program.

The additional costs are due to a change in the original scope of services and are listed below:

- Bob Wilcox made an additional trip to the Eldridge Ranch to site the wells with Bill Olson of the OCD. The costs include additional mileage for the trip to the site.
- Two additional wells were drilled on the adjacent property. Additional time was required by the geologist, Mark Strzelczyk, for well installation and ground water sampling of the additional wells.
- Surveyor costs were higher since the original cost estimate was for surveying five wells. Seven wells were surveyed for top of casing and ground surface elevations.

AMEC appreciates the opportunity to be of service to the OCD for this project. Should you have any questions, please contact me at (505) 821-1801.

Respectfully submitted,
AMEC Earth & Environmental, Inc.

Bob Wilcox

Bob Wilcox, P.G.
Senior Project Manager

AMEC Earth & Environmental, Inc.
8519 Jefferson, N.E.
Albuquerque, New Mexico 87113
Telephone: 505/821-1801
Fax: 505/821-7371
www.amec.com

amec

INVOICE

AMEC Earth & Environmental, Inc.
P.O. Box 24445
Seattle, Washington 98124-0445

518307

NOV-19-2001
Page Number 1

State of New Mexico
Oil Conservation Division
1220 South St Francis Drive
Santa Fe NM 87505

ATTENTION: Mary Anaya

Professional Services Through OCT-27-2001

Project 1-517-000035 Eldridge Ranch Enviro Investigation

P.O. #SPD 00-805-09-17658
Doc. #01-311-006443
Project Manager: William C. Olson

LABOR		2,362.50
OTHER EXPENSES		1,344.05
	CURRENT BILLING	3,706.55
	NMGRT @ 5.8125 %	215.44
	AMOUNT DUE THIS INVOICE	3,921.99

TOTAL CONTRACT	20,374.99
PRIOR BILLINGS	15,822.07
CURRENT INVOICE	3,706.55
TOTAL REMAINING	846.37

Project Manager: Wilcox, Robert E.

Terms Net thirty (30) days. After thirty (30) days from invoice date a late charge of one and one-half percent (1½%) per month, or the maximum rate allowed by law may be charged.

Direct all billing inquiries to your AMEC Earth & Environmental, Inc. Project Manager.
Please visit our website at http://www.amecee.com

Federal Tax # [redacted]

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INVOICE

AMEC Earth & Environmental, Inc.
P.O. Box 24445
Seattle, Washington 98124-0445

518307

NOV-19-2001
Page Number 2

LABOR

		HOURS	RATE	AMOUNT
Project Manager				
Schelby, Frederick T	09/24/01 - 09/28/01	6.00		
Schelby, Frederick T	10/01/01 - 10/05/01	2.00		
	***	8.00	75.00	600.00
Wilcox, Robert E.	09/03/01 - 09/07/01	8.00		
	***	8.00	75.00	600.00
Staff Scientist Analysis				
Strzelczyk, Bogdan M	08/13/01 - 08/17/01	10.00		
	***	10.00	57.00	570.00
CADD Draftsperson				
Trujillo, Robert J.	08/13/01 - 08/17/01	1.00		
Trujillo, Robert J.	08/27/01 - 08/31/01	5.00		
Trujillo, Robert J.	09/03/01 - 09/07/01	7.00		
	***	13.00	40.00	520.00
Word Processor				
Gallo, Rosanne	10/01/01 - 10/05/01	2.50		
	***	2.50	29.00	72.50
		41.50		2,362.50

EXPENSES

		QTY	RATE	AMOUNT
Unit Charges				
Unit Pricing				
4 Gas Meter		4.00 Day (s)		
J1115H	08/06/01 - 08/09/01			
	***	4.00	5.0000	20.00
Interface Probe		2.00 Day (s)		
H1030C	08/05/01 - 08/09/01			
	***	2.00	5.0000	10.00

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INVOICE

AMEC Earth & Environmental, Inc.
P.O. Box 24445
Seattle, Washington 98124-0445

518307

NOV-19-2001
Page Number 3

		QTY	RATE	AMOUNT
Unit Charges				
Unit Pricing				
MSA/PID		4.00 Day (s)		
J1115H	08/06/01 - 08/09/01			
	***	4.00	5.0000	20.00
Water Quality Meter, Combined		2.00 Day (s)		
H1030C	08/08/01 - 08/09/01			
	***	2.00	5.0000	10.00
Subcontractor				
Basin surveyS				
018188	08/16/01			
21.1 Man Hrs @ $57.00 Plus Tax				
Survey Monitor Wells				
	***			1,284.05
				1,344.05
	** Total Project	1-517-000035		3,706.55

Terms: Net thirty (30) days. After thirty (30) days from invoice date a late charge of one and one-half percent (1½%) per month, or the maximum rate allowed by law may be charged

Direct all billing inquiries to your AMEC Earth & Environmental, Inc Project Manager.
Please visit our website at http://www.amecee.com

Federal Tax #[redacted]

amec

Fax

To Bill Olson
Company OCD
Fax 505 476-3462
Charge no
File no
Fax operator
Subject Eldridge Ranch Invoices

From Bob Wilcox
Direct Tel (505) 821-1801
Fax (505) 821-7371
Pages 9 (inc. this page)
Date 19 November 2001
cc

Hi Bill,

Per our conversation. Please review and hopefully we can get these through and paid quickly. Thanks,

Bob

AMEC Earth & Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel (505) 821-1801
Fax (505) 821-7371

19 November, 2001

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

Attention: Mr. Bill Olson

RE: BUDGET INCREASE JUSTIFICATION
MONITORING WELL INSTALLATION AND SAMPLING
ELDRIDGE RANCH, LEA COUNTY, NEW MEXICO

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The additional costs are due to a change in the original scope of services and are listed below:

- Bob Wilcox made an additional trip to the Eldridge Ranch to site the wells with Bill Olson of the OCD. The costs include additional mileage for the trip to the site.
- Two additional wells were drilled on the adjacent property. Additional time was required by the geologist, Mark Strzelczyk, for well installation and ground water sampling of the additional wells.
- Surveyor costs were higher since the original cost estimate was for surveying five wells. Seven wells were surveyed for top of casing and ground surface elevations.

AMEC appreciates the opportunity to be of service to the OCD for this project. Should you have any questions, please contact me at (505) 821-1801.

Respectfully submitted,
AMEC Earth & Environmental, Inc.

Bob Wilcox

Bob Wilcox, P.G.
Senior Project Manager

AMEC Earth & Environmental, Inc.
8519 Jefferson, N.E.
Albuquerque, New Mexico 87113
Telephone: 505/821-1801
Fax: 505/821-7371
www.amec.com

12/7/01
OK to Pay SCR 12/11/01

amec

AMEC Earth & Environmental, Inc.
P.O. Box 24445
Seattle, Washington 98124-0445

INVOICE 518292

OCT-24-2001
Page Number 1
Revised 11/15/01

State of New Mexico
Oil Conservation Division
1220 South St Francis Drive
Santa Fe NM 87505

ATTENTION: Mary Anaya

Professional Services Through SEP-29-2001

Project 1-517-000035 Eldridge Ranch Enviro Investigation

P.O. #SPD 00-805-09-17658
Doc. #01-311-006443
Project Manager: William C. Olson

LABOR	4,822.00
OTHER EXPENSES	9,740.05
CURRENT BILLING	14,562.05
NMGRT @ 5.8125 %	846.42
AMOUNT DUE THIS INVOICE	15,408.47

TOTAL CONTRACT	20,374.99
PRIOR BILLINGS	1,260.02
CURRENT INVOICE	14,562.05
TOTAL REMAINING	4,552.92

Project Manager: Wilcox, Robert E.

amec

INVOICE 518292

AMEC Earth & Environmental, Inc.
PO Box 24445
Seattle, Washington 98124-0445

OCT-24-2001
Page Number 2
Revised 11/15/01

LABOR

		HOURS	RATE	AMOUNT
Project Manager				
Wilcox, Robert E.	07/16/01 - 07/20/01	2.00		
Wilcox, Robert E.	07/30/01 - 08/03/01	2.00		
Wilcox, Robert E.	08/06/01 - 08/10/01	5.00		
	***	9.00	75.00	675.00
Staff Scientist Field Work				
Strzelczyk, Bogdan M	07/30/01 - 08/03/01	5.50		
Strzelczyk, Bogdan M	08/06/01 - 08/10/01	67.00		
	***	72.50	57.00	4,132.50
Word Processor				
Trujillo, Robert J.	07/30/01 - 08/03/01	.50		
	***	.50	29.00	14.50
		82.00		4,822.00

EXPENSES

	QTY	RATE	AMOUNT
Unit Charges			
Unit Pricing			
Mileage, Vehicle	835.00 Mile (s)		
HG817A 08/10/01			
B Strzelczyk			
Albuquerque to Hobbs, Travel			
from Hobbs to Monument			
***	835.00	.2500	208.75
Per Diem	5.00 Day (s)		
HG821E 08/06/01 - 08/10/01			
B Strzelczyk			
Per Diem in Hobbs, NM			
***	5.00	60.0000	300.00

Terms. Net thirty (30) days After thirty (30) days from invoice date a late charge of one and one-half percent (1½%) per month, or the maximum rate allowed by law may be charged

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Please visit our website at http://www.amecee.com

Federal Tax #[redacted]

amec

INVOICE 518292

AMEC Earth & Environmental, Inc
P.O. Box 24445
Seattle, Washington 98124-0445

OCT-24-2001
Page Number 3
Revised 11/15/01

		QTY		RATE	AMOUNT
Unit Charges					
Unit Pricing					
Printing (black/white)		505.00	Page		
R1002G 09/28/01					
	***	505.00		.0500	25.25
Printing - Color		60.00	Page		
R1002G 09/28/01					
	***	60.00		1.0000	60.00
Subcontractor					
EnviroWorks LLC					
000258 09/06/01					
	***				9,146.05
					7,740.05
	** Total Project	1-517-000035			15,408.47

EnviroWorks, LLC
P.O. Box 7940
Albuquerque, NM 87194-7940
Office and Fax: 505/765-5887

Invoice

DATE	INVOICE NO.
9/6/2001	258

BILL TO

AMEC
8519 Jefferson N.E.
Albuquerque, NM 87113

P.O. NO.	TERMS	CO REP	PROJECT/JOB
	Net 30	BD	Eldridge Ranch

DESCRIPTION	COMPLETED	QTY	RATE	AMOUNT
Prepare for drilling and mob	8/6/2001		300.00	300.00T
Mob and demob - Eldridge Ranch			540.00	540.00T
Drilled 6 - 28' borings		168	20.00	3,360.00T
Drilled 1 - 34' boring		34	20.00	680.00T
10' Blank well casing 2" flush thread		11	15.00	165.00T
10' .010 slot screen 2" flush thread		7	22.25	155.75T
5' .010 slot screen 2" flush thread		7	30.00	210.00T
60lb bags of silica sand 10-20		41	6.60	270.60T
60lb bag bentonite chips		7	8.10	56.70T
Grout wells in place		62	3.00	186.00T
Installation of Well cover		7	100.00	700.00T
Locking jay plug		7	16.00	112.00T
End caps flush thread		7	8.00	56.00T
Develop well with wire line - 2hours		2	100.00	200.00T
Per diem - 2 man crew	8/11/2001	6	120.00	720.00T
Line Items Not Covered - Stick up Well Covers		7	75.00	525.00T
Locks for well covers		7	53.00	371.00T
Sales Tax			6.25%	538.00

1.5% charged monthly on invoices 15 days past due;
EIN #85-0460740 & NM CRS #02-397513-00-0

Total $9,146.05

amec

Fax

To Bill Olson
Company OCD
Fax 505 476-3462
Charge no
File no
Fax operator
Subject Non line item receipts

From Bob Wilcox
Direct Tel (505) 821-1801
Fax (505) 821-7371
Pages 4 (inc. this page)
Date 12/5/01
cc

Bill,

Here are Enviroworks receipts you requested.

Bw

AMEC Earth & Environmental, Inc.
8519 Jefferson NE
Albuquerque, NM 87113
Tel (505) 821-1801
Fax (505) 821-7371

RECEIPT

Date: 8/3/01
No: EW003
From: Redi-2-Mix

Quantity	Item	Amount
31	94# Zia Portland $6.00ea	$186.00
	(Grout wells in place 62' @$3.00)	

By: _____
Nugget S. Grossetete

EnviroWorks, LLC
P.O. Box 7940, Albuquerque, NM 87194 Voice & Fax: 505/765-5887
e-mail: envirowork@newmexico.com N. Sean Grossetete License #81818

RECEIPT

Date: 8/6/01
No: EW002
From: EnviroWorks, LLC

Quantity	Item	Amount
7 hrs	Installation of well covers $100.00/hr	$700.00
7 hrs	Develop wells with drill rig $100.00/hr	$700.00

By: _____
Nugget S. Grossetete

EnviroWorks, LLC
P.O. Box 7940, Albuquerque, NM 87194 Voice & Fax: 505/765-5887
e-mail: envirowork@newmexico.com N. Sean Grossetete License #81818

RECEIPT

Date: 8/6/01
No: EW001
From: Albuqerque Pipe & Pump Co.

Quantity	Item	Amount
7	5' sections – 2" 0.010 PVC screen $30.00ea	$210.00
7	Locking jay plug $16.00ea	$112.00
7	Flush thread end caps $8.00ea	$ 56.00
7	Well cap locks $53.00ea	$371.00
7	3' Stickup Manhole well cover $75.00ea	$525.00

By: _____
Nugget S. Grosserete

EnviroWorks, LLC
P.O. Box 7940, Albuquerque, NM 87194 Voice & Fax: 505/765-5887
e-mail: envirowork@newmexico.com N. Sean Grosserete License #81818

LAW OFFICES
HEIDEL, SAMBERSON, NEWELL, COX & MCMAHON

C. GENE SAMBERSON
MICHAEL T. NEWELL
LEWIS C. COX, III
PATRICK B. MCMAHON

311 NORTH FIRST STREET
POST OFFICE DRAWER 1568
LOVINGTON, NEW MEXICO 88260
TELEPHONE (505) 396-5303
FAX (505) 396-5305

P.L. HEIDEL
(1913-1985)

TELECOPY TRANSMITTAL SHEET

CONFIDENTIALITY NOTE
THE INFORMATION CONTAINED IN THIS FACSIMILE MESSAGE IS LEGALLY PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY NAMED BELOW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION, OR COPY OF THIS TELECOPY IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS TELECOPY IN ERROR, PLEASE IMMEDIATELY NOTIFY US BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US AT THE ADDRESS SET FORTH ABOVE VIA THE UNITED STATES POSTAL SERVICE.
****

DATE: November 9, 2001 TIME: 1:12 P.M.

TO: Stephen Ross
OCD

FAX: 505-476-3462

RE: Temporary Grant of Easement

YOU SHOULD RECEIVE 3 PAGE(S) OF COPY, INCLUDING THIS COVER PAGE. PLEASE NOTIFY US IMMEDIATELY AT (505) 396-5303 IF NOT RECEIVED PROPERLY.

(X) FOR YOUR INFORMATION/RECORDS ( ) PER YOUR REQUEST

( ) AS WAS DISCUSSED ( ) FOR YOUR COMMENTS

( ) FOR YOUR REVIEW ( ) PLEASE CALL ME ABOUT THIS

Please be advised that the original Easement will be forwarded to you upon the return of Mr. Samberson on Monday, November 12th.

If you have any questions, please do not hesitate to call.

IF CHECKED ORIGINAL WILL BE FORWARDED TO YOU BY:
( ) FEDERAL EXPRESS ( ) REGULAR MAIL

THANK YOU,

HEIDEL, SAMBERSON, NEWELL, COX & MCMAHON

By: Kristie for CGS

TEMPORARY GRANT OF EASEMENT

MARK LEONARD, individually and as personal representative of the ESTATE OF KATHERINE LEONARD, and JAMES H. FOLEY, grant to the NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES ("EMNRD") and its OIL CONSERVATION DIVISION ("OCD"), its agents, employees and contractors, a temporary and limited easement in, to, upon and over all that portion of the following described real estate in Lea County, New Mexico, to wit:

The Southeast Quarter of the Northwest Quarter (SE1/4NW1/4), the South Half of the Northeast Quarter (S1/2NE1/4), the Northeast Quarter of the Southwest Quarter (NE1/4SW1/4) and the North Half of the Southeast Quarter (N1/2SE1/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico,

together with reasonable access thereto.

Said easement is given for the limited purpose of drilling, constructing and maintaining upon the premises a monitor water well or wells with which the Oil Conservation Division will use to assess and monitor contaminants below the surface, and for the purpose of routinely visiting, sampling and inspecting the aforementioned monitor wells following initial construction and for no other purpose. Said easement shall not include the right to place roads on the above-described lands or the right to blade or scrape the surface or remove top soil. Said temporary easement shall terminate automatically two years from the date of execution of this document. Alternatively, said easement may be terminated earlier when the monitor wells are not needed for the purpose described at which time they shall be removed and the premises restored to its condition prior to the time this easement was granted.

Witness my hand and seal this 29th day of October, 2001.

Mark Leonard

MARK LEONARD, individually and as personal representative of the Estate of Katherine Leonard

James H. Foley

JAMES H. FOLEY

ACKNOWLEDGMENTS

STATE OF Wyoming)
)
COUNTY OF Natrona)

The foregoing instrument was acknowledged before me this 2 day of ~~October~~ November, 2001, by Mark Leonard, individually and as personal representative of the Estate of Katherine Leonard.

BONNIE GARRETT - NOTARY PUBLIC
County of Natrona State of Wyoming
My Commission Expires Jan. 29, 2004

Bonnie Garrett
Notary Public

My commission expires:

1-29-04

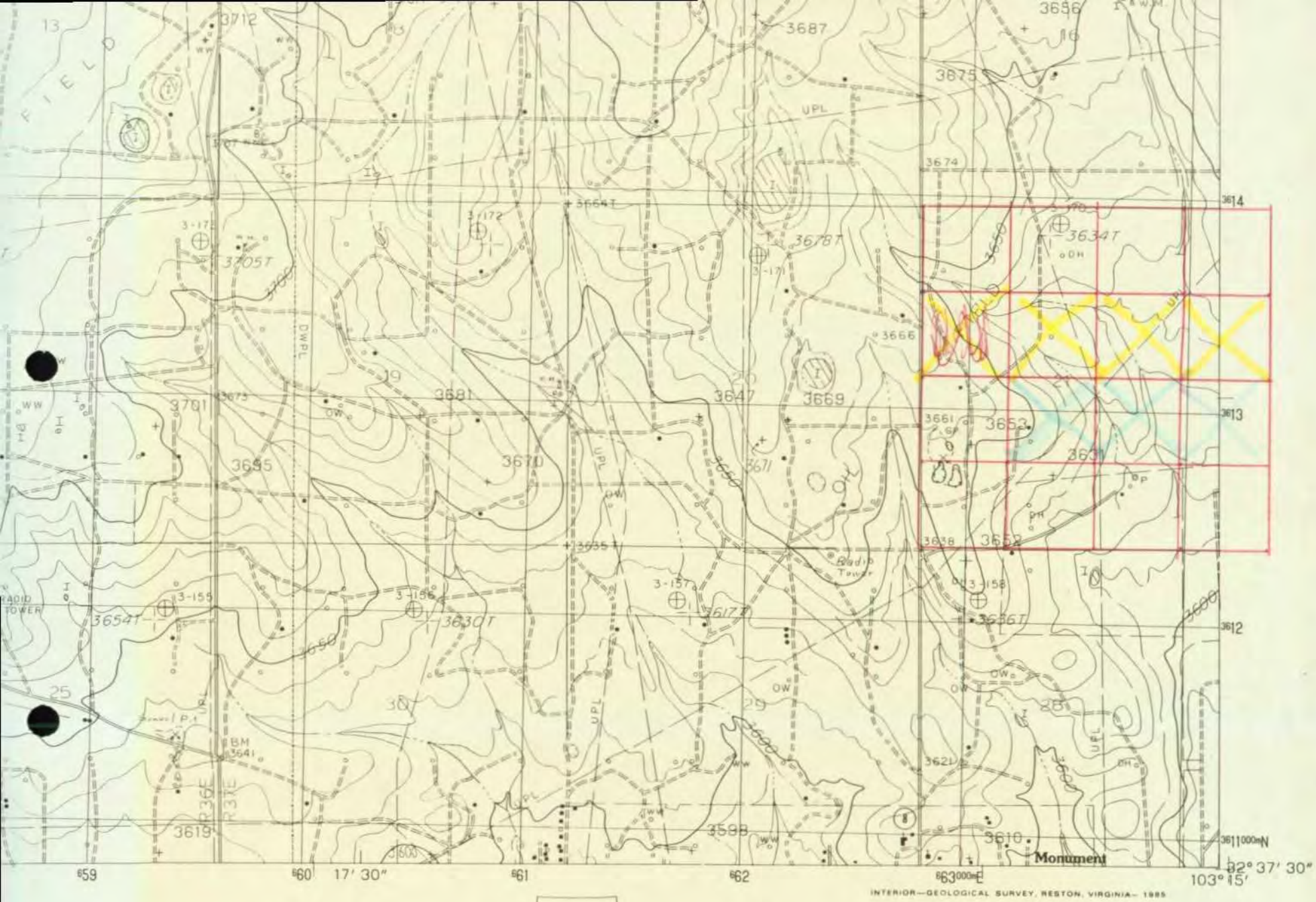
STATE OF New Mexico)
)
COUNTY OF Valencia)

The foregoing instrument was acknowledged before me this 31st day of October, 2001, by James H. Foley.

Notary Public

My commission expires:

3/23/05



1 MILE

5000 6000 7000 FEET

1 KILOMETER

NEW MEXICO

QUADRANGLE LOCATION

1	2	3	1 Lovington SW

ROAD LEGEND

Improved Road .....

Unimproved Road .....

Trail .....

Interstate Route U.S. Route State Route

FEET

RVAL 5 FEET

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 9, 2001

Via Facsimile and First Class Mail

C. Gene Samberson
Heidel, Samberson, Newell & Cox
P.O. Box 1599
Lovington, New Mexico 88260

Re: Temporary Easement for Investigation of the Oil Conservation Division;
Property of Mark Leonard and James H. Foley

Dear Mr. Samberson,

With your assistance, the Division has completed six monitor wells on the property of your clients, Mark Leonard and James H. Foley. The contractor has sampled and analyzed the results and excerpts from the report are attached.

The data seem to indicate that the plume of contamination that has affected the water well of the adjoining property does not originate from the north-south pipelines initially suspected. As you can see when you review Figure 4 (attached), the well that shows the highest concentration of contaminants is Monitor Well No. 4; this suggests that the contamination is traveling down gradient from the north or northeast.

There are pipelines that travel roughly east-west some distance north of the present monitor wells; they are the only possible source of contamination in the vicinity of which we are aware. Since only one of the monitor wells is in the plume (MW 4), locating the source given the current well configuration is problematic. Unfortunately, this means additional monitor wells will need to be installed, and once again we have to ask for the cooperation of your clients in this effort.

We would like to place a group of wells generally north and northeast of MW 4. These wells should be in the main plume and should pinpoint the source once and for all. We additionally plan to locate a well north of the east-west pipelines to verify the source is within the pipeline right-of-way (this well should show no contamination).

The present easement permits the Division to place monitor wells in the South 1320 feet of the NE/4SW/4 and the N/2SE/4. Given the pattern of contamination seen in the present wells, it appears that we will need to place at least one well of the next group farther north than the easement permits. Accordingly, I have taken the liberty of drafting a revised Temporary Grant of Easement for your consideration. It is identical with the prior easement, except that it now permits the Division to place wells up to 2640 feet from the south property line. As I am not aware of the present state of the probate of Mrs. Leonard, I left the signature blocks the same as the prior easement. Please feel free to modify them to reflect the present state of affairs.

Please give me a call at (505) 476-3451 if you have any questions. Your attention to this matter is always appreciated.

Sincerely,

Stephen C. Ross, Assistant general Counsel

Enclosures as noted

Cc: William Olson, OCD

TEMPORARY GRANT OF EASEMENT

MARK LEONARD, individually and as personal representative of the ESTATE OF KATHERINE LEONARD, and JAMES H. FOLEY, grant to the NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES ("EMNRD") and its OIL CONSERVATION DIVISION ("OCD"), its agents, employees and contractors, a temporary and limited easement in, to, upon and over all that portion of the following described real estate in Lea County, New Mexico, to wit:

> The South 2640 feet of the Northeast Quarter of the Southwest Quarter (NE1/4SW1/4) and the South 2640 feet of the North Half of the Southeast Quarter (N1/2SE1/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico,

together with reasonable access thereto.

Said easement is given for the limited purpose of drilling, constructing and maintaining upon the premises a monitor well or wells with which the Oil Conservation Division will use to assess and monitor contaminants below the surface, and for the purpose of routinely visiting, sampling and inspecting the aforementioned monitor wells following initial construction and for no other purpose. Said easement shall not include the right to place roads on the above-described lands or the right to blade or scrape the surface or remove top soil. Said temporary easement shall terminate automatically two years from the date of execution of this document. Alternatively, said easement may be terminated earlier when the monitor wells are no needed for the purpose described at which time they shall be removed and the premises restored to its condition prior to the time this easement was granted.

Witness my hand and seal this _____ day of October, 2001.

_____

MARK LEONARD, individually and as personal representative of the Estate of Katherine Leonard

_____

JAMES H. FOLEY

ACKNOWLEDGMENTS

STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of October, 2001, by Mark Leonard, individually and as personal representative of the Estate of Katherine Leonard.

_____
Notary Public

My commission expires:

_____

STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of October, 2001, by James H. Foley.

_____
Notary Public

My commission expires:

_____

1 October 2001
AMEC Project No. 1-517-000035

MONITORING WELL INSTALLATION AND GROUND WATER SAMPLING

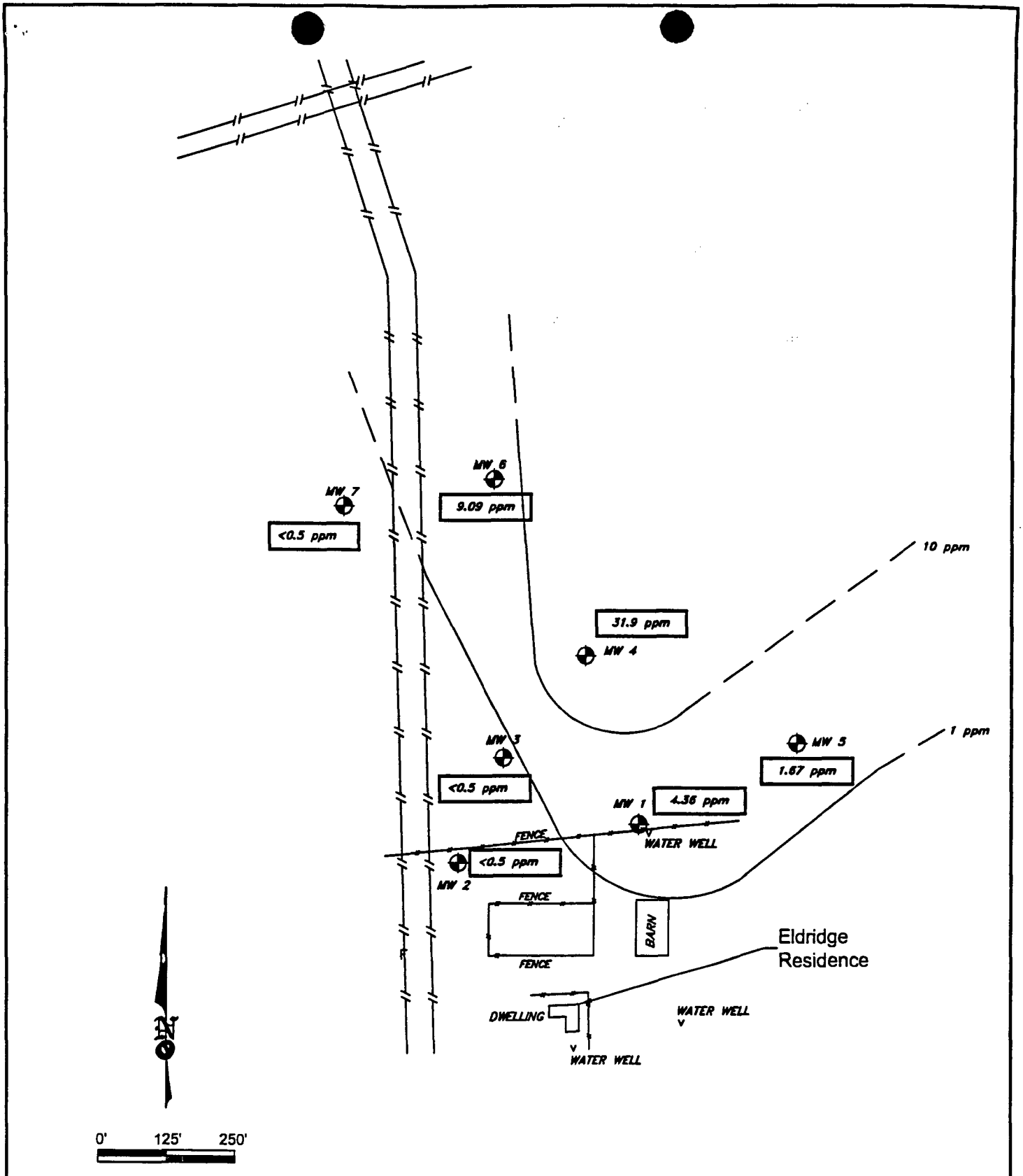
ELDRIDGE RANCH
LEA COUNTY, NEW MEXICO

Submitted To:

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

Submitted By:

AMEC Earth & Environmental, Inc.
8519 Jefferson, N.E.
Albuquerque, New Mexico 87113



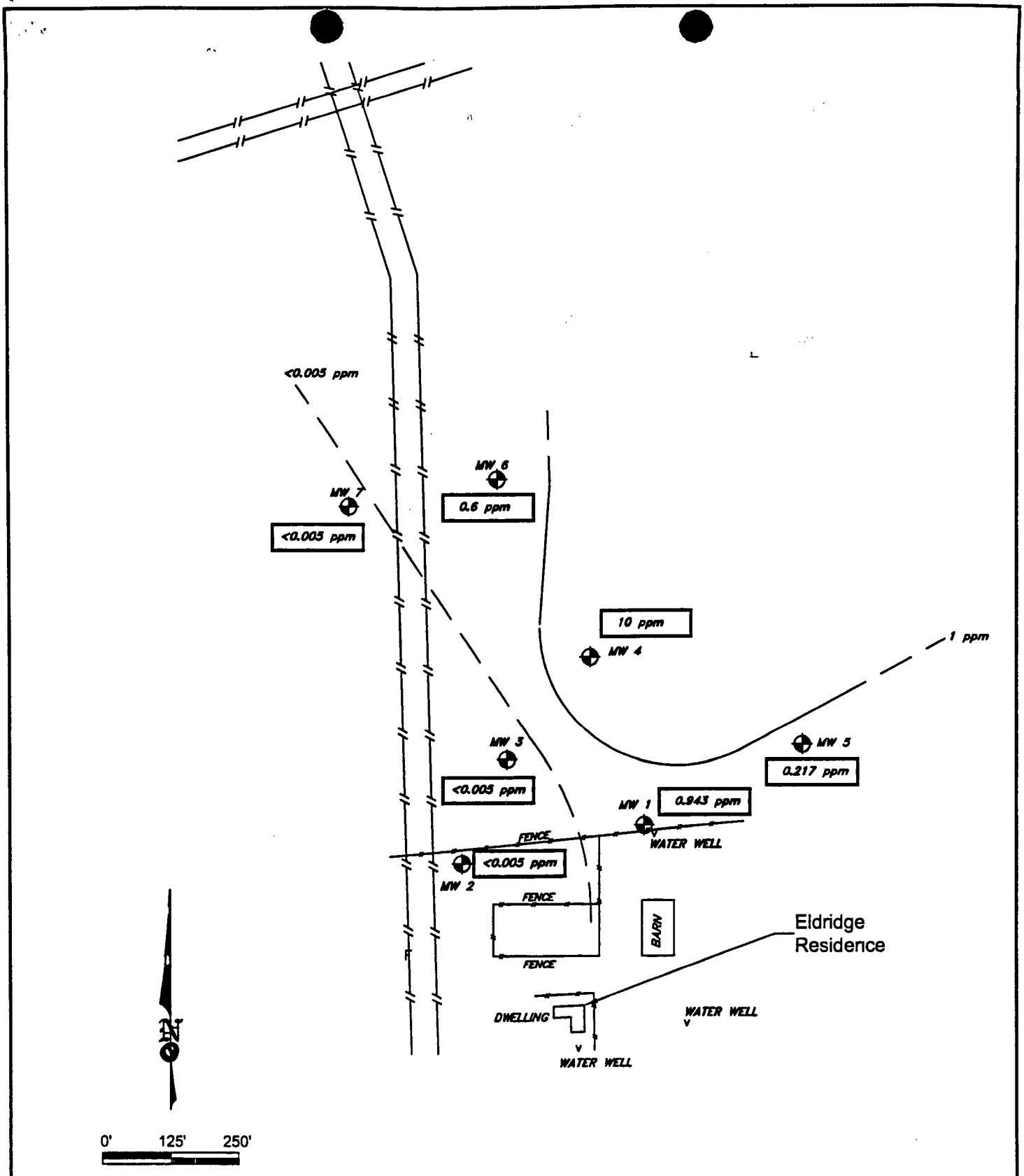
Eldridge Ranch
Lea County, New Mexico
AMEC Project No. 1-517-000035

amec
6519 Jefferson NE
Albuquerque, New Mexico 87113

TPH (Gasoline Range) Contour in Ground Water

Figure No. 5

Date Drawn: 4 September 2001 | Drawn By: RJT | Checked By: BEW



Samples were obtained during August 2001

Eldridge Ranch Lea County, New Mexico AMEC Project No. 1-517-000035	amec 8519 Jefferson NE Albuquerque, New Mexico 87113	**Benzene Concentration Contours in Ground Water**	Figure No. 4
		Date Drawn: 4 September 2001	Drawn By: RJT Checked By: BEW

Ground water from monitor wells MW-1, MW-4, MW-5, and MW-6 will be containerized together at a later date.

The drums of soil and water will be stored at the site until the project is complete. At that time, the drummed soil and water will be disposed of at a OCD approved disposal facility.

8.0 CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER STUDY

- A release of refined gasoline, condensate, or other petroleum products has impacted ground water in the vicinity of the Eldridge Ranch and the adjacent property to the north as indicated by hydrocarbon concentrations from MW-1, MW-4, MW-5, and MW-6. Benzene concentrations are above NMWQCC standards in these wells. Toluene and xylenes concentrations were also above NMWQCC standards in MW-4.

- Ground water elevations obtained during the project indicate ground water flow direction is to the south and southwest in the site vicinity, with a hydraulic gradient of 0.000625 ft/ft. Additional data points and continued monitoring will assist in defining the ground water flow direction and if seasonal variations occur in the area.

- The vertical extent of hydrocarbons appears to have been defined to the west and northwest of the vicinity of the Eldridge Ranch. The ground water contour and contaminant plume maps suggest the source of the contamination emanates from the north, northeast or east of the site vicinity.

- Ground water analytical results obtained from the monitor wells installed during the project indicate the presence of concentrations of aluminum, barium, chromium, iron, and manganese above NMWQCC standards. It is not known if these concentrations are background levels for the site vicinity or if the concentrations are the result of a release.

At this time, AMEC recommends that additional monitors well be installed to the north, northeast and east of the site. The location of nearby pipelines and other oil field facilities in these directions should be documented to determine possible contaminant sources.

The elevated concentrations of metals detected at the site should be examined to determine if the concentrations are naturally occurring in the area or are from an outside source.

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: August 31, 2001 Order Number: A01081410 Page Number: 1 of 7
1517000035 Eldrich Farms Monument-Rt. 8

Summary Report

Bill Wilcox
AMEC
8519 Jefferson NE
Albuquerqe, NM 87113

Report Date: August 31, 2001

Order ID Number: A01081410

Project Number: 1517000035
Project Name: Eldrich Farms
Project Location: Monument-Rt. 8

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
177064	MW-1	Water	8/10/01	13:50	8/14/01
177065	MW-2	Water	8/10/01	18:20	8/14/01
177066	MW-3	Water	8/10/01	19:55	8/14/01
177067	MW-4	Water	8/10/01	9:05	8/14/01
177068	MW-5	Water	8/10/01	12:05	8/14/01
177069	MW-5 (Duplicate)	Water	8/10/01	12:05	8/14/01
177070	MW-6	Water	8/10/01	10:35	8/14/01
177071	MW-7	Water	8/10/01	12:30	8/14/01

This report consists of a total of 7 page(s) and is intended only as a summary of results for the sample(s) listed above.

	BTEX					TPH DRO	TPH GRO
Sample - Field Code	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)	DRO (ppm)	GRO (ppm)
177064 - MW-1	0.943	0.12	0.052	0.08	1.18	<5	4.36
177065 - MW-2	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.5
177066 - MW-3	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.5
177067 - MW-4	10	6.96	0.19	0.632	17.8	<5	31.9
177068 - MW-5	0.217	0.185	0.024	0.129	0.555	<5	1.87
177069 - MW-5 (Duplicate)	0.182	0.159	0.02	0.109	0.47	<5	1.28
177070 - MW-6	0.6	0.502	0.024	0.1	1.23	<5	9.69
177071 - MW-7	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.5

Sample: 177064 - MW-1

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		234	mg/L as CaCo3
Total Alkalinity		234	mg/L as CaCo3
Specific Conductance		684	µMHOS/cm
CL		59.8	mg/L
Fluoride		2.17	mg/L
Nitrate-N	1	<1.0	mg/L
Sulfate		19.6	mg/L

Continued on next page ...

[1] Sample out of hold time for NO3.

This is only a summary. Please, refer to the complete report package for quality control data.

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: August 31, 2001 Order Number: A01081410 Page Number: 2 of 7
1517000035 Eldrich Farms Monument Rt. 8

Sample 177064 continued ...

Param	Flag	Result	Units
Dissolved Calcium		84.7	mg/L
Dissolved Magnesium		16.7	mg/L
Dissolved Potassium		6.65	mg/L
Dissolved Sodium		36.6	mg/L
Total Dissolved Solids		496	mg/L
Total Aluminum		8.13	mg/L
Total Arsenic		<0.05	mg/L
Total Barium		0.738	mg/L
Total Boron		0.155	mg/L
Total Cadmium		<0.025	mg/L
Total Chromium		0.02	mg/L
Total Cobalt		<0.025	mg/L
Total Copper		<0.0125	mg/L
Total Iron		6.11	mg/L
Total Lead		<0.01	mg/L
Total Manganese		0.28	mg/L
Total Molybdenum		<0.05	mg/L
Total Nickel		<0.025	mg/L
Total Selenium		<0.05	mg/L
Total Silver		<0.0125	mg/L
Total Zinc		<0.025	mg/L
pH	[2]	7.4	s.u.

Sample: 177065 - MW-2

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		188	mg/L as CaCo3
Total Alkalinity		188	mg/L as CaCo3
Specific Conductance		679	µMHOS/cm
CL		47.0	mg/L
Fluoride		2.09	mg/L
Nitrate-N	[3]	3.08	mg/L
Sulfate		70.9	mg/L
Dissolved Calcium		87.5	mg/L
Dissolved Magnesium		13.2	mg/L
Dissolved Potassium		6.5	mg/L
Dissolved Sodium		34.9	mg/L
Total Dissolved Solids		578	mg/L
Total Aluminum		17.8	mg/L
Total Arsenic		<0.05	mg/L
Total Barium		1.39	mg/L
Total Boron		0.171	mg/L
Total Cadmium		<0.025	mg/L
Total Chromium		0.07	mg/L
Total Cobalt		<0.025	mg/L
Total Copper		<0.0125	mg/L
Total Iron		12.8	mg/L
Total Lead		0.017	mg/L

Continued on next page ...

[2]out of holding time
[3]Sample out of hold time for NO3.

This is only a summary. Please, refer to the complete report package for quality control data.

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: August 31, 2001 Order Number: A01081410 Page Number: 3 of 7
15170000035 Eldrich Farms Monument-Rt. 8

Sample 177065 continued ...

Param	Flag	Result	Units
Total Manganese		0.169	mg/L
Total Molybdenum		<0.05	mg/L
Total Nickel		<0.025	mg/L
Total Selenium		<0.05	mg/L
Total Silver		<0.0125	mg/L
Total Zinc		<0.025	mg/L
pH	4	7.5	s.u.

Sample: 177066 - MW-3

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		172	mg/L as CaCo3
Total Alkalinity		172	mg/L as CaCo3
Specific Conductance		570	µMHOS/cm
CL		29.0	mg/L
Fluoride		2.33	mg/L
Nitrate-N	5	2.73	mg/L
Sulfate		57.0	mg/L
Dissolved Calcium		70.6	mg/L
Dissolved Magnesium		10.9	mg/L
Dissolved Potassium		5.79	mg/L
Dissolved Sodium		25.3	mg/L
Total Dissolved Solids		432	mg/L
Total Aluminum		50.7	mg/L
Total Arsenic		<0.05	mg/L
Total Barium		0.556	mg/L
Total Boron		0.233	mg/L
Total Cadmium		<0.025	mg/L
Total Chromium		0.137	mg/L
Total Cobalt		<0.025	mg/L
Total Copper		0.017	mg/L
Total Iron		29.4	mg/L
Total Lead		0.016	mg/L
Total Manganese		0.334	mg/L
Total Molybdenum		<0.05	mg/L
Total Nickel		<0.025	mg/L
Total Selenium		<0.05	mg/L
Total Silver		<0.0125	mg/L
Total Zinc		0.06	mg/L
pH	6	7.6	s.u.

Sample: 177067 - MW-4

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3

Continued on next page ...

[4]out of holding time
[5]Sample out of hold time for NO3.
[6]out of holding time

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TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: August 31, 2001 Order Number: A01081410 Page Number: 4 of 7
1517000035 Eldrich Farms Monument-Rt. 8

Sample 177067 continued ...

Param	Flag	Result	Units
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		230	mg/L as CaCo3
Total Alkalinity		230	mg/L as CaCo3
Specific Conductance		803	µMHOS/cm
CL		72.0	mg/L
Fluoride		2.02	mg/L
Nitrate-N	7	<1.0	mg/L
Sulfate		57.2	mg/L
Dissolved Calcium		76.5	mg/L
Dissolved Magnesium		15.8	mg/L
Dissolved Potassium		6.28	mg/L
Dissolved Sodium		35.2	mg/L
Total Dissolved Solids		548	mg/L
Total Aluminum		50.6	mg/L
Total Arsenic		<0.05	mg/L
Total Barium		2.87	mg/L
Total Boron		0.263	mg/L
Total Cadmium		<0.025	mg/L
Total Chromium		0.268	mg/L
Total Cobalt		<0.025	mg/L
Total Copper		0.021	mg/L
Total Iron		30.9	mg/L
Total Lead		0.022	mg/L
Total Manganese		0.588	mg/L
Total Molybdenum		<0.05	mg/L
Total Nickel		<0.025	mg/L
Total Selenium		<0.05	mg/L
Total Silver		<0.0125	mg/L
Total Zinc		<0.05	mg/L
pH	8	7.4	s.u.

Sample: 177068 - MW-5

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		232	mg/L as CaCo3
Total Alkalinity		232	mg/L as CaCo3
Specific Conductance		729	µMHOS/cm
CL		62.6	mg/L
Fluoride		1.88	mg/L
Nitrate-N	9	<1.0	mg/L
Sulfate		37.0	mg/L
Dissolved Calcium		96	mg/L
Dissolved Magnesium		17.4	mg/L
Dissolved Potassium		8	mg/L
Dissolved Sodium		36.9	mg/L
Total Dissolved Solids		521	mg/L
Total Aluminum		52.3	mg/L

Continued on next page ...

[7]Sample out of hold time for NO3.
[8]out of holding time
[9]Sample out of hold time for NO3.

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TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: August 31, 2001 Order Number: A01081410 Page Number: 5 of 7
1517000035 Eldrich Farms Monument-Rt. 8

Sample 177068 continued ...

Param	Flag	Result	Units
Total Arsenic		<0.05	mg/L
Total Barium		1.32	mg/L
Total Boron		0.265	mg/L
Total Cadmium		<0.025	mg/L
Total Chromium		0.09	mg/L
Total Cobalt		<0.025	mg/L
Total Copper		0.019	mg/L
Total Iron		34.1	mg/L
Total Lead		0.023	mg/L
Total Manganese		0.646	mg/L
Total Molybdenum		<0.05	mg/L
Total Nickel		<0.025	mg/L
Total Selenium		<0.05	mg/L
Total Silver		<0.0125	mg/L
Total Zinc		0.08	mg/L
pH	[10]	7.4	s.u.

Sample: 177069 - MW-5 (Duplicate)

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		240	mg/L as CaCo3
Total Alkalinity		240	mg/L as CaCo3
Specific Conductance		745	µMHOS/cm
CL		62.6	mg/L
Fluoride		3.29	mg/L
Nitrate-N	[11]	1.04	mg/L
Sulfate		35.1	mg/L
Dissolved Calcium		89.4	mg/L
Dissolved Magnesium		17.7	mg/L
Dissolved Potassium		8.16	mg/L
Dissolved Sodium		36.3	mg/L
Total Dissolved Solids		642	mg/L
Total Aluminum		40.7	mg/L
Total Arsenic		<0.05	mg/L
Total Barium		1.27	mg/L
Total Boron		0.277	mg/L
Total Cadmium		<0.025	mg/L
Total Chromium		0.078	mg/L
Total Cobalt		<0.025	mg/L
Total Copper		0.016	mg/L
Total Iron		31.7	mg/L
Total Lead		0.026	mg/L
Total Manganese		0.621	mg/L
Total Molybdenum		<0.050	mg/L
Total Nickel		<0.025	mg/L
Total Selenium		<0.05	mg/L
Total Silver		<0.0125	mg/L

Continued on next page ...

[10] out of holding time
[11] Sample out of hold time for NO3.

This is only a summary. Please, refer to the complete report package for quality control data.

Bicarbonate Alkalinity	650	mg/L as CaCo3
Total Alkalinity	650	mg/L as CaCo3
Specific Conductance	1070	µMHOS/cm
CL	120	mg/L

Continued on next page ...

[12] out of holding time
[13] Sample out of hold time for NO3.
[14] out of holding time

This is only a summary. Please, refer to the complete report package for quality control data.

177064-71

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 #: A0108140

Company Name: AKEC
Phone #: 505/821-1801

Address: (Street, City, Zip) 8519 JEFFERSON NE, ALBUQUERQUE
Fax #: 505/821-7371

Contact Person: BOB WILCOX 505/821-1801 or 505/327-7928

Invoice to: (If different from above)

Project #: 1517000035
Project Name: "ELDRICH FARM"

Project Location: MONUMENT-FTB.
Sampler Signature: [signature]

ANALYSIS REQUEST
(Circle or Specify Method No.)

Analysis columns: MTBE 8021B/602; BTEX 8021B/602; ~~TPH 418.1/TX1005~~ TPH GRO & DRO; PAH 8270C; Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7; TCLP Metals Ag As Ba Cd Cr Pb Se Hg; TCLP Volatiles; TCLP Semi Volatiles; TCLP Pesticides; RCI; GC/MS Vol. 8260B/624; GC/MS Semi. Vol. 8270C/625; PCB's 8082/608; Pesticides 8081A/608; BOD, TSS, pH; CATIONS/ANIONS; NMWQCC – METALS; TDS; Turn Around Time if different from standard; Hold

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING DATE	SAMPLING TIME	ANALYSIS REQUEST
177064	MW-1A	1	1L	WATER X	ICE X	8-10-01	13:50	CATIONS/ANIONS X; TDS X
	MW-1B	1	0.25L	WATER X	HNO_3 X	8-10-01	13:50	NMWQCC – METALS X
	MW-1C	4	100ml	WATER X	HCl X	8-10-01	13:50	BTEX X; TPH GRO & DRO X
177065	MW-2A	1	1/2L	WATER X	ICE X	8-9-01	15:20	CATIONS/ANIONS X; TDS X
	MW-2B	1	1/4L	WATER X	HNO_3 X	8-9-01	15:20	NMWQCC – METALS X
	MW-2C	4	100ml	WATER X	HCl X	8-9-01	15:20	BTEX X; TPH GRO & DRO X
177066	MW-3A	1	1/2L	WATER X	ICE X	8-9-01	19:51	CATIONS/ANIONS X; TDS X
	MW-3B	1	1/4L	WATER X	HNO_3 X	8-9-01	19:51	NMWQCC – METALS X
	MW-3C	4	500ml	WATER X	HCl X	8-9-01	19:51	BTEX X; TPH GRO & DRO X
177067	MW-4A	1	1/2L	WATER X	ICE X	8-10-01	[illegible]	CATIONS/ANIONS X; TDS X
	MW-4B	1	1/4L	WATER X	HNO_3 X	8-10-01	[illegible]	NMWQCC – METALS X

Matrix options: WATER, SOIL, AIR, SLUDGE. Preservative options: HCl, HNO_3, H_2SO_4, NaOH, ICE, NONE.

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	08-13-01	16:30			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: [signature]	8-14-01	1020

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4
Log-in Review [initials]

REMARKS: SEND LAB RESULTS TO: WILLIAM OLSEN (SEE PAGE 2)
#2 505/821-7371 } BOB
#3 505/326-5721 } WILCOX

☐ Check If Special Reporting Limits Are Needed

Carrier # 1Z 045 82W 01 4190 3421

ORIGINAL COPY

LAW OFFICES
HEIDEL, SAMBERSON, NEWELL, COX & MCMAHON

C. GENE SAMBERSON
MICHAEL T. NEWELL
LEWIS C. COX, III
PATRICK B. MCMAHON

311 NORTH FIRST STREET
POST OFFICE DRAWER 1699
LOVINGTON, NEW MEXICO 88260
TELEPHONE (505) 396-5303
FAX (505) 396-5305

F.L. HEIDEL
(1913-1985)

TELECOPY TRANSMITTAL SHEET

DATE: July 9, 2001 TIME: 8:47 A.M.

TO: Steve Ross

FAX: 505-476-3462

RE: Temporary Grant of Easement

YOU SHOULD RECEIVE 3 PAGE(S) OF COPY, INCLUDING THIS COVER PAGE. PLEASE NOTIFY US IMMEDIATELY AT (505) 396-5303 IF NOT RECEIVED PROPERLY.

(X) FOR YOUR INFORMATION/RECORDS ( ) PER YOUR REQUEST

( ) AS WAS DISCUSSED ( ) FOR YOUR COMMENTS

( ) FOR YOUR REVIEW ( ) PLEASE CALL ME ABOUT THIS

Please find following, the Temporary Grant of Easement granted by Mark Leonard to OCD.

If you have any questions, please do not hesitate to call.

IF CHECKED ORIGINAL WILL BE FORWARDED TO YOU BY:
( ) FEDERAL EXPRESS ( ) REGULAR MAIL

THANK YOU,

HEIDEL, SAMBERSON, NEWELL, COX & MCMAHON

By: C. Gene Samberson/ksp

TEMPORARY GRANT OF EASEMENT

MARK LEONARD, individually and as personal representative of the ESTATE OF KATHERINE LEONARD, and JAMES H. FOLEY, grant to the NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES ("EMNRD") and its OIL CONSERVATION DIVISION ("OCD"), its agents, employees and contractors, a temporary and limited easement in, to, upon and over all that portion of the following described real estate in Lea County, New Mexico, to wit:

> The South 1320 feet of the Northeast Quarter of the Southwest Quarter (NE1/4SW1/4) and the South 1320 feet of the North Half of the Southeast Quarter (N1/2SE1/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico,

together with reasonable access thereto.

Said easement is given for the limited purpose of drilling, constructing and maintaining upon the premises a monitor well or wells with which the Oil Conservation Division will use to assess and monitor contaminants below the surface, and for the purpose of routinely visiting, sampling and inspecting the aforementioned monitor wells following initial construction and for no other purpose. Said easement shall not include the right to place roads on the above-described lands or the right to blade or scrape the surface or remove top soil. Said temporary easement shall terminate automatically two years from the date of execution of this document. Alternatively, said easement may be terminated earlier when the monitor wells are no needed for the purpose described at which time they shall be removed and the premises restored to its condition prior to the time this easement was granted.

Witness my hand and seal this 30th day of July, 2001.

MARK LEONARD, individually and as personal representative of the Estate of Katherine Leonard

By: James H. Foley
JAMES H. FOLEY, Attorney in Fact for Mark Leonard

James H. Foley
JAMES H. FOLEY

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
:ss
COUNTY OF VALENCIA)

The foregoing instrument was acknowledged before me this 3rd day of July, 2001, by James H. Foley, attorney in fact for Mark Leonard, individually and as personal representative of the Estate of Katherine Leonard.

NOTARY PUBLIC

My Commission Expires:

3/23/05

STATE OF NEW MEXICO)
:ss
COUNTY OF VALENCIA)

The foregoing instrument was acknowledged before me this 3rd day of July, 2001, by James H. Foley.

NOTARY PUBLIC

My Commission Expires:

3/23/05

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

June 22, 2001

Via Facsimile and First Class Mail

C. Gene Samberson
Heidel, Samberson, Newell & Cox
P.O. Box 1599
Lovington, New Mexico 88260

Re: Temporary Easement for Investigation of the Oil Conservation Division

Dear Mr. Samberson,

Since my letter of June 14 I have had occasion to review the deed to the subject property, which I previously believed was held entirely by Ms. Leonard, deceased. It now appears that the Estate of Katherine Leonard owns a 3/5 interest and Mr. James H. Foley owns a 2/5 interest.

As a result of this discovery, it appears that the form of the proposed Temporary Easement I previously sent you was erroneous. I have corrected that in the attached document, although that document continues to assume that Mr. Leonard will be named as a Personal Representative of the Estate of Katherine Leonard.

Mr. Eldridge is very concerned that OCD's investigation of the ground water contamination get under way, and the execution of this document is all that remains to be done before the investigation commences. Can you give me an idea when we expect a decision from your client(s) on this matter?

Sincerely,

Stephen C. Ross
Assistant General Counsel

Cc: William Olson, OCD Environmental Bureau
Gary Wink, OCD, Hobbs
Lori Wrotenbery, Director, Oil Conservation Division

TEMPORARY GRANT OF EASEMENT

MARK LEONARD, individually and as personal representative of the ESTATE OF KATHERINE LEONARD, and JAMES H. FOLEY, grant to the NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES ("EMNRD") and its OIL CONSERVATION DIVISION ("OCD"), its agents, employees and contractors, a temporary and limited easement in, to, upon and over all that portion of the following described real estate in Lea County, New Mexico, to wit:

> The South 1320 feet of the Northeast Quarter of the Southwest Quarter (NE1/4SW1/4) and the South 1320 feet of the North Half of the Southeast Quarter (N1/2SE1/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico,

together with reasonable access thereto.

Said easement is given for the limited purpose of drilling, constructing and maintaining upon the premises a monitor well or wells with which the Oil Conservation Division will use to assess and monitor contaminants below the surface, and for the purpose of routinely visiting, sampling and inspecting the aforementioned monitor wells following initial construction and for no other purpose. Said easement shall not include the right to place roads on the above-described lands or the right to blade or scrape the surface or remove top soil. Said temporary easement shall terminate automatically two years from the date of execution of this document. Alternatively, said easement may be terminated earlier when the monitor wells are no needed for the purpose described at which time they shall be removed and the premises restored to its condition prior to the time this easement was granted.

Witness my hand and seal this _____ day of July, 2001.

_____

MARK LEONARD, individually and as personal representative of the Estate of Katherine Leonard

_____

JAMES H. FOLEY

ACKNOWLEDGMENTS

STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of July, 2001, by Mark Leonard, individually and as personal representative of the Estate of Katherine Leonard.

_____
Notary Public

My commission expires:

_____

STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of July, 2001, by James H. Foley.

_____
Notary Public

My commission expires:

_____

Wed 7/2/01

AMEC Earth & Environmental, Inc.
P.O. Box 24445
Seattle, Washington 98124-0445

JUN 2 2 2001

INVOICE 518200

MAY-11-2001
Page Number 1
Revised 06-18-01

State of New Mexico
Oil Conservation Division
1220 South St Francis Drive
Santa Fe NM 87505

ATTENTION: Mary Anaya

Professional Services APR-28-2001 Thru APR-28-2001

Project 1-517-000035 Eldridge Ranch Enviro Investigation

P.O. #SPD 00-805-09-17658
Doc. #01-311-006443
Project Manager: William C. Olson

Professional Fees		967.00
Expenses		235.00
	Current Billing	1,202.00
	NMGRT @ 5.8125 %	69.87
	Amount Due This Invoice	1,271.87

Total Budget	16,950.20
Prior Billings	.00
CURRENT INVOICE	1,202.00
Budget Remaining	15,748.20

Project Manager: Wilcox, Robert E.

Terms: Net thirty (30) days. After thirty (30) days from invoice date a late charge of one and one-half percent (1½%) per month, or the maximum rate allowed by law may be charged.

Direct all billing inquiries to your AMEC Earth & Environmental, Inc. Project Manager.
Please visit our website at
http://www.amecee.com

Federal Tax # [redacted]

AMEC Earth & Environmental, Inc.
P.O. Box 24445
Seattle, Washington 98124-0445

INVOICE 518200

MAY-11-2001

Revised 06-18-01

LABOR

		HOURS	RATE	AMOUNT
Project Manager				
Wilcox, Robert E.	03/30/01	3.00		
Site Safety Plan Prep				
	***	3.00	75.00	225.00
Staff Scientist Analysis				
Wilcox, Robert E.	03/19/01	12.00		
Travel to Monument, NM to determine location of site wells				
	***	12.00	57.00	684.00
Word Processor				
Trujillo, Robert J.	03/30/01	1.00		
Set up job in system				
Trujillo, Robert J.	04/06/01	1.00		
Project Administration				
	***	2.00	29.00	58.00
		17.00		967.00

EXPENSES

		QTY		RATE	AMOUNT
Unit Charges					
Unit Pricing					
Mileage, Vehicle		700.00	Mile(s)		
R Wilcox Mileage to Monument, NM from Abq.NM and from Monument, NM to Abq.NM 03/19/01 to 03/20/01					
	***	700.00		.2500	175.00
Per Diem		1.00	Day(s)		
HG327A	03/19/01				
R Wilcox					
	***	1.00		60.0000	60.00
					235.00

** Total Project 1-517-000035 1,202.00

Terms: Net thirty (30) days. After thirty (30) days from invoice date a late charge of one and one-half percent (1½%) per month, or the maximum rate allowed by law may be charged.

Direct all billing inquiries to your AMEC Earth & Environmental, Inc. Project Manager.
Please visit our website at
http://www.amecee.com

Federal Tax # [redacted]

NEW MEXICO ENERGY, MINERALS and
NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

June 14, 2001

C. Gene Samberson
Heidel, Samberson, Newell & Cox
P.O. Box 1599
Lovington, New Mexico 88260

Re: Temporary Easement for Investigation of the Oil Conservation Division

Dear Mr. Samberson,

Thanks for your letter of June 8.

I understand that Mr. Foley has power of attorney for Mr. Leonard, but I doubt that it would be binding on the Estate. I think we would prefer to have the easement executed by the Personal Representative, even if it means waiting a short time.

I am a bit concerned about the proposed description of the location of the easement and monitoring wells. As you are aware, the goal of the investigation is to determine the source of hydrocarbon contamination of a water well immediately to the South of the Leonard Estate property. The most reasonable sources of contamination are underground pipelines and oil and gas production sites on the Estate's property. The Division feels that the monitoring wells need to be fairly widely dispersed to accurately pinpoint the source of the contamination. The Division is concerned that placing monitor wells only on the southernmost 660 feet of the Leonard Estate property may affect its ability to pinpoint the source.

But, it is the limitation described in your letter to one-year that concerns us the most. Monitor wells need to be in place for long enough so the source of the hydrocarbon plume can be determined. If contamination is discovered and a clean up ordered, the wells will help monitor the clean up. A monitoring period of one year is therefore not realistic. I would suggest that a period of five years would be more appropriate to fully assess the situation, but two years would be acceptable as well. The longer the period the Division can examine the situation, the more accurate the assessment.

Also of great concern is the number of wells. If a well or well shows contamination, it may be necessary to drill an additional well or wells to accurately pinpoint the source.

I have re-drafted the easement to reflect my comments. A copy is attached. I hope the Estate will agree to these minor revisions. I'm sure it has occurred to you that it is in your client's best interests to assist the Division in locating the source of the contamination, since it may in fact arise on the property of the Estate.

All your assistance in seeing that this investigation proceeds quickly will be very greatly appreciated.

Sincerely,

Stephen C. Ross
Assistant General Counsel

Cc: William Olson, OCD Environmental Bureau
Gary Wink, OCD, Hobbs

TEMPORARY GRANT OF EASEMENT

MARK LEONARD, individually and as personal representative of the ESTATE OF KATHERINE LEONARD, grants to the NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES ("EMNRD") and its OIL CONSERVATION DIVISION ("OCD"), its agents, employees and contractors, a temporary and limited easement in, to, upon and over all that portion of the following described real estate in Lea County, New Mexico, to wit:

> The South 1320 feet of the Northeast Quarter of the Southwest Quarter (NE1/4SW1/4) and the South 1320 feet of the North Half of the Southeast Quarter (N1/2SE1/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico,

together with reasonable access thereto.

Said easement is given for the limited purpose of drilling, constructing and maintaining upon the premises a monitor well or wells with which the Oil Conservation Division will use to assess and monitor contaminants below the surface, and for the purpose of routinely visiting, sampling and inspecting the aforementioned monitor wells following initial construction and for no other purpose. Said easement shall not include the right to place roads on the above-described lands or the right to blade or scrape the surface or remove top soil. Said temporary easement shall terminate automatically two years from the date of execution of this document. Alternatively, said easement may be terminated earlier when the monitor wells are no needed for the purpose described at which time they shall be removed and the premises restored to its condition prior to the time this easement was granted.

Witness my hand and seal this _____ day of June, 2001.

_____

MARK LEONARD, individually and as personal representative of the Estate of Katherine Leonard

ACKNOWLEDGMENT

STATE OF _____)
)
COUNTY OF _____)

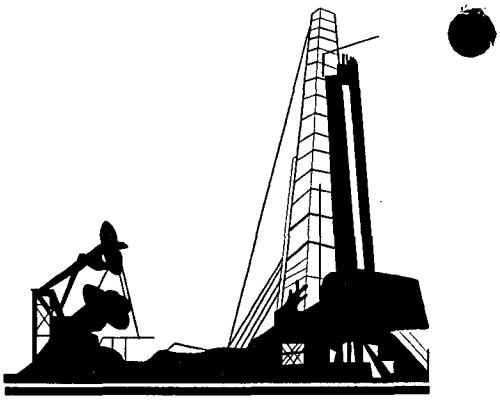
The foregoing instrument was acknowledged before me this ____ day of April, 2001, by Mark Leonard, individually and as personal representative of the Estate of Katherine Leonard.

_____

Notary Public

My commission expires:

_____



TRANSMITTAL COVER SHEET

OIL CONSERVATION DIVISION
1220 S. ST. FRANCIS DRIVE
SANTA FE, NM 87505
(505) 476-3440
(505)476-3462 (Fax)

PLEASE DELIVER THIS FAX:

TO: Bob Wilcox - Amec

FROM: Bill Olson

DATE: 6/8/01

PAGES: 3 w/cover

SUBJECT: Need description of services performed

IF YOU HAVE TROUBLE RECEIVING THIS FAX, PLEASE CALL THE OFFICE NUMBER ABOVE.

amec

INVOICE 518200

MAY-11-2001
Page Number 1

AMEC Earth & Environmental, Inc.
P.O. Box 24445
Seattle, Washington 98124-0445

State of New Mexico
Oil Conservation Division
1220 South St Francis Drive
Santa Fe NM 87505

ATTENTION: Mary Anaya

Professional Services APR-28-2001 Thru APR-28-2001

Project 1-517-000035 Eldridge Ranch Enviro Investigation

P.O. #SPD 00-805-09-17658
Doc. #01-311-006443
Project Manager: William C. Olson

Professional Fees	967.00
Office Equip & Supplies Recovery	58.02
Expenses	235.00
Current Billing	1,260.02
NMGRT @ 5.8125 %	73.24
Amount Due This Invoice	1,333.26

Total Budget	16,950.20
Prior Billings	.00
CURRENT INVOICE	1,260.02
Budget Remaining	15,690.18

Project Manager: Wilcox, Robert E.

amec

AMEC Earth & Environmental, Inc.
P.O. Box 24445
Seattle, Washington 98124-0445

INVOICE 518200

MAY-11-2001

LABOR

		HOURS	RATE	AMOUNT
Project Manager				
Wilcox, Robert E.	03/30/01	3.00		
	***	3.00	75.00	225.00
Staff Scientist Analysis				
Wilcox, Robert E.	03/23/01	12.00		
	***	12.00	57.00	684.00
Word Processor				
Trujillo, Robert J.	03/30/01	1.00		
Trujillo, Robert J.	04/06/01	1.00		
	***	2.00	29.00	58.00
		17.00		967.00

EXPENSES

		QTY		RATE	AMOUNT
Unit Charges					
Unit Pricing					
Mileage, Vehicle		700.00	Mile(s)		
H0417H	03/23/01				
R Wilcox					
	***	700.00		.2500	175.00
Per Diem		1.00	Day(s)		
HG327A	03/23/01				
R Wilcox					
	***	1.00		60.0000	60.00
					235.00

** Total Project 1-517-000035 1,202.00

Terms: Net thirty (30) days. After thirty (30) days from invoice date a late charge of one and one-half percent (1½%) per month, or the maximum rate allowed by law may be charged.

Direct all billing inquiries to your AMEC Earth & Environmental, Inc. Project Manager.
Please visit our website at http://www.amecee.com

Federal Tax # [redacted]

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

May 25, 2001

C. Gene Samberson
Heidel, Samberson, Newell & Cox
P.O. Box 1599
Lovington, New Mexico 88260

Re: Temporary Easement for Investigation of the Oil Conservation Division

Dear Mr. Samberson,

I previously wrote on April 2 inquiring about a temporary easement on a small portion of the lands of the Estate of Katherine Leonard. At that time, I attached a draft easement for your review.

As you are aware, the Oil Conservation Division is endeavoring to determine the source of a pipeline leak so that abatement of the leak can begin. In order to do accomplish this, several monitor wells need to set and monitored. The impact to your client's property will consist of a brief disturbance while the wells are drilled, and periodic monitoring of the wells thereafter. Once the wells are no longer needed, they will be removed and the area restored. William Olson of this office can provide you with details of the proposed operation. To gain access for these activities, the temporary easement resulted.

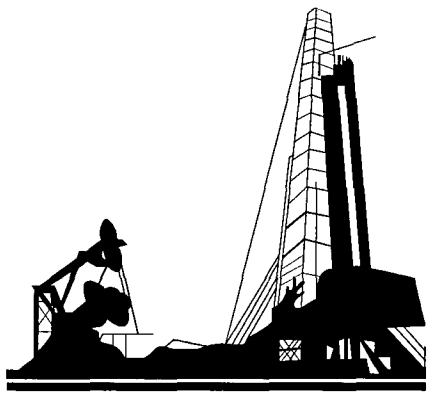
We are anxious to begin the investigation. First, we are concerned that the source of contamination may still be present. If so, contamination may still be occurring. Second, we have a contractor standing by to drill the monitor wells and begin sampling, as soon as we get permission from the Estate to do so. We have already received an easement from Mr. Frank Eldridge, an adjoining landowner.

I understand that the personal representative will need to execute the temporary easement, and that person had not been appointed as of the date of previous conversation in early April. Let me know if there is anything I can do to expedite this matter.

Please give me a call at 476-3451 if you have any questions. Thank you for your assistance.

Sincerely,

Stephen C. Ross
Assistant General Counsel



TRANSMITTAL COVER SHEET

OIL CONSERVATION DIVISION
1220 S. ST. FRANCIS DRIVE
SANTA FE, NM 87505
(505) 476-3440
(505)476-3462 (Fax)

PLEASE DELIVER THIS FAX:

TO: Gary Wink

FROM: Bill Olson

DATE: @ 5/3/01

PAGES: 5 /w cover

SUBJECT: Eldridge Ranch

IF YOU HAVE TROUBLE RECEIVING THIS FAX, PLEASE CALL THE OFFICE NUMBER ABOVE.

TEMPORARY GRANT OF EASEMENT

FRANK D. ELDRIDGE and SHELLY L. ELDRIDGE, husband and wife as joint tenants, P.O. Box 153, Monument, New Mexico, 88265, for consideration, grant to the NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES ("EMNRD"), its agents, employees and contractors, a temporary and limited easement in, to, upon and over all that portion of the following described real estate in Lea County, New Mexico known as the "Eldridge Ranch" and described below, together with reasonable access thereto:

SURFACE TITLE ONLY:

PARCEL 1

The Southeast Quarter of the Southeast Quarter (SE/4SE/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

PARCEL 2

The Southeast Quarter of the Southwest Quarter (SE/4SW/4) and the Southwest Quarter of the Southeast Quarter (SW/4SE/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

LESS AND EXCEPT
A tract of land situated in Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being further described as follows:

Beginning at a point on the North-South Quarter line which lies N00°01'2S"E 775.02 feet from the South Quarter corner of said Section 21; thence N00°01'25"E 365.00 feet; thence S89°53'E S96.71 feet; thence S00°01'25"W 365.00 feet; thence N89°53'W 596.71 feet to the point of beginning.

TOGETHER WITH the following described Ingress-Egress Easement:
A strip of land 30 feet in width and 1694.00 feet in length lying in Sections 21 and 28, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being 15 feet right and 15 feet left of the following described centerline:

> Beginning at Sta. 0+00, a point which lies S89°21'54"W 1318.81 feet from the common Quarter corner of said Sections 21 and 28; thence N63°46'19'E 82.32 feet to Sta. 0+82.32, a P.I. of 02°50'34" right, at station 0+33.92 crossing the common line between said Section 21 and 28 at a point which lies S89°59'E 1349.13 feet from the common West corner of said Sections 21 and 29; thence N66°36'53"E 487.80 feet to Sta. 5+70.12, a P.I. of 06°22'13" left; thence N60°14'40" 1058.30 feet to Sta. 16+28.42, a P.I. of 01'31'11" left; thence N58°43'29"E 6'5.58 feet to Sta. 16+94, a point which lies N12°54'59"E 794.77 feet from the common Quarter corner of said Sections 21 and 28.

LESS AND EXCEPT:

A tract of land situated in Section 21, Township 19 South, Range 36 East, N.M.P.M., Lea County, New Mexico, being more particularly described as follows:

Beginning N89°59'W 1047.62 feet and N0°2'30"E 126.59 feet from the South Quarter corner of said Section 21; thence S66°48'55"W 295.34 feet; thence N0°2'30"E 1009.22 feet; thence N84°59'09"E 272.46 feet;. thence S0°2'30"W 916.76 feet to the point of beginning.

PARCEL 3

The Northeast Quarter of the Northwest Quarter (NE/4NW/4) and the Northwest Quarter of the Northeast Quarter (NW/4NE/4) of Section 28, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

PARCEL 4:

A tract of land situated in Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being further described as follows:

Beginning at a point on the North-South Quarter line which lies N00°01'25"E 775.02 feet from the South Quarter corner of said Section 21; thence N00°01'25"E 365.00 feet; thence S89°53'E 596.71 feet; thence S00°01'25"W 365.00 feet; thence N89°53'W 596.71 feet to the point of beginning.

TOGETHER WITH THE FOLLOWING INGRESS-EGRESS EASEMENT:

A strip of land 30 feet in width and 1694.00 feet in length lying in Sections 21 and .28, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being 15 feet right and 15 feet left of the following described Centerline:

> Beginning at Sta. 0+00, a point which lies S89°21'54"W 1318.81 feet from the common quarter corner of said Sections 21 and 28; thence N63°46'19"E 82.32 feet to Sta. 0+82.32, a P.I. of 02°50'34" right, at Sta. 0+33.92 crossing the common line between said Section 21 and 28 at a point which lies S89°59'E 1349.13 feet from the common West corner of said Sections 21 and 28; thence N66°36'53"E 487.80 feet to Sta. 5+70.12, a P.I. of 06°22'13" left; thence N60°14'40"E 1058.30 feet to Sta. 16+28.42, a P.I. of 01°31'11" left; thence N58°43'29"E 65.58 feet to Sta. 16+94, a point which lies N12°54'59"E 794.77 feet from the common Quarter corner of said Sections 21 and 28.

Subject to reservations, restrictions and easements appearing of record.

Said easement is given for the purpose of drilling, constructing and maintaining upon the premises a monitor well or wells with which the Oil Conservation Division will use to assess and monitor contaminants below the surface, and for the purpose of routinely visiting, sampling and inspecting the aforementioned monitor wells following initial construction. Said easement shall terminate when the monitor wells are no needed for the purpose described at which time they shall be removed and the premises restored to its condition prior to the time this easement was granted.

Witness my hand and seal this _____ day of May, 2001.

_____
FRANK D. ELDGRIGE

_____
SHELLY L. ELDRIDGE

ACKNOWLEDGEMENTS

STATE OF NEW MEXICO)
)
COUNTY OF LEA)

The foregoing instrument was acknowledged before me this ____ day of May, 2001, by Frank D. Eldridge.

_____
Notary Public

My commission expires:

_____

STATE OF NEW MEXICO)
)
COUNTY OF LEA)

The foregoing instrument was acknowledged before me this ____ day of May, 2001, by Shelly L. Eldridge.

_____
Notary Public

My commission expires:

_____

OIL CONSERVATION DIV.
01 APR 16 PM 3:11

3462

WARRANTY DEED

LYMAN ARNSPIGER AND ETTA ARNSPIGER, aka ETTA P. ARNSPIGER husband and wife

for consideration paid grants to

FRANK D. ELDRIDGE AND SHELLY L. ELDRIDGE, husband and wife as joint tenants

whose address is

the following described real estate in LEA county, New Mexico

SEE ATTACHED EXHIBIT "A"

Subject to reservations, restrictions and easements appearing of record with warranty covenants.

WITNESS our hands and seals on 12/29/95

LYMAN ARNSPIGER

ETTA P. ARNSPIGER

STATE OF NEW MEXICO)
)ss
COUNTY OF LEA)

This instrument was acknowledged before me on 12/29/95,by **LYMAN ARNSPIGER AND ETTA ARNSPIGER, aka ETTA P. ARNSPIGER husband and wife**

Notary Public

My commission expires :_____

RETURN TO: GRANTEE

FOR SURFACE TITLE ONLY:

PARCEL 1
The Southeast Quarter of the Southeast Quarter (SE/4SE/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

PARCEL 2
The Southeast Quarter of the Southwest Quarter (SE/4SW/4) and the Southwest Quarter of the Southeast Quarter (SW/4SE/4) of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico
LESS AND EXCEPT
A tract of land situated in Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being further described as follows:
Beginning at a point on the North-South Quarter line which lies N00°01'25"E 775.02 feet from the South Quarter corner of said Section 21; thence N00°01'25"E 365.00 feet; thence S89°53'E 596.71 feet; thence S00°01'25"W 365.00 feet; thence N89°53'W 596.71 feet to the point of beginning.
and the following Ingress-Egress Easement
A strip of land 30 feet in width and 1694.00 feet in length lying in Sections 21 and 28, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being 15 feet right and 15 feet left of the following described centerline:
Beginning at Sta. 0+00, a point which lies S89°21'54"W 1318.81 feet from the common Quarter corner of said Sections 21 and 28; thence N63°46'19"E 82.32 feet to Sta. 0+82.32, a P.I. of 02°50'34" right, at Sta. 0+33.92 crossing the common line between said Section 21 and 28 at a point which lies S89°59'E 1349.13 feet from the common West corner of said Sections 21 and 28; thence N66°36'53"E 487.80 feet to Sta. 5+70.12, a P.I. of 06°22'13" left; thence N60°14'40"E 1058.30 feet to Sta. 16+28.42, a P.I. of 01°31'11" left; thence N58°43'29"E 65.58 feet to Sta. 16+94, a point which lies N12°54'59"E 794.77 feet from the common Quarter corner of said Sections 21 and 28.
LESS AND EXCEPT
A tract of land situated in Section 21, Township 19 South, Range 36 East, N.M.P.M., Lea County, New Mexico, being more particularly described as follows:
Beginning N89°59'W 1047.62 feet and N0°2'30"E 126.59 feet from the South Quarter corner of said Section 21; thence S66°48'55"W 295.34 feet; thence N0°2'30"E 1009.22 feet; thence N84°59'09"E 272.46 feet; thence S0°2'30"W 916.76 feet to the point of beginning.

PARCEL 3
The Northeast Quarter of the Northwest Quarter (NE/4NW/4) and the Northwest Quarter of the Northeast Quarter (NW/4NE/4) of Section 28, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

PARCEL 4
A tract of land situated in Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being further described as follows:
Beginning at a point on the North-South Quarter line which lies N00°01'25"E 775.02 feet from the South Quarter corner of said Section 21; thence N00°01'25"E 365.00 feet; thence S89°53'E 596.71 feet; thence S00°01'25"W 365.00 feet; thence N89°53'W 596.71 feet to the point of beginning.
and the following Ingress-Egress Easement
A strip of land 30 feet in width and 1694.00 feet in length lying in Sections 21 and 28, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being 15 feet right and 15 feet left of the following described centerline:
Beginning at Sta. 0+00, a point which lies S89°21'54"W 1318.81 feet from the common Quarter corner of said Sections 21 and 28; thence N63°46'19"E 82.32 feet to Sta. 0+82.32, a P.I. of 02°50'34" right, at Sta. 0+33.92 crossing the common line between said Section 21 and 28 at a point which lies S89°59'E 1349.13 feet from the common West corner of said Sections 21 and 28; thence N66°36'53"E 487.80 feet to Sta. 5+70.12, a P.I. of 06°22'13" left; thence N60°14'40"E 1058.30 feet to Sta. 16+28.42, a P.I. of 01°31'11" left; thence N58°43'29"E 65.58 feet to Sta. 16+94, a point which lies N12°54'59"E 794.77 feet from the common Quarter corner of said Sections 21 and 28.

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

April 2, 2001

C. Gene Samberson
Heidel, Samberson, Newell & Cox
P.O. Box 1599
Lovington, New Mexico 88260

Re: Temporary Easement for Investigation of the Oil Conservation Division

Dear Mr. Samberson,

Thank you for discussing this matter with me a few days ago. The Oil Conservation Division is endeavoring to determine the source of a pipeline leak so that abatement of the leak can begin. In order to do accomplish this, several monitor wells need to set and monitored. The impact to your client's property will consist of a brief disturbance while the wells are drilled, and periodic monitoring of the wells thereafter. Once the wells are no longer needed, they will be removed and the area restored. William Olson of this office can provide you with details of the proposed operation.

To gain access for these activities, I have drafted attached temporary easement. Please review the document and let me know whether it is acceptable. When you have a chance, I would appreciate receiving copies of the executed power of attorney and the order appointing the personal representative of Leonard Estate. As the personal representative has not yet been appointed, I know this may take some time.

Please give me a call at 476-3451 if you have any questions. Thank you for your assistance.

Sincerely,

Stephen C. Ross
Assistant General Counsel

TEMPORARY GRANT OF EASEMENT

JAMES H. FOLEY and MARK LEONARD, individually and as personal representative of the ESTATE OF KATHERINE LEONARD, tenants in common, grant to the NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES ("EMNRD") and its OIL CONSERVATION DIVISION ("OCD"), its agents, employees and contractors, a temporary and limited easement in, to, upon and over all that portion of the following described real estate in Lea County, New Mexico known as the "Eldridge Ranch" and located in the S/2, NE/4 of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, and the SE/4 and the SW/4 of Section 21, Township 19 South, Range 37 East, N.M.P.M., Lea County, New Mexico, together with reasonable access thereto.

Said easement is given for the limited purpose of drilling, constructing and maintaining upon the premises a monitor well or wells with which the Oil Conservation Division will use to assess and monitor contaminants below the surface, and for the purpose of routinely visiting, sampling and inspecting the aforementioned monitor wells following initial construction and for no other purpose. Said easement shall terminate when the monitor wells are no needed for the purpose described at which time they shall be removed and the premises restored to its condition prior to the time this easement was granted.

Witness our hands and seals this _____ day of April, 2001.

_____
JAMES H. FOLEY

_____
MARK LEONARD, individually and as personal representative of the Estate of Katherine Leonard

ACKNOWLEDGMENTS

STATE OF NEW MEXICO)
)
COUNTY OF LEA)

The foregoing instrument was acknowledged before me this ____ day of April, 2001, by James Foley.

_____
Notary Public

My commission expires:

_____

STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of April, 2001, by Mark Leonard, individually and as personal representative of the Estate of Katherine Leonard.

_____
Notary Public

My commission expires:

_____

IMPORTANT MESSAGE

For William Olson

Day 6/13/01 Time 10:44 A.M. P.M.

M Robert Atenucio (Hmed/Hwb)

Of

Phone 827-1558 X 1060
Area Code Number Extension

FAX MOBILE 670 8698
Area Code Number Extension

Telephoned		Returned your call		RUSH	
Came to see you		Please call		Special attention	
Wants to see you		Will call again		Caller on hold	

Message William:

If there are further

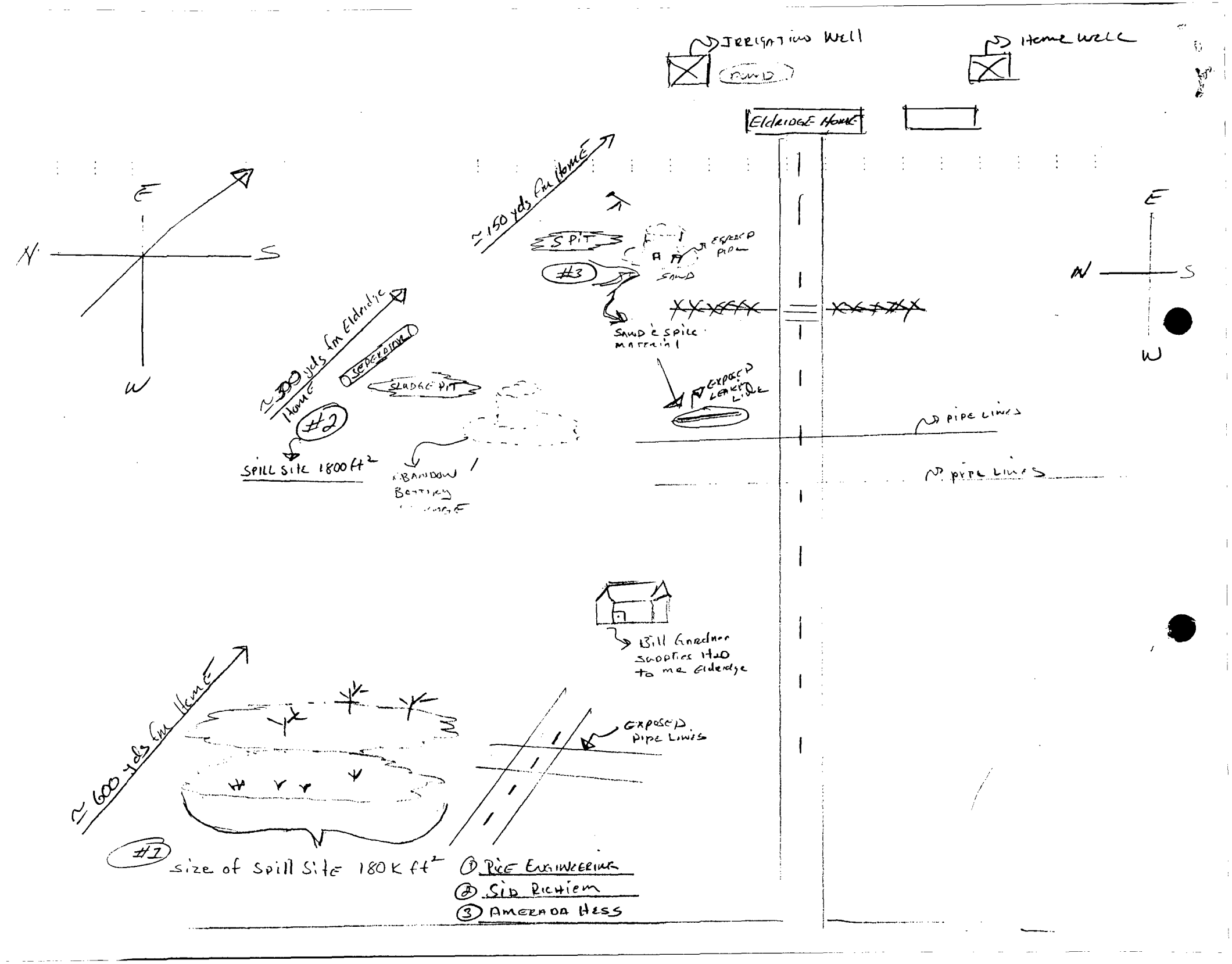
Questions Please Contact

Me @ 827-1558

Best Regards

Signed Bob

Universal office products 48023 LITHO IN U.S.A.


Irrigation Well
Pond
Home Well
Eldridge Home
E
N
S
W
≃ 150 yds fm Home
Spit
Exposed Pipe
Sand
#3
Sand & Spill Material
Exposed Leaking Line
≃ 300 yds fm Eldridge Home
Seperator
Sludge Pit
#2
Spill Site 1800 ft²
Abandon Battery
Pipe Lines
Pipe Lines
Bill Gardner supplies H2O to the Eldridge
≃ 600 yds fm Home
Exposed Pipe Lines
#1
size of Spill Site 180K ft²
① Rice Engineering
② Sid Richiem
③ Amerada Hess

STATE OF NEW MEXICO — DEPARTMENT OF HEALTH

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700

700 Camino de Salud, NE
[505] 841-2500

ORGANIC CHEMISTRY SECTION [505] 841-2570

REPORT TO CLIENT: ☐

Debbie Brinkerhoff
NMED
Hazardous Waste Bureau
2044 Galesteo
Santa Fe, NM 87502

SLD No.: OR- 200002257
REQUEST ID No.: 2025949
RECEIVED AT SLD: 10/26/00
SLD COPY USER 55840

SAMPLE COLLECTION: DATE: 10/26/00 TIME: 1100 BY: _____
SAMPLING LOCATION: IRRIGATION WELL *NOTE STRONG ODOR
SAMPLE MATRIX: Water REPORTING UNITS: µg/L

Remarks: Sample preserved with Mercuric Chloride;

EPA METHOD 8260 MASS SPECTROMETER VOLATILES BY PURGE AND TRAP

DATE EXTRACTED: N/A
DATE ANALYZED: 11/2/00 7 Days: Within EPA Analysis Time
SAMPLE VOL (ml): 0.05

ANALYSIS No.: OR- 200002257
SLD BATCH No.: 383
DILUTION FACTOR: 100.00
REQUEST ID No.: 2025949

SAMPLE PRESERVATION: Sample Temperature when received: 13 Degrees C.; pH =7

CAS #	ANALYTE NAME	CONC. (ug/L)	QUAL.	SDL
71-43-2	Benzene	4400		100.0
108-86-1	Bromobenzene		U	100.0
74-97-5	Bromochloromethane		U	100.0
75-27-4	Bromodichloromethane*		U	100.0
75-25-2	Bromoform*		U	100.0
74-83-9	Bromomethane		U	100.0
78-93-3	2-Butanone (MEK)		U	1000.0
104-51-8	n-Butylbenzene		U	100.0
135-98-8	sec-Butylbenzene		U	100.0
98-06-6	tert-Butylbenzene		U	100.0
1634-04-4	tert-Butyl methyl ether (MTBE)		U	1000.0
56-23-5	Carbon tetrachloride		U	100.0
108-90-7	Chlorobenzene (monochlorobenzene)		U	100.0
75-00-3	Chloroethane		U	100.0
67-66-3	Chloroform*		U	100.0
74-87-3	Chloromethane		U	100.0
95-49-8	2-Chlorotoluene		U	100.0
106-43-4	4-Chlorotoluene		U	100.0
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	100.0
124-48-1	Dibromochloromethane*		U	100.0
106-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	100.0
74-95-3	Dibromomethane		U	100.0
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	100.0
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	100.0
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	100.0
75-71-8	Dichlorodifluoromethane		U	100.0
75-34-3	1,1-Dichloroethane		U	100.0
107-06-2	1,2-Dichloroethane		U	100.0
75-35-4	1,1-Dichloroethene		U	100.0
156-59-2	cis-1,2-Dichloroethene		U	100.0
156-60-5	trans-1,2-Dichloroethene		U	100.0
78-87-5	1,2-Dichloropropane		U	100.0
142-28-9	1,3-Dichloropropane		U	100.0
594-20-7	2,2-Dichloropropane		U	100.0
563-58-6	1,1-Dichloropropene		U	100.0
1006-10-15	cis-1,3-Dichloropropene		U	100.0
1006-10-26	trans-1,3-Dichloropropene		U	100.0
100-41-4	Ethylbenzene	120		100.0
87-68-3	Hexachlorobutadiene		U	100.0
98-82-8	Isopropylbenzene		U	100.0
99-87-6	4-Isopropyltoluene		U	100.0
75-09-2	Methylene chloride (Dichloromethane)		U	200.0
91-20-3	Naphthalene		U	100.0

103-65-1	Propylbenzene		U	100.0
100-42-5	Styrene		U	100.0
630-20-6	1,1,1,2-Tetrachloroethane		U	100.0
79-34-5	1,1,2,2-Tetrachloroethane		U	100.0
127-18-4	Tetrachloroethene		U	100.0
109-99-9	Tetrahydrofuran (THF)		U	1000.0
108-88-3	Toluene	4100		100.0
87-61-6	1,2,3-Trichlorobenzene		U	100.0
120-82-1	1,2,4-Trichlorobenzene		U	100.0
71-55-6	1,1,1-Trichloroethane		U	100.0
79-00-5	1,1,2-Trichloroethane		U	100.0
79-01-6	Trichloroethene		U	100.0
75-69-4	Trichlorofluoromethane		U	100.0
96-18-4	1,2,3-Trichloropropane		U	100.0
95-63-6	1,2,4-Trimethylbenzene		U	100.0
108-67-8	1,3,5-Trimethylbenzene		U	100.0
75-01-4	Vinyl Chloride		U	100.0
95-47-6	o-Xylene*	120		100.0
N/A	p- & m-Xylenes*	386		100.0
N/A	*Total Xylenes*	506		100.0
N/A	*Total Trihalomethanes*	0.0	U	100.0

Laboratory Remarks: This sample was diluted 1:100. As stated above, this sample was preserved with mercuric chloride.

I certify that this sample's evidentiary seal was intact prior to the time of analysis.

Seal opened for purpose of analysis on date: 11/2/00 **, time:** 11:54 am

Analyst: Cyndi Reynolds
name

CAS #	Tentatively Identified Compound Name	% Match	R.T.	Approx. Conc.
110-82-7	Cyclohexane	97.3%	5.37	2560 µg/L
96-37-7	Methylcyclopentane	96.5%	4.28	1490 µg/L
108-87-2	Methylcyclohexane	95.2%	7.92	1190 µg/L
287-92-3	Cyclopentane	95.5%	2.88	485 µg/L
110-54-3	Hexane	98.0%	3.10	465 µg/L
96-14-0	3-Methylpentane	94.4%	3.10	425 µg/L
4388-87-8	2,5-Dimethyl-3,4-hexanedione	84.5%	2.83	300 µg/L

LABORATORY BATCH QUALITY CONTROL SUMMARY

	SURROGATE COMPOUNDS	CONCENTRATION	% RECOVERY
SURROGATE RECOVERIES:	Dibromofluoromethane	8.9	89%
	1,2-Dichloroethane-d4	9.1	91%
	Toluene-d8	10.3	103%
	4-Bromofluorobenzene	9.0	90%

LABORATORY FORTIFIED BLANK RECOVERIES

The percent recoveries for compounds in the batch spike were within 80% to 120% with the exception of the compound(s) listed below:

COMPOUND	CONCENTRATION (µg/L)	% RECOVERY
No Exceptions		

LABORATORY BLANKS

No target compounds were detected above the sample detection limit in laboratory blank with the exception of the compound(s) listed below:

COMPOUND	CONCENTRATION (µg/L)
No Exceptions	

Analyst: Cyndi Reynolds **QC Approved By:** Timothy Chapman

DEFINITIONS

**	Concentration Exceeds EPA's allowable Maximum Contamination Level
CAS#	Chemical Abstract Services Number - Unique number to help identify analytes listed by different names
CONC.	Concentration (ug/L) of analyte actually detected in the sample
QUAL	Qualifier of analytical results as follows:
	B Analyte was detected in laboratory blank
	E Analyte was detected at a level above the concentration of the calibration curve.
	J Analyte was detected at a level below which an accurate quanitation can be given (~5 * SDL)
	U No analyte was detected above the Sample Detection Limit.
SDL	Sample Detection Limit - The lowest concentration which can be differentiated from Zero with 99% confidence taking sample size (compositing) into account.
ug/L	Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

1 Request ID No. **ORGAN[illegible] CHEMISTRY ANALYTICAL REQ[illegible]ST FORM** 2 SLD's Accession No.

Request ID No. 025949-C

OR

Scientific Laboratory Division
700 Camino de Salud, NE (P.O. Box 4700)
Albuquerque, NM 87106 (87196-4700)
Phone: 505-841-2500/-2570/-2566

OR

OR0002257

3 User Code: ______ | Date & Time of Receipt at SLD: 00 OCT 26 PM 4:42 | 4 Sample Priority: 2 (If 1 or 2 call SLD)

5 Submitter Code: ____ WSS Code: NM35 - ______ User's Site ID: ______ 6 Sample Temp. Receipt @ SLD: 3 °C

7 Facility or WSS Name: ELDRIDGE

Facility/WSS Location: If No WSS Code Complete 8, 9 & 10 | 8 County: LEA | 9 City: Monument | 10 State: or CHANGE NM 70

11 Sampling Location: IRRIGATION WELL *NOTE STRONG ODOR

12 Sample Collection: On: 10/26/00 (Date MM/DD/YY) By: ______ (Last Name)
At: 11:00 A.M (Time 2400 Hour Clock) ______ (First Name)

13 Sample Info. Contact: Ph: (505) 877-1558 x1007 If not collector, per box 12, Please print name here: Debbie Brinkerhoff

14 *Reports are mailed to the address specified by the Submitter Code and WSS Code (when present). However, if one of the following applies, please check ☒ appropriate boxes below and complete address form.*

☐ Send additional Report to: → Name: ______
☐ New Address for: → Address: ______
☐ Submitter
☐ WSS / Client City: ______ State: ______ Zip: ______

15 **Sampling Documentation:** *(Check)*
☐ Confirmation ☐ NMED Monitoring
☐ Resample ☐ Raw Water
☐ Split w/ Facility ☐ Finished Water
☐ Grab Sample
☐ Other: ______

16a **Field Data:** *(When appropriate)*
☐ Sample is Chlorinated
Chlorine Residual: ______ mG/L
Conductivity: ______ uMhos/cm
Sulfate: ______ mG/L
Temperature on Collection: ______ °C

16b **Field Remarks:** *(Optional)*

SDWA Comments:
☐ Compliance
SDWA Compositing:
☐ No Compositing
☐ Within This System Only
☐ Within All Systems

17 **Sample Type:** *(Check ☒ only one)* ☐ Water ☐ Vapor ☐ Tissue ☐ Other: ☐ Liquid: ☐ Soil ☐ Plant ☐ Blood ☐ Solid:

18 **Preservation:** *(Check ☒ all that apply)* ☐ Preserved with HCl to pH < 2 ☐ No Preservation ☐ Stored at 4°C ☒ Other: $HgCl_2$

Number of Containers Submitted: Bottles: Vials: 2 Jars:

19 **Analyses Requested:** *Please Check ☒ the appropriate box(es) below to indicate your analytical request(s):*

Volatile Analyses:
☐-(754) Aromatic & Halogenated Volatiles (EPA 8021)
☒-(765) Mass Spectrometer Volatiles (EPA 8260 or 524.2)
☐-(764) Appendix IX Mass Spectrometer VOCs (EPA 8260)
☐-(774) Volatile Organic Compounds [VOC's] (EPA 502.2)
☐-(766) SDWA Trihalomethanes (EPA 502.2)

Remarks or Other Specific Compounds or Classes:
☐-(__) ______
☐-(__) ______

Special Extractions:
☐-(784) TCLP Extraction, Volatiles (Method 1311)
☐-(785) TCLP Extraction, Semivolatiles (Method 1311)
☐-(786) Explosives Screen (Aberdeen Method)

Semivolatile Analyses:
☐-(789) Drinking Water Semivolatile Analyses (Indented list)
☐-(775) EDB, DBCP & TCP (EPA 504.1)
☐-(758) Acid Herbicides (EPA 515.2)
☐-(772) Carbamates (EPA 531.1)
☐-(781) Glyphosate (EPA 547)
☐-(782) Endothall (EPA 548.1)
☐-(783) Diquat (EPA 549.1)
☐-(788) Synthetic Organic Compounds (SOCs) (EPA 525/508)
☐-(771) Haloacetic Acids in Drinking Water (EPA 552.2)
☐-(750) Hydrocarbon Fuel Screen, GRO (Modified EPA 8015)
☐-(751) Hydrocarbon Fuel Screen, GRO/DRO (Mod. EPA 8015)
☐-(752) Hydrocarbon Fuel Screen, DRO (Mod. EPA 8015)
☐-(755) Base/Neutral Semivolatiles (No Phenols) (EPA 8270)
☐-(756) Base/Neutral/Acids Semivolatiles (EPA 625/8270)
☐-(759) Polychlorinated Biphenyls (PCBs) (EPA 8082)
☐-(760) Organochlorine Pesticides (EPA 608/8081)

Organic Section Sample Collection Guidelines

(SLD-#) & Test Description	Approx. No. of Analytes Reported	Maximum Holding Time (days)	Sample Container For Water	General Preservation Footnotes	Preservation Comments
VOLATILE ORGANIC COMPOUNDS:					
(754) Aromatic and Halogenated Volatiles	63	14	40 mL Glass Vial in duplicate	A, B, C	
(765 and 764) Mass Spectrometer VOCs by GC/MS	63+	14	40 mL Glass Vial in duplicate	A, B, C	
(774) SDWA Volatile Organic Compounds, VOC-1's	63	14	40 mL Glass Vial in duplicate	A, B, C	Sample should be Unchlorinated. If chlorinated, ask for Ascorbic acid preservative.
(766) SDWA Trihalomethanes	4	14	40 mL Glass Vial in duplicate	B, C, D	
SEMIVOLATILE ORGANIC COMPOUNDS:					
(775) EDB, DBCP & TCP	3	14	40 mL Glass Vial in duplicate	B, C, D	Do Not Acidify
(758) Acid Herbicides	15	14	250 mL Amber Glass in triplicate	A, C, E	After sampling, wait one minute before adding HCl to pH of 2
(772) Carbamate Pesticides	10	28	40 mL Glass Vial	C, D	Sample bottles must be refrigerated before and after use.
(781) Glyphosate	1	14	40 mL Amber Glass Vial	C, E	
(782) Endothall	1	7	40 mL Glass Vial in duplicate	C, E	
(783) Diquat	1	7	1 L Amber Plastic	C, E	After sampling, add H2SO4 to pH of 2 if biologically active.
(788) Semivolatile Organic Compounds by GC/MS	75	14	1 L Amber Glass in duplicate	A, C, E	After sampling, wait one minute before adding HCl to pH of 2
(751) Hydrocarbon Fuel Screen (TPH and Hydrocarbon Range ID)	N/A	14	DRO: 1 L Amber Glass in duplicate	GRO: A, B, C DRO: C	Note: Also provide 40 mL duplicate Glass Vials for GRO
(755) Base/Neutral Semivolatiles Organic Compounds by GC/MS	66	7	1 L Amber Glass in duplicate	C	
(756) Base/Neutral /Acid Semivolatile Organic Compounds by GC/MS	88	7	1 L Amber Glass in duplicate	C	
(760) Organochlorine Pesticides and PCB's	39	7	1 L Amber Glass in duplicate	C	

Preservation Footnotes:

A = Reduce pH to 2 with Hydrochloric Acid, HCl.
B = Fill vials completely; i.e. No Air Bubble.
C = Cool samples to 4°C after collection.
D = As supplied by SLD, sample containers contain preservatives (check container label); Do NOT Rinse Container.
E = As supplied, kits can be used for either Chlorinated systems or Unchlorinated systems. Since dechlorinating agents are added by the lab, do not rinse the bottles. After sample collection, add the acid indicated for 758, 788, and, if necessary, 783 samples.

***** Please Use Chain-Of-Custody Form Only When Requirements Mandate *****

Single Sample **Chain-Of-Custody Form** *Single Sample*

We, the undersigned, certify that on 10/26/00 (Date) at 1:20pm (Time) the sample identified on the container(s) and reverse of this request form by "*Request ID No.:* _____" was transferred with evidentiary seal(s):

(check applicable box) ☐ not present, ☐ present & intact, ☐ present & damaged.

Released by: _____ (Signature) & Received by: Roy J. Carson (Signature)

Additional Transfer, If Applicable:

We, the undersigned, certify that on _____ (Date) at _____ (Time) the sample identified on the container(s) and reverse of this request form by "*Request ID No.:* _____" was transferred with evidentiary seal(s):

(check applicable box) ☐ not present, ☐ present & intact, ☐ present & damaged.

Released by: _____ (Signature) & Received by: _____ (Signature)

STATE OF NEW MEXICO — DEPARTMENT OF HEALTH

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700

700 Camino de Salud, NE
[505] 841-2500

ORGANIC CHEMISTRY SECTION [505] 841-2570

REPORT TO CLIENT: ☐

Debbie Brinkerhoff
NMED
Hazardous Waste Bureau
2044 Galesteo
Santa Fe, NM 87502

SLD No.: OR- 200002256

REQUEST ID No.: 2025948
RECEIVED AT SLD: 10/26/00
SLD COPY — USER: 55840

SAMPLE COLLECTION: DATE: 10/26/00 TIME: 1045 BY:
SAMPLING LOCATION: HOUSE WELL
SAMPLE MATRIX: Water REPORTING UNITS: µg/L

Remarks: Sample preserved with Mercuric Chloride;

EPA METHOD 8260 MASS SPECTROMETER VOLATILES BY PURGE AND TRAP

DATE EXTRACTED: N/A
DATE ANALYZED: 11/2/00 (7 Days: Within EPA Analysis Time)
SAMPLE VOL (ml): 0.25

ANALYSIS No.: OR- 200002256

SLD BATCH No.: 383
DILUTION FACTOR: 20.00
REQUEST ID No.: 2025948

SAMPLE PRESERVATION: Sample Temperature when received: 13 Degrees C.; pH =7

CAS #	ANALYTE NAME	CONC. (ug/L)	QUAL.	SDL
71-43-2	Benzene	2510		20.0
108-86-1	Bromobenzene		U	20.0
74-97-5	Bromochloromethane		U	20.0
75-27-4	Bromodichloromethane*		U	20.0
75-25-2	Bromoform*		U	20.0
74-83-9	Bromomethane		U	20.0
78-93-3	2-Butanone (MEK)		U	200.0
104-51-8	n-Butylbenzene		U	20.0
135-98-8	sec-Butylbenzene		U	20.0
98-06-6	tert-Butylbenzene		U	20.0
1634-04-4	tert-Butyl methyl ether (MTBE)		U	200.0
56-23-5	Carbon tetrachloride		U	20.0
108-90-7	Chlorobenzene (monochlorobenzene)		U	20.0
75-00-3	Chloroethane		U	20.0
67-66-3	Chloroform*		U	20.0
74-87-3	Chloromethane		U	20.0
95-49-8	2-Chlorotoluene		U	20.0
106-43-4	4-Chlorotoluene		U	20.0
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	20.0
124-48-1	Dibromochloromethane*		U	20.0
106-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	20.0
74-95-3	Dibromomethane		U	20.0
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	20.0
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	20.0
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	20.0
75-71-8	Dichlorodifluoromethane		U	20.0
75-34-3	1,1-Dichloroethane		U	20.0
107-06-2	1,2-Dichloroethane		U	20.0
75-35-4	1,1-Dichloroethene		U	20.0
156-59-2	cis-1,2-Dichloroethene		U	20.0
156-60-5	trans-1,2-Dichloroethene		U	20.0
78-87-5	1,2-Dichloropropane		U	20.0
142-28-9	1,3-Dichloropropane		U	20.0
594-20-7	2,2-Dichloropropane		U	20.0
563-58-6	1,1-Dichloropropene		U	20.0
1006-10-15	cis-1,3-Dichloropropene		U	20.0
1006-10-26	trans-1,3-Dichloropropene		U	20.0
100-41-4	Ethylbenzene		U	20.0
87-68-3	Hexachlorobutadiene		U	20.0
98-82-8	Isopropylbenzene		U	20.0
99-87-6	4-Isopropyltoluene		U	20.0
75-09-2	Methylene chloride (Dichloromethane)		U	40.0
91-20-3	Naphthalene		U	20.0

103-65-1	Propylbenzene		U	20.0
100-42-5	Styrene		U	20.0
630-20-6	1,1,1,2-Tetrachloroethane		U	20.0
79-34-5	1,1,2,2-Tetrachloroethane		U	20.0
127-18-4	Tetrachloroethene		U	20.0
109-99-9	Tetrahydrofuran (THF)		U	200.0
108-88-3	Toluene		U	20.0
87-61-6	1,2,3-Trichlorobenzene		U	20.0
120-82-1	1,2,4-Trichlorobenzene		U	20.0
71-55-6	1,1,1-Trichloroethane		U	20.0
79-00-5	1,1,2-Trichloroethane		U	20.0
79-01-6	Trichloroethene		U	20.0
75-69-4	Trichlorofluoromethane		U	20.0
96-18-4	1,2,3-Trichloropropane		U	20.0
95-63-6	1,2,4-Trimethylbenzene		U	20.0
108-67-8	1,3,5-Trimethylbenzene		U	20.0
75-01-4	Vinyl Chloride		U	20.0
95-47-6	o-Xylene*	6.0	J	20.0
N/A	p- & m-Xylenes*	4.4	J	20.0
N/A	*Total Xylenes*	10.4	J	20.0
N/A	*Total Trihalomethanes*	0.0	U	20.0

Laboratory Remarks: This sample was diluted 1:20 orgionally then 1:100 11/3/00 for benzene concentration. As noted above, this sample was preserved with mercuric chloride.

I certify that this sample's evidentiary seal was intact prior to the time of analysis.

Seal opened for purpose of analysis on date: 11/2/00, time: 11:54 am

Analyst: Cyndi Reynolds
name

The Following Compound(s) Were Tentatively Identified by GC/MS (by Library Match of Mass Spectrum)

CAS #	Tentatively Identified Compound Name	% Match	R.T.	Approx. Conc.
110-82-7	Chlorohexane	97.6%	5.37	400 µg/L
96-37-7	Methylcyclopentane	96.6%	4.28	220 µg/L
287-92-3	Cyclopentane	96.3%	2.88	110 µg/L
2415-72-7	Propylcyclopentane	89.8%	5.52	90 µg/L

LABORATORY BATCH QUALITY CONTROL SUMMARY

	SURROGATE COMPOUNDS	CONCENTRATION	% RECOVERY
SURROGATE RECOVERIES:	Dibromofluoromethane	9.0	90%
	1,2-Dichloroethane-d4	9.1	91%
	Toluene-d8	10.5	105%
	4-Bromofluorobenzene	9.0	90%

LABORATORY FORTIFIED BLANK RECOVERIES

The percent recoveries for compounds in the batch spike were within 80% to 120% with the exception of the compound(s) listed below:

COMPOUND — CONCENTRATION (µg/L) — % RECOVERY

No Exceptions

LABORATORY BLANKS

No target compounds were detected above the sample detection limit in laboratory blank with the exception of the compound(s) listed below:

COMPOUND — CONCENTRATION (µg/L)

No Exceptions

Analyst: Cyndi Reynolds **QC Approved By:** Timothy Chapman

DEFINITIONS

- ****** Concentration Exceeds EPA's allowable Maximum Contamination Level
- **CAS#** Chemical Abstract Services Number - Unique number to help identify analytes listed by different names
- **CONC.** Concentration (ug/L) of analyte actually detected in the sample
- **QUAL** Qualifier of analytical results as follows:
  - B Analyte was detected in laboratory blank
  - E Analyte was detected at a level above the concentration of the calibration curve.
  - J Analyte was detected at a level below which an accurate quanitation can be given (~5 * SDL)
  - U No analyte was detected above the Sample Detection Limit.
- **SDL** Sample Detection Limit - The lowest concentration which can be differentiated from Zero with 99% confidence taking sample size (compositing) into account.
- **ug/L** Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

Request ID No. | **ORGANIC CHEMISTRY ANALYTICAL REQUEST FORM** | SLD's Accession No.

Request ID No. 025948-C

OR

Scientific Laboratory Division
700 Camino de Salud, NE (P.O. Box 4700)
Albuquerque, NM 87106 (87196-4700)
Phone: 505-841-2500/-2570/-2566

OR

OR0002256

[3] User Code: 55840 | Date & Time of Receipt at SLD: 00 OCT 26 PM 4:42 | [4] Sample Priority: 2 (1 of 2) call SLD

[5] Submitter Code: | WSS Code: NM35- | User's Site ID: | [6] Sample Temp. Receipt @ SLD: 13 °C

[7] Facility or WSS Name: HOUSE WELL GLORIETA

Facility/WSS Location: *If No WSS Code Complete 8, 9 & 10* | [8] County: LEA | [9] City: Monument | [10] State: *or CHANGE* NM TO

[11] Sampling Location: HOUSE WELL

[12] Sample Collection: On: 10 / 26 / 00 (Date MM / DD / YY) By: (Last Name) (First Name)

At: 10 : 45 AM (Time 24:00 Hour Clock)

[13] Sample Info. Contact: Ph: (505) - 827 - 1558 x1007 | If not collector, per box 12, Please print name here: Debbie Brinkerhoff

[14] *Reports are mailed to the address specified by the Submitter Code and WSS Code (when present). However, if one of the following applies, please check ☒ appropriate boxes below and complete address form.*

☐ Send additional Report to: ——→

☐ New Address for:
☐ Submitter
☐ WSS / Client

Name: _____

Address: _____

City: _____ *State:* _____ *Zip:* _____

[15] **Sampling Documentation:** *(Check)*
☐ Confirmation ☐ NMED Monitoring
☐ Resample ☐ Raw Water
☐ Split w/ Facility ☐ Finished Water
☐ Grab Sample
☐ Other: _____

[16a] **Field Data:** *(When appropriate)*
☐ Sample is Chlorinated
Chlorine Residual: _____ mG/L
Conductivity: _____ uMhos/cm
Sulfate: _____ mG/L
Temperature on Collection: _____ °C

[16b] **Field Remarks:** *(Optional)* _____

SDWA Comments:
☐ Compliance
SDWA Compositing:
☐ No Compositing
☐ Within This System Only
☐ Within All Systems

[17] **Sample Type:** *(Check ☒ only one)*
☐ Water ☐ Vapor ☐ Tissue ☐ Other: ☐ Liquid:
☐ Soil ☐ Plant ☐ Blood ☐ Solid:

[18] **Preservation:** *(Check ☒ all that apply)*
☐ Preserved with HCl to pH < 2 ☐ No Preservation
☐ Stored at 4°C ☒ Other: HgCl2

Number of Containers Submitted: Bottles: Vials: 2 Jars:

[19] **Analyses Requested:** *Please Check ☒ the appropriate box(es) below to indicate your analytical request(s);*

Volatile Analyses:
☐-(754) Aromatic & Halogenated Volatiles (EPA 8021)
☒-(765) Mass Spectrometer Volatiles (EPA 8260 or 524.2)
☐-(764) Appendix IX Mass Spectrometer VOCs (EPA 8260)
☐-(774) Volatile Organic Compounds [VOC's] (EPA 502.2)
☐-(766) SDWA Trihalomethanes (EPA 502.2)

Remarks or Other Specific Compounds or Classes:
☐-(__) _____
☐-(__) _____

Special Extractions:
☐-(784) TCLP Extraction, Volatiles (Method 1311)
☐-(785) TCLP Extraction, Semivolatiles (Method 1311)
☐-(786) Explosives Screen (Aberdeen Method)

Semivolatile Analyses:
☐-(789) Drinking Water Semivolatile Analyses (Indented list)
☐-(775) EDB, DBCP & TCP (EPA 504.1)
☐-(758) Acid Herbicides (EPA 515.2)
☐-(772) Carbamates (EPA 531.1)
☐-(781) Glyphosate (EPA 547)
☐-(782) Endothall (EPA 548.1)
☐-(783) Diquat (EPA 549.1)
☐-(788) Synthetic Organic Compounds (SOCs) (EPA 525/508)
☐-(771) Haloacetic Acids in Drinking Water (EPA 552.2)
☐-(750) Hydrocarbon Fuel Screen, GRO (Modified EPA 8015)
☐-(751) Hydrocarbon Fuel Screen, GRO/DRO (Mod. EPA 8015)
☐-(752) Hydrocarbon Fuel Screen, DRO (Mod. EPA 8015)
☐-(755) Base/Neutral Semivolatiles (No Phenols) (EPA 8270)
☐-(756) Base/Neutral/Acids Semivolatiles (EPA 625/8270)
☐-(759) Polychlorinated Biphenyls (PCBs) (EPA 8082)
☐-(760) Organochlorine Pesticides (EPA 608/8081)

Organic Section Sample Collection Guidelines

(SLD-#) & Test Description	Approx. No. of Analytes Reported	Maximum Holding Time (days)	Sample Container For Water	General Preservation Footnotes	Preservation Comments
VOLATILE ORGANIC COMPOUNDS:					
(754) Aromatic and Halogenated Volatiles	63	14	40 mL Glass Vial in duplicate	A, B, C	
(765 and 764) Mass Spectrometer VOCs by GC/MS	63+	14	40 mL Glass Vial in duplicate	A, B, C	
(774) SDWA Volatile Organic Compounds, VOC-1's	63	14	40 mL Glass Vial in duplicate	A, B, C	Sample should be Unchlorinated. If chlorinated, ask for Ascorbic acid preservative.
(766) SDWA Trihalomethanes	4	14	40 mL Glass Vial in duplicate	B, C, D	
SEMIVOLATILE ORGANIC COMPOUNDS:					
(775) EDB, DBCP & TCP	3	14	40 mL Glass Vial in duplicate	B, C, D	Do Not Acidify
(758) Acid Herbicides	15	14	250 mL Amber Glass in triplicate	A, C, E	After sampling, wait one minute before adding HCl to pH of 2
(772) Carbamate Pesticides	10	28	40 mL Glass Vial	C, D	Sample bottles must be refrigerated before and after use.
(781) Glyphosate	1	14	40 mL Amber Glass Vial	C, E	
(782) Endothall	1	7	40 mL Glass Vial in duplicate	C, E	
(783) Diquat	1	7	1 L Amber Plastic	C, E	After sampling, add H2SO4 to pH of 2 if biologically active.
(788) Semivolatile Organic Compounds by GC/MS	75	14	1 L Amber Glass in duplicate	A, C, E	After sampling, wait one minute before adding HCl to pH of 2
(751) Hydrocarbon Fuel Screen (TPH and Hydrocarbon Range ID)	N/A	14	DRO: 1 L Amber Glass in duplicate	GRO: A, B, C DRO: C	Note: Also provide 40 mL duplicate Glass Vials for GRO
(755) Base/Neutral Semivolatiles Organic Compounds by GC/MS	66	7	1 L Amber Glass in duplicate	C	
(756) Base/Neutral /Acid Semivolatile Organic Compounds by GC/MS	88	7	1 L Amber Glass in duplicate	C	
(760) Organochlorine Pesticides and PCB's	39	7	1 L Amber Glass in duplicate	C	

Preservation Footnotes:

A = Reduce pH to 2 with Hydrochloric Acid, HCl.
B = Fill vials completely; i.e. No Air Bubble.
C = Cool samples to 4°C after collection.
D = As supplied by SLD, sample containers contain preservatives (check container label); Do NOT Rinse Container.
E = As supplied, kits can be used for either Chlorinated systems or Unchlorinated systems. Since dechlorinating agents are added by the lab, do not rinse the bottles. After sample collection, add the acid indicated for 758, 788, and, if necessary, 783 samples.

***** Please Use Chain-Of-Custody Form Only When Requirements Mandate *****

Single Sample **Chain-Of-Custody Form** *Single Sample*

We, the undersigned, certify that on 10/26/00 (Date) at 1:20 pm (Time) the sample identified on the container(s) and reverse of this request form by "*Request ID No.:* _____" was transferred with evidentiary seal(s):

(check applicable box) ☐ not present, ☐ present & intact, ☐ present & damaged.

Released by: T C Shryock (Signature) & Received by: Ron Gibson (Signature)

Additional Transfer, If Applicable:

We, the undersigned, certify that on Ron Gibson (Date) at 2:10 (Time) the sample identified on the container(s) and reverse of this request form by "*Request ID No.:* _____" was transferred with evidentiary seal(s):

(check applicable box) ☐ not present, ☐ present & intact, ☐ present & damaged.

Released by: _____ (Signature) & Received by: _____ (Signature)

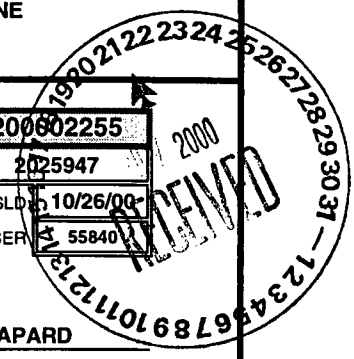
STATE OF NEW MEXICO — DEPARTMENT OF HEALTH

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700

700 Camino de Salud, NE
[505] 841-2500

ORGANIC CHEMISTRY SECTION [505] 841-2570



REPORT TO CLIENT: ☐

Debbie Brinkerhoff
NMED
Hazardous Waste Bureau
2044 Galesteo
Santa Fe, NM 87502

SLD No.: OR- 200002255
REQUEST ID No.: 2025947
RECEIVED AT SLD: 10/26/00
SLD COPY USER: 55840

SAMPLE COLLECTION: DATE: 10/26/00 TIME: 1025 BY: SHAPARD
SAMPLING LOCATION: TAP WATER KITCHEN
SAMPLE MATRIX: Water REPORTING UNITS: µg/L

Remarks: Sample preserved with Mercuric Chloride;

EPA METHOD 8260 MASS SPECTROMETER VOLATILES BY PURGE AND TRAP

DATE EXTRACTED: N/A
DATE ANALYZED: 11/2/00 7 Days: Within EPA Analysis Time
SAMPLE VOL (ml): 0.25

ANALYSIS No.: OR- 200002255
SLD BATCH No.: 383
DILUTION FACTOR: 20.00
REQUEST ID No.: 2025947

SAMPLE PRESERVATION: Sample Temperature when received: 13 Degrees C.; pH =7

CAS #	ANALYTE NAME	CONC. (ug/L)	QUAL.	SDL
71-43-2	Benzene	2810		20.0
108-86-1	Bromobenzene		U	20.0
74-97-5	Bromochloromethane		U	20.0
75-27-4	Bromodichloromethane*		U	20.0
75-25-2	Bromoform*		U	20.0
74-83-9	Bromomethane		U	20.0
78-93-3	2-Butanone (MEK)		U	200.0
104-51-8	n-Butylbenzene		U	20.0
135-98-8	sec-Butylbenzene		U	20.0
98-06-6	tert-Butylbenzene		U	20.0
1634-04-4	tert-Butyl methyl ether (MTBE)		U	200.0
56-23-5	Carbon tetrachloride		U	20.0
108-90-7	Chlorobenzene (monochlorobenzene)		U	20.0
75-00-3	Chloroethane		U	20.0
67-66-3	Chloroform*		U	20.0
74-87-3	Chloromethane		U	20.0
95-49-8	2-Chlorotoluene		U	20.0
106-43-4	4-Chlorotoluene		U	20.0
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	20.0
124-48-1	Dibromochloromethane*		U	20.0
106-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	20.0
74-95-3	Dibromomethane		U	20.0
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	20.0
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	20.0
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	20.0
75-71-8	Dichlorodifluoromethane		U	20.0
75-34-3	1,1-Dichloroethane		U	20.0
107-06-2	1,2-Dichloroethane		U	20.0
75-35-4	1,1-Dichloroethene		U	20.0
156-59-2	cis-1,2-Dichloroethene		U	20.0
156-60-5	trans-1,2-Dichloroethene		U	20.0
78-87-5	1,2-Dichloropropane		U	20.0
142-28-9	1,3-Dichloropropane		U	20.0
594-20-7	2,2-Dichloropropane		U	20.0
563-58-6	1,1-Dichloropropene		U	20.0
1006-10-15	cis-1,3-Dichloropropene		U	20.0
1006-10-26	trans-1,3-Dichloropropene		U	20.0
100-41-4	Ethylbenzene		U	20.0
87-68-3	Hexachlorobutadiene		U	20.0
98-82-8	Isopropylbenzene		U	20.0
99-87-6	4-Isopropyltoluene		U	20.0
75-09-2	Methylene chloride (Dichloromethane)		U	40.0
91-20-3	Naphthalene		U	20.0

103-65-1	Propylbenzene		U	20.0
100-42-5	Styrene		U	20.0
630-20-6	1,1,1,2-Tetrachloroethane		U	20.0
79-34-5	1,1,2,2-Tetrachloroethane		U	20.0
127-18-4	Tetrachloroethene		U	20.0
109-99-9	Tetrahydrofuran (THF)		U	200.0
108-88-3	Toluene		U	20.0
87-61-6	1,2,3-Trichlorobenzene		U	20.0
120-82-1	1,2,4-Trichlorobenzene		U	20.0
71-55-6	1,1,1-Trichloroethane		U	20.0
79-00-5	1,1,2-Trichloroethane		U	20.0
79-01-6	Trichloroethene		U	20.0
75-69-4	Trichlorofluoromethane		U	20.0
96-18-4	1,2,3-Trichloropropane		U	20.0
95-63-6	1,2,4-Trimethylbenzene		U	20.0
108-67-8	1,3,5-Trimethylbenzene		U	20.0
75-01-4	Vinyl Chloride		U	20.0
95-47-6	o-Xylene*	6.2	J	20.0
N/A	p- & m-Xylenes*		U	20.0
N/A	*Total Xylenes*	6.2	J	20.0
N/A	*Total Trihalomethanes*	0.0	U	20.0

Laboratory Remarks: This sample was diluted 1:20 origionally then 1:100 11/3/00 for benzene concentration. As noted above, this sample waspreserved with mercuric chloride.

I certify that this sample's evidentiary seal was intact prior to the time of analysis.

Seal opened for purpose of analysis on date: 11/2/00 **, time:** 11:54 am

Analyst: Cyndi Reynolds
name

The Following Compound(s) Were Tentatively Identified by GC/MS (by Library Match of Mass Spectrum)

CAS #	Tentatively Identified Compound Name	% Match	R.T.	Approx. Conc.
110-82-7	Cyclohexane	97.3%	5.37	380 µg/L
96-37-7	methylcyclopentane	96.5%	4.28	190 µg/L
96-14-0	3-Methylpentane	92.2%	3.10	130 µg/L
287-92-3	Cyclopentane	95.5%	2.88	110 µg/L

LABORATORY BATCH QUALITY CONTROL SUMMARY

SURROGATE RECOVERIES:	SURROGATE COMPOUNDS	CONCENTRATION	% RECOVERY
	Dibromofluoromethane	9.1	91%
	1,2-Dichloroethane-d4	9.0	90%
	Toluene-d8	10.4	104%
	4-Bromofluorobenzene	8.9	89%
LABORATORY FORTIFIED BLANK RECOVERIES	The percent recoveries for compounds in the batch spike were within 80% to 120% with the exception of the compound(s) listed below: COMPOUND / CONCENTRATION (µg/L) / % RECOVERY — No Exceptions		
LABORATORY BLANKS	No target compounds were detected above the sample detection limit in laboratory blank with the exception of the compound(s) listed below: COMPOUND / CONCENTRATION (µg/L) — No Exceptions		

Analyst: Cyndi Reynolds **QC Approved By:** Timothy Chapman

DEFINITIONS

**	Concentration Exceeds EPA's allowable Maximum Contamination Level
CAS#	Chemical Abstract Services Number - Unique number to help identify analytes listed by different names
CONC.	Concentration (ug/L) of analyte actually detected in the sample
QUAL	Qualifier of analytical results as follows:
	B Analyte was detected in laboratory blank
	E Analyte was detected at a level above the concentration of the calibration curve.
	J Analyte was detected at a level below which an accurate quanitation can be given (~5 * SDL)
	U No analyte was detected above the Sample Detection Limit.
SDL	Sample Detection Limit - The lowest concentration which can be differentiated from Zero with 99% confidence taking sample size (compositing) into account.
ug/L	Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

Request ID No.

ORGANIC CHEMISTRY ANALYTICAL REQUEST FORM

SLD's Accession No.

Request ID No. 025947-C

OR

Scientific Laboratory Division
700 Camino de Salud, NE (P.O. Box 4700)
Albuquerque, NM 87106 (87196-4700)
Phone: 505-841-2500/-2570/-2566

OR

OR0002255

3 User Code: 55840

Date & Time of Receipt at SLD: 00 OCT 26 PM 4:42

4 Sample Priority: 2 If 1 or 2 call SLD

5 Submitter Code: | WSS Code: NM35 - | User's Site ID:

6 Sample Temp. Receipt @ SLD: 13 °C

7 Facility or WSS Name: ~~TAP WATER KITCHEN~~ ELDRIDGE

Facility/WSS Location: If No WSS Code Complete 8, 9 & 10

8 County: LEA

9 City: Monument

10 State: or CHANGE NM to NM

11 Sampling Location: TAP WATER KITCHEN

12 Sample Collection: On: 10/26/00 (Date MM / DD / YY) By: SHAPARD (Last Name)

At: 10:25 am (Time 2400 Hour Clock) TG (First Name)

13 Sample Info. Contact: Ph: (505) - 827 - 1558 X1007 ~~x1007~~ If not collector, per box 12, Please print name here: Debbie Brinkerhoff

14 Reports are mailed to the address specified by the Submitter Code and WSS Code (when present). However, if one of the following applies, please check ☒ appropriate boxes below and complete address form.

☐ Send additional Report to: → Name:

☐ New Address for: → Address:

☐ Submitter

☐ WSS / Client

City: State: Zip:

15 Sampling Documentation: (Check)

☐ Confirmation ☐ NMED Monitoring
☐ Resample ☐ Raw Water
☐ Split w/ Facility ☐ Finished Water
☐ Grab Sample
☐ Other:

16a Field Data: (When appropriate)

☐ Sample is Chlorinated
Chlorine Residual: ____ mG/L
Conductivity: ____ uMhos/cm
Sulfate: ____ mG/L
Temperature on Collection: ____ °C

16b Field Remarks: (Optional)

SDWA Comments:
☐ Compliance

SDWA Compositing:
☐ No Compositing
☐ Within This System Only
☐ Within All Systems

17 Sample Type: (Check ☒ only one) ☒ Water ☐ Vapor ☐ Tissue ☐ Other: ☐ Liquid: ☐ Soil ☐ Plant ☐ Blood ☐ Solid:

18 Preservation: (Check ☒ all that apply) ~~☐ Preserved with HCl to pH < 2~~ ☒ No Preservation ☐ Stored at 4°C ☒ Other: HgCl2

Number of Containers Submitted: Bottles: Vials: 2 Jars:

19 Analyses Requested: Please Check ☒ the appropriate box(es) below to indicate your analytical request(s):

Volatile Analyses:

☐-(754) Aromatic & Halogenated Volatiles (EPA 8021)
☒-(765) Mass Spectrometer Volatiles (EPA 8260 or 524.2)
☐-(764) Appendix IX Mass Spectrometer VOCs (EPA 8260)
☐-(774) Volatile Organic Compounds [VOC's] (EPA 502.2)
☐-(766) SDWA Trihalomethanes (EPA 502.2)

Remarks or Other Specific Compounds or Classes:

☐-( )
☐-( )

Special Extractions:

☐-(784) TCLP Extraction, Volatiles (Method 1311)
☐-(785) TCLP Extraction, Semivolatiles (Method 1311)
☐-(786) Explosives Screen (Aberdeen Method)

Semivolatile Analyses:

☐-(789) Drinking Water Semivolatile Analyses (Indented list)
☐-(775) EDB, DBCP & TCP (EPA 504.1)
☐-(758) Acid Herbicides (EPA 515.2)
☐-(772) Carbamates (EPA 531.1)
☐-(781) Glyphosate (EPA 547)
☐-(782) Endothall (EPA 548.1)
☐-(783) Diquat (EPA 549.1)
☐-(788) Synthetic Organic Compounds (SOCs) (EPA 525/508)
☐-(771) Haloacetic Acids in Drinking Water (EPA 552.2)
☐-(750) Hydrocarbon Fuel Screen, GRO (Modified EPA 8015)
☐-(751) Hydrocarbon Fuel Screen, GRO/DRO (Mod. EPA 8015)
☐-(752) Hydrocarbon Fuel Screen, DRO (Mod. EPA 8015)
☐-(755) Base/Neutral Semivolatiles (No Phenols) (EPA 8270)
☐-(756) Base/Neutral/Acids Semivolatiles (EPA 625/8270)
☐-(759) Polychlorinated Biphenyls (PCBs) (EPA 8082)
☐-(760) Organochlorine Pesticides (EPA 608/8081)

Organic Section Sample Collection Guidelines

(SLD-#) & Test Description	Approx. No. of Analytes Reported	Maximum Holding Time (days)	Sample Container For Water	General Preservation Footnotes	Preservation Comments
VOLATILE ORGANIC COMPOUNDS:					
(754) Aromatic and Halogenated Volatiles	63	14	40 mL Glass Vial in duplicate	A, B, C	
(765 and 764) Mass Spectrometer VOCs by GC/MS	63+	14	40 mL Glass Vial in duplicate	A, B, C	
(774) SDWA Volatile Organic Compounds, VOC-1's	63	14	40 mL Glass Vial in duplicate	A, B, C	Sample should be Unchlorinated. If chlorinated, ask for Ascorbic acid preservative.
(766) SDWA Trihalomethanes	4	14	40 mL Glass Vial in duplicate	B, C, D	
SEMIVOLATILE ORGANIC COMPOUNDS:					
(775) EDB, DBCP & TCP	3	14	40 mL Glass Vial in duplicate	B, C, D	Do Not Acidify
(758) Acid Herbicides	15	14	250 mL Amber Glass in triplicate	A, C, E	After sampling, wait one minute before adding HCl to pH of 2
(772) Carbamate Pesticides	10	28	40 mL Glass Vial	C, D	Sample bottles must be refrigerated before and after use.
(781) Glyphosate	1	14	40 mL Amber Glass Vial	C, E	
(782) Endothall	1	7	40 mL Glass Vial in duplicate	C, E	
(783) Diquat	1	7	1 L Amber Plastic	C, E	After sampling, add H_2SO_4 to pH of 2 if biologically active.
(788) Semivolatile Organic Compounds by GC/MS	75	14	1 L Amber Glass in duplicate	A, C, E	After sampling, wait one minute before adding HCl to pH of 2
(751) Hydrocarbon Fuel Screen (TPH and Hydrocarbon Range ID)	N/A	14	DRO: 1 L Amber Glass in duplicate	GRO: A, B, C DRO: C	Note: Also provide 40 mL duplicate Glass Vials for GRO
(755) Base/Neutral Semivolatiles Organic Compounds by GC/MS	66	7	1 L Amber Glass in duplicate	C	
(756) Base/Neutral /Acid Semivolatile Organic Compounds by GC/MS	88	7	1 L Amber Glass in duplicate	C	
(760) Organochlorine Pesticides and PCB's	39	7	1 L Amber Glass in duplicate	C	

Preservation Footnotes:

A = Reduce pH to 2 with Hydrochloric Acid, HCl.
B = Fill vials completely; i.e. No Air Bubble.
C = Cool samples to 4°C after collection.
D = As supplied by SLD, sample containers contain preservatives (check container label); Do NOT Rinse Container.
E = *As supplied, kits can be used for either Chlorinated systems or Unchlorinated systems. Since dechlorinating agents are added by the lab, do* not rinse the bottles. After sample collection, add the acid indicated for 758, 788, and, if necessary, 783 samples.

***** Please Use Chain-Of-Custody Form Only When Requirements Mandate *****

Single Sample **Chain-Of-Custody Form** *Single Sample*

We, the undersigned, certify that on 10-26-00 (Date) at 1:20 PM (Time) the sample identified on the container(s) and reverse of this request form by "*Request ID No.:* _____" was transferred with evidentiary seal(s):

(check applicable box) ☐ not present, ☐ present & intact, ☐ present & damaged.

Released by: _____ (Signature) & Received by: _____ (Signature)

Additional Transfer, If Applicable:

We, the undersigned, certify that on _____ (Date) at _____ (Time) the sample identified on the container(s) and reverse of this request form by "*Request ID No.:* _____" was transferred with evidentiary seal(s):

(check applicable box) ☐ not present, ☐ present & intact, ☐ present & damaged.

Released by: _____ (Signature) & Received by: _____ (Signature)

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **103001**
March 08, 2001

NMED-HWB
P.O. BOX 26110
SANTA FE, NM 87502

Project Name (none)
Project Number ELDRIDGE-MONUMENT

Attention: ROBERT ATENCIO

On 03/01/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: NMED-HWB	PINNACLE ID	: 103001
PROJECT #	: ELDRIDGE-MONUMENT	DATE RECEIVED	: 03/01/01
PROJECT NAME	: (none)	REPORT DATE	: 03/08/01

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
103001 - 01	MONUMENT IRRIG.	AQUEOUS	02/28/01
103001 - 02	MONUMENT-DRINK WELL	AQUEOUS	02/28/01

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : NMED-HWB
PROJECT # : ELDRIDGE-MONUMENT
PROJECT NAME : (none)

PINNACLE I.D.: 103001

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	MONUMENT IRRIG.	AQUEOUS	02/28/01	NA	03/03/01	250
02	MONUMENT-DRINK WELL	AQUEOUS	02/28/01	NA	03/03/01	1

PARAMETER	DET. LIMIT	UNITS	MONUMENT IRRIG.	MONUMENT-DRINK WELL
BENZENE	0.5	**UG/L**	**2000**	**3000 (D500)**
TOLUENE	0.5	**UG/L**	**1800**	**5.5**
ETHYLBENZENE	0.5	**UG/L**	**140**	**1.6**
TOTAL XYLENES	0.5	**UG/L**	**470**	**7.8**
SURROGATE:				
BROMOFLUOROBENZENE (%)			99	99
SURROGATE LIMITS	(80 - 120)			

CHEMIST NOTES:
D500) = 500X DILUTION ANALYZED ON 03/03/01.

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 103001
BLANK I. D.	: 030301	DATE EXTRACTED	: NA
CLIENT	: NMED-HWB	DATE ANALYZED	: 03/03/01
PROJECT #	: ELDRIDGE-MONUMENT	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: (none)		

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5
SURROGATE:		
BROMOFLUOROBENZENE (%)		96
SURROGATE LIMITS:	(80 - 120)	

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: EPA 8021 MODIFIED		
MSMSD #	: 030301	PINNACLE I.D.	: 103001
CLIENT	: NMED-HWB	DATE EXTRACTED	: NA
PROJECT #	: ELDRIDGE-MONUMENT	DATE ANALYZED	: 03/03/01
PROJECT NAME	: (none)	SAMPLE MATRIX	: AQUEOUS
		UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.9	105	18.7	94	11	(80 - 120)	20
TOLUENE	<0.5	20.0	18.6	93	18.7	94	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	18.9	95	19.1	96	1	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	56.2	94	56.5	94	1	(80 - 120)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)
CLIENT : NMED-HWB PINNACLE I.D.: 103001
PROJECT # : ELDRIDGE-MONUMENT
PROJECT NAME : (none)

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	MONUMENT IRRIG.	AQUEOUS	02/28/01	03/01/01	03/01/01	1
02	MONUMENT-DRINK WELL	AQUEOUS	02/28/01	03/01/01	03/01/01	1

PARAMETER	DET. LIMIT	UNITS	MONUMENT IRRIG.	MONUMENT-DRINK WELL
FUEL HYDROCARBONS, C6-C10	2.0	**MG/L**	**16**	**4.0**
FUEL HYDROCARBONS, C10-C22	1.0	MG/L	< 1.0	< 1.0
FUEL HYDROCARBONS, C22-C36	1.0	**MG/L**	**1.1**	< 1.0
CALCULATED SUM:			**17.1**	**4.0**
SURROGATE:				
O-TERPHENYL (%)			81	86
SURROGATE LIMITS	(79 - 124)			

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)		
BLANK I.D.	: 030101	PINNACLE I.D.	: 103001
CLIENT	: NMED-HWB	DATE EXTRACTED	: 03/01/01
PROJECT #	: ELDRIDGE-MONUMENT	DATE ANALYZED	: 03/01/01
PROJECT NAME	: (none)	SAMPLE MATRIX	: Aqueous

PARAMETER	UNITS	
FUEL HYDROCARBONS, C6-C10	MG/L	< 2.0
FUEL HYDROCARBONS, C10-C22	MG/L	< 1.0
FUEL HYDROCARBONS, C22-C36	MG/L	< 1.0

SURROGATE:		
O-TERPHENYL (%)		86
SURROGATE LIMITS	(78 - 128)	

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)		
MSMSD #	: 030101	PINNACLE I.D.	: 103001
CLIENT	: NMED-HWB	DATE EXTRACTED	: 03/01/01
PROJECT #	: ELDRIDGE-MONUMENT	DATE ANALYZED	: 03/01/01
PROJECT NAME	: (none)	SAMPLE MATRIX	: Aqueous
		UNITS	: MG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
FUEL HYDROCARBONS	<1.0	33.3	30.2	91	32.3	97	7	(64 - 127)	20

CHEMIST NOTES:
N/A

$$\%\ \text{Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: _____ PAGE: ___ OF ___

PLI Accession #: 103001

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: Robert (Bob) Arenio

COMPANY: NMED / HWB

ADDRESS: 2044 Galisteo Bldg. A
P.O. Box 26110

PHONE: (505) 747-1558 x 1060

FAX: (505) 747-1544

BILL TO: Same

COMPANY:

ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject DRO	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:	NUMBER OF CONTAINERS
Monument Irrig. (HCl)	3/28/01	11:28	AQ	01		X			X																					9
Monument Irrig. (HgCl)	~~3/28~~	11:28	"			X			X																					9
Monument - Drink Well	3/28/01	10:05	AQ	02		X			X	(HCl)																				2
Monument - Drink Well	3/28/01	10:19	"			X			X	(HgCl)																				2

PROJECT INFORMATION

PROJ. NO.: Eldridge-Monument

PROJ. NAME:

P.O. NO.:

SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	8
CUSTODY SEALS	Y / N (NA)
RECEIVED INTACT	YES
BLUE ICE/ICE	1.2°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

Run HgCl2 preserved bottles first.

RELINQUISHED BY: 1.

Signature: _____ Time: 10:19 AM

Printed Name: Robert Arenio Date: 3/1/01

Company: HWB/NMED

See reverse side (Force Majeure)

RECEIVED BY: 1.

Signature: Time:

Printed Name: Date:

Company:

RELINQUISHED BY: 2.

Signature: Time:

Printed Name: Date:

Company:

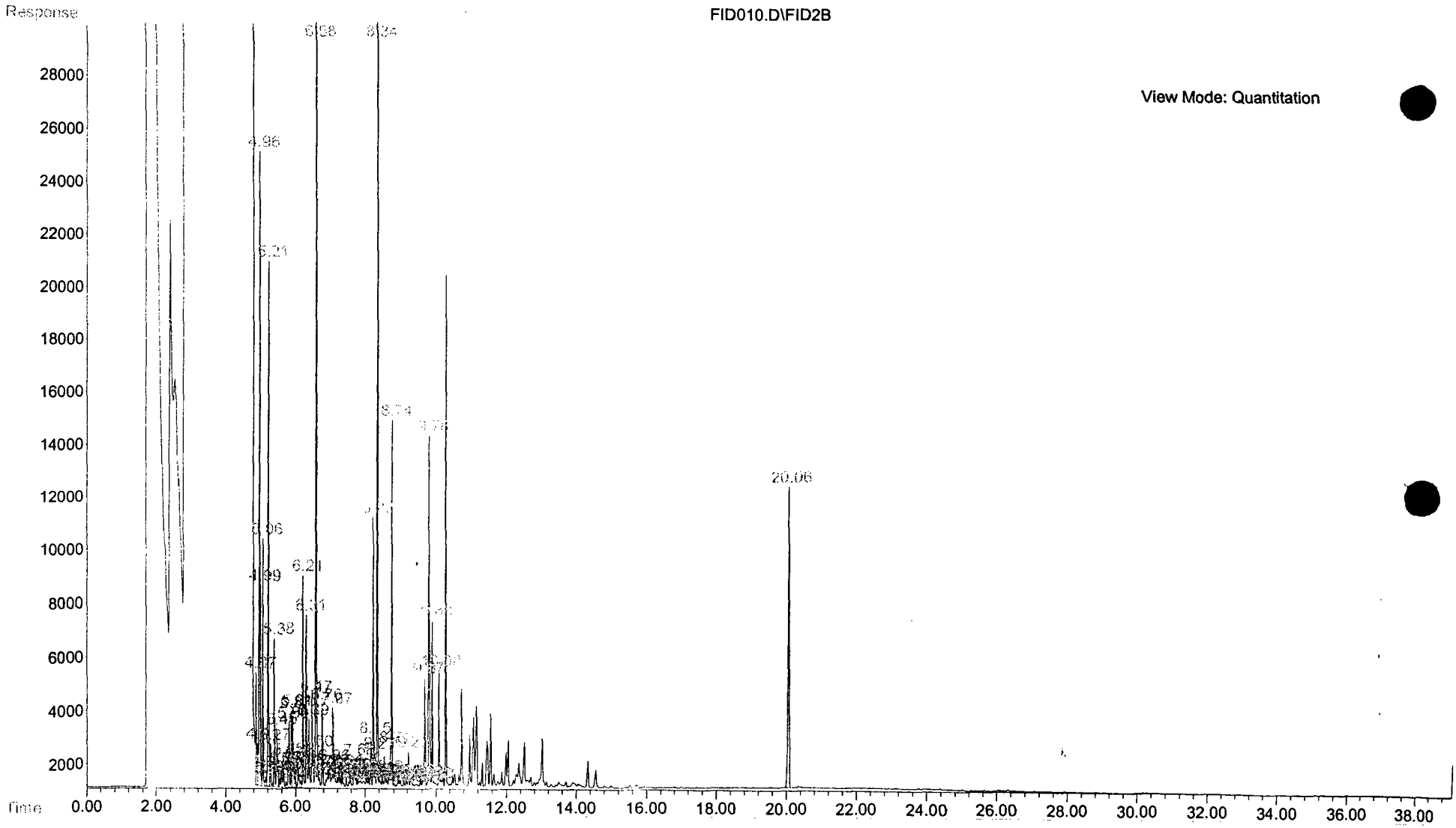
RECEIVED BY: (LAB) 2.

Signature: _____ Time: 1020

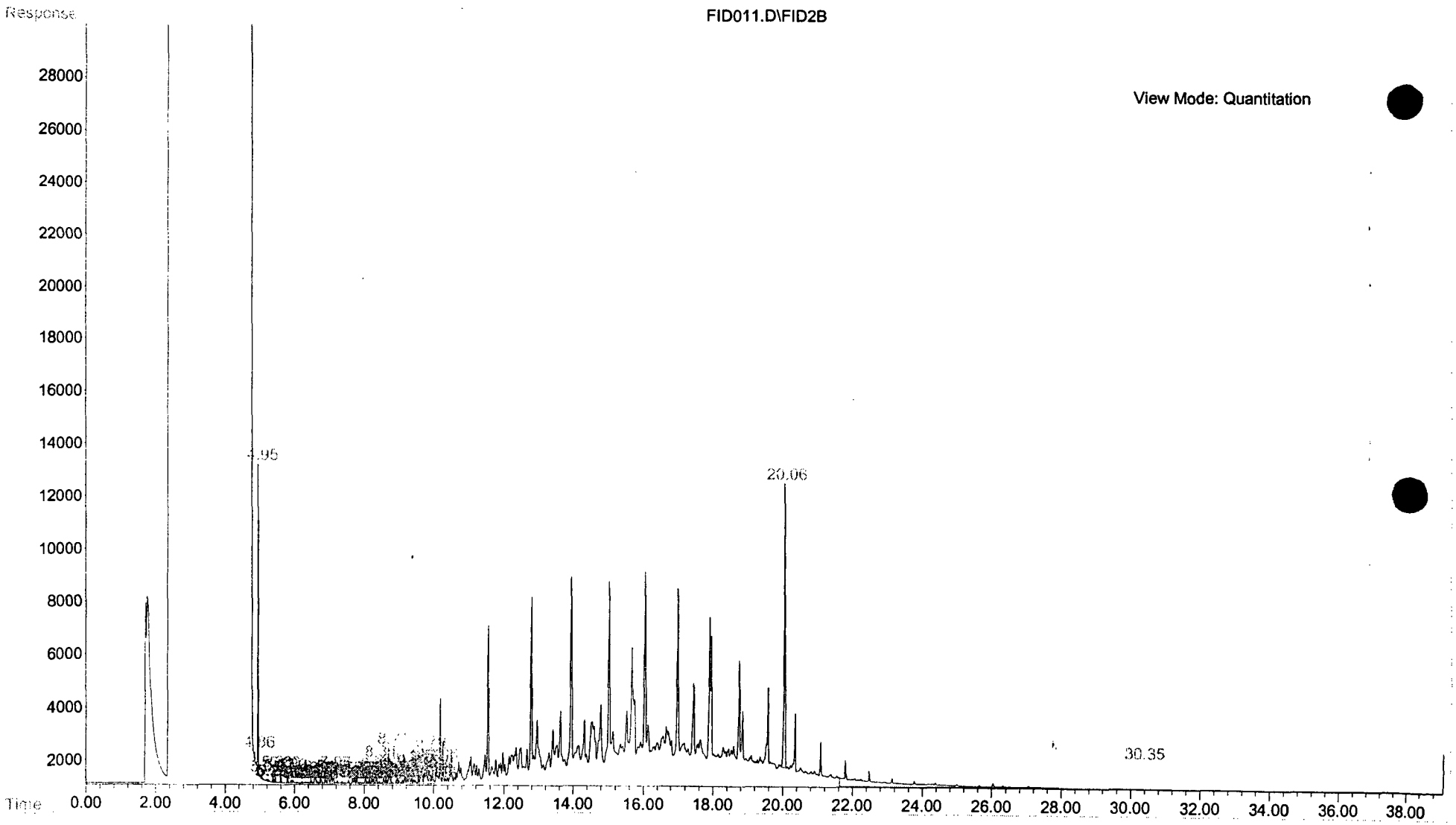
Printed Name: _____ Date: 3/1/01

Pinnacle Laboratories Inc.

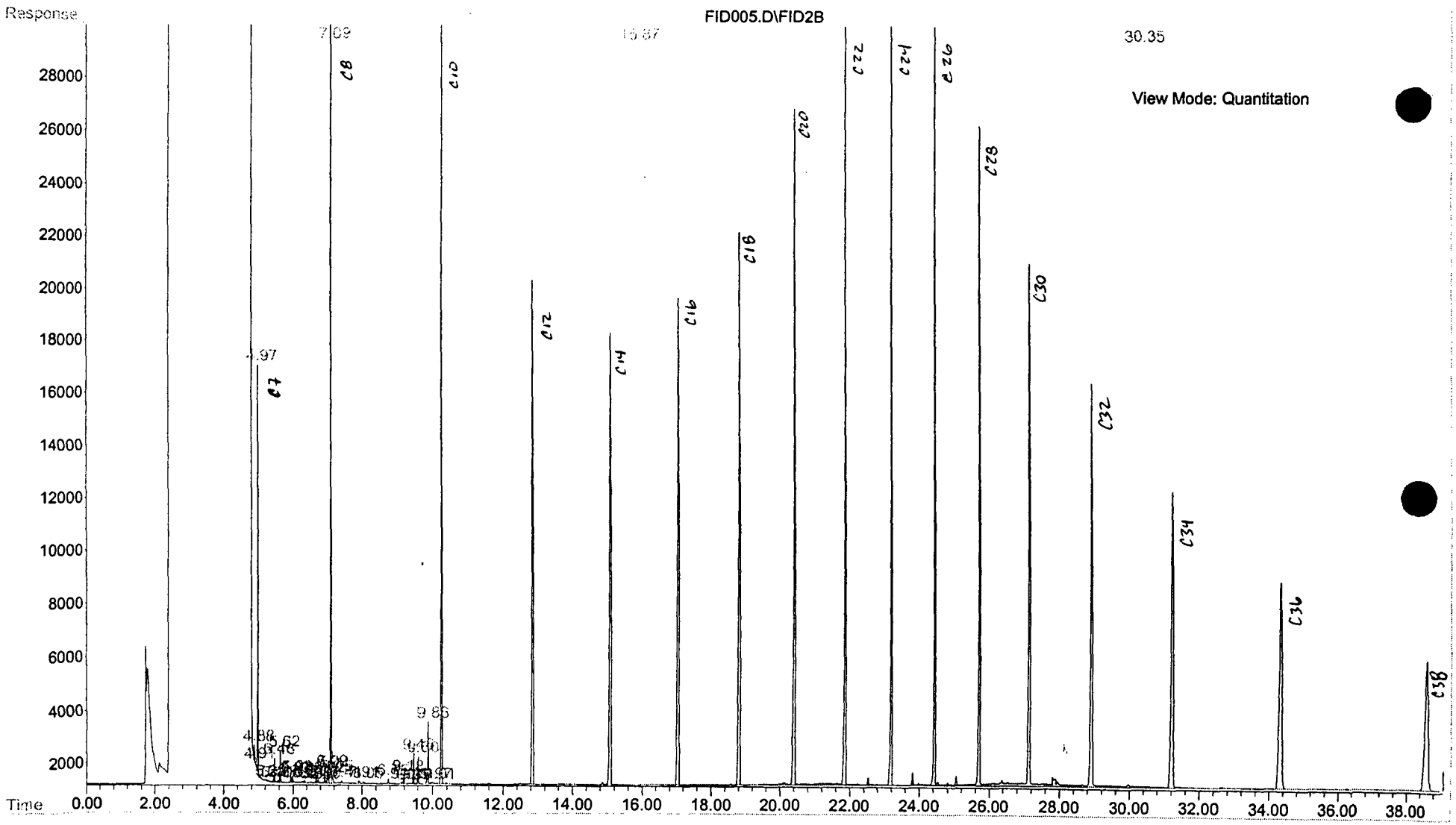
File : C:\HPCHEM\2\DATA\030101\FID010.D
Operator :
Acquired : 1 Mar 2001 18:18 using AcqMethod NM1108FR.M
Instrument : FID-1
Sample Name: gas ccv
Misc Info :
Vial Number: 10



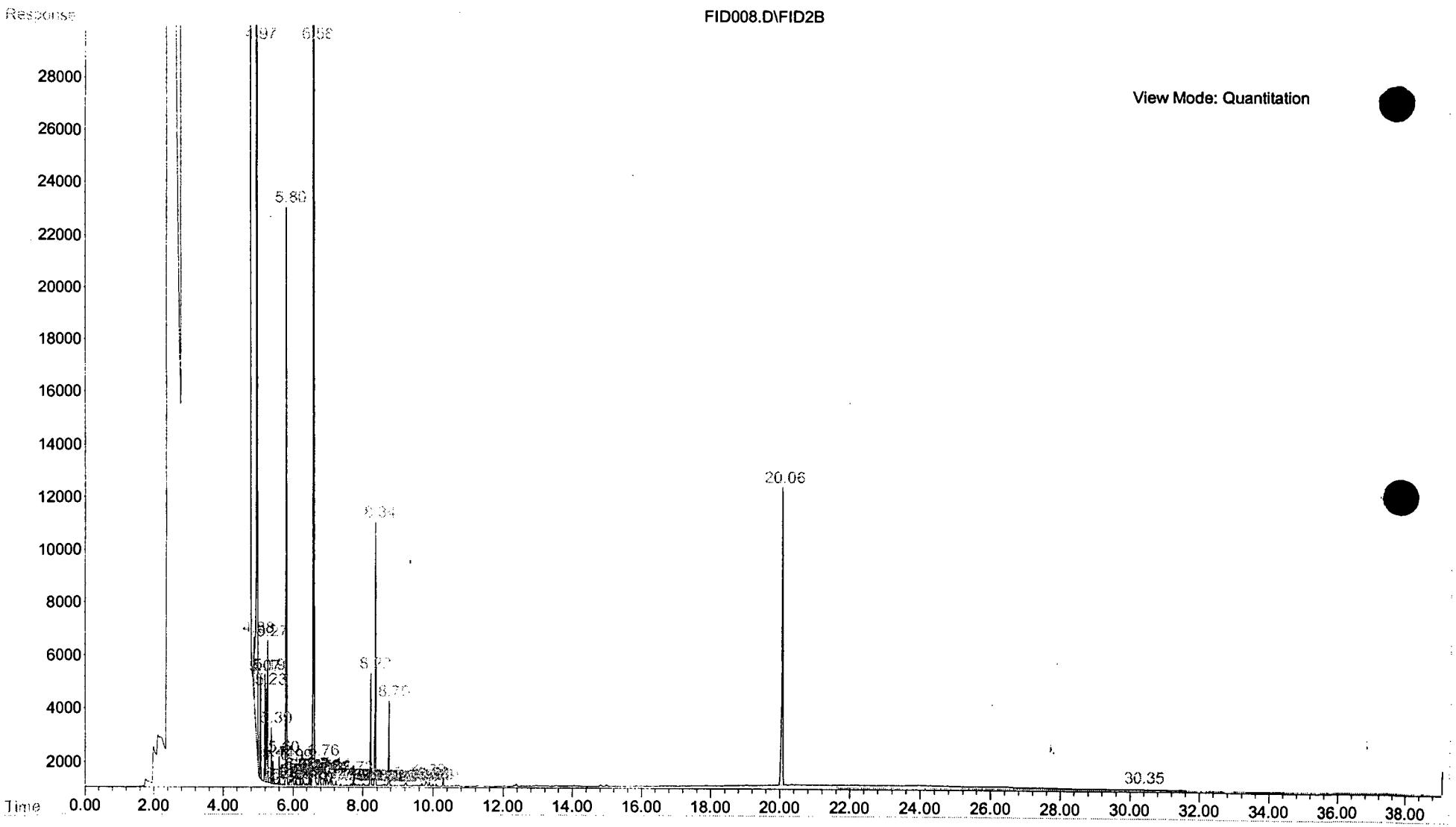
File : C:\HPCHEM\2\DATA\030101\FID011.D
Operator :
Acquired : 1 Mar 2001 19:10 using AcqMethod NM1108FR.M
Instrument : FID-1
Sample Name: dsl ccv
Misc Info :
Vial Number: 11



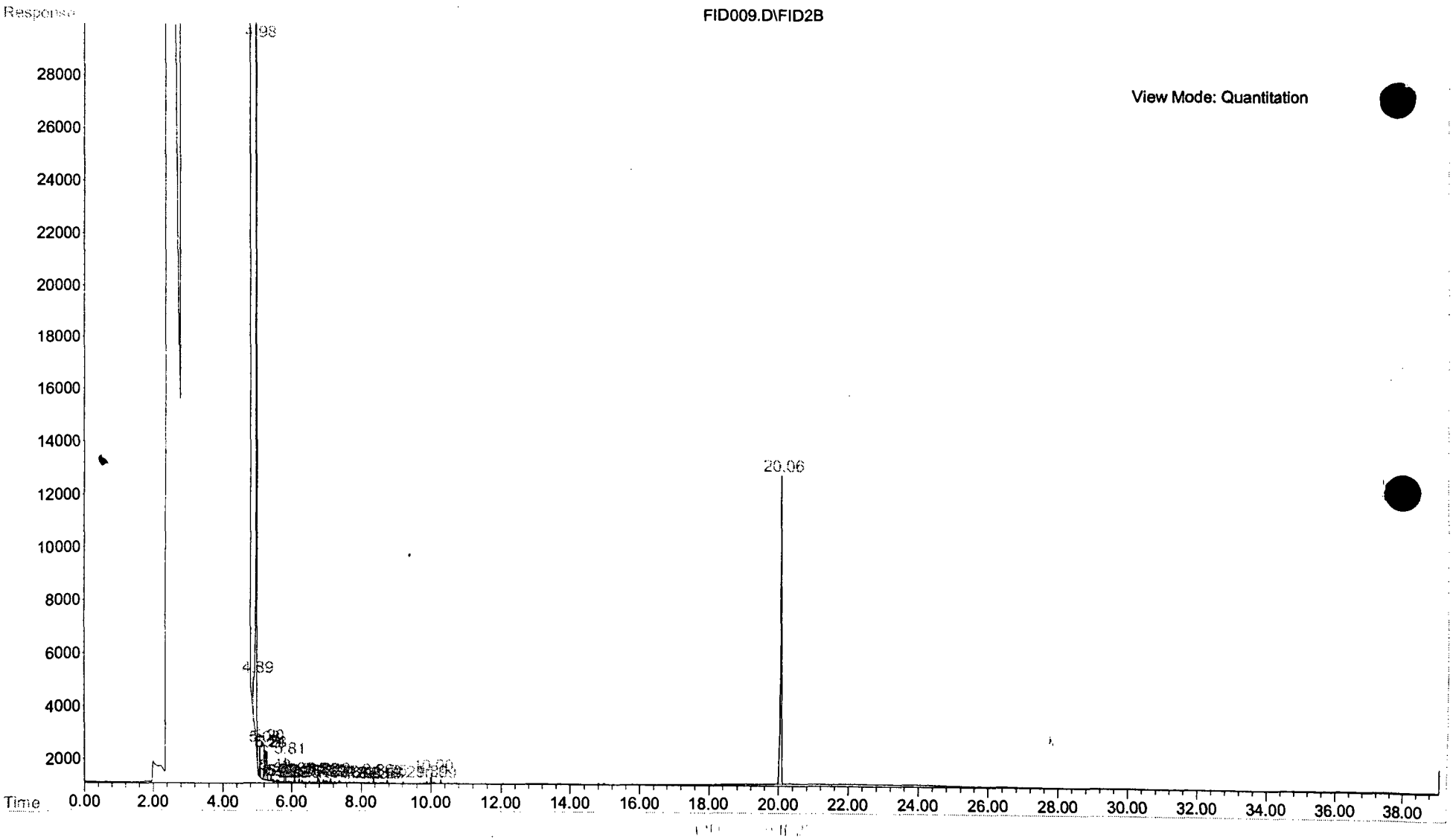
File : F:\HPCHEM\2\DATA\110500\FID005.D
Operator :
Acquired : 5 Nov 2000 12:39 using AcqMethod NM0902FR.M
Instrument : FID-1
Sample Name: rt std c8 to c36
Misc Info :
Vial Number: 5



File : C:\HPCHEM\2\DATA\030101\FID008.D
Operator :
Acquired : 1 Mar 2001 16:33 using AcqMethod NM1108FR.M
Instrument : FID-1
Sample Name: 103001-01
Misc Info :
Vial Number: 8



File : C:\HPCHEM\2\DATA\030101\FID009.D
Operator :
Acquired : 1 Mar 2001 17:26 using AcqMethod NM1108FR.M
Instrument : FID-1
Sample Name: 103001-02
Misc Info :
Vial Number: 9



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

March 23, 2001

Mr. Bob Wilcox
AMEC Earth and Environmental, Inc.
8519 Jefferson, NE
Albuquerque, New Mexico 87113

RE: GROUND WATER INVESTIGATION
ELDRIDGE RANCH

Dear Mr. Wilcox:

The New Mexico Oil Conservation Division (OCD) has reviewed AMEC Earth and Environmental, Inc.'s (AMEC) March 7, 2001 correspondence titled "SCOPE OF WORK, MONITORING WELL INSTALLATION AND SAMPLING, ELDRIDGE RANCH, LEA COUNTY, NEW MEXICO. This document contains AMEC's scope of work and cost estimate for ground water investigation and monitoring services at the Eldridge Ranch near Monument, New Mexico pursuant to the State of New Mexico, General Services Department Contract #00-805-09-17658.

The investigation services as outlined in the above-referenced document are approved. Enclosed you will find a copy of a purchase document showing that $17,935.43 has been encumbered for the investigation and monitoring required. As discussed with you in our phone conversations, all sample analyses will be covered separately under the OCD State contract with Trace Analysis, Inc.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Roger Anderson, Environmental Bureau Chief
Frank Eldridge

VENDOR CODE: 911641772

VENDOR NAME AND ORDER ADDRESS:
AMEC EARTH &
ENVIRONMENTAL INC
8519 JEFFERSON NE
ALBUQUERQUE, NM 87113 AM0168

STATE OF NEW MEXICO PURCHASE DOCUMENT

BUDGET FY	DATE	PAGE
01	03/12/2001	1 OF 1
AGENCY CODE: 521	DOCUMENT NUMBER: 01-311-006443	
TERMS	DELIVERY DATE: / /	FOB

SHIP TO:
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
SANTA FE, NM 87505

BILL TO:
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
SANTA FE, NM 87505

AGENCY CONTACT: Mary Anaya
PHONE NUMBER: (505) 476-3445

☐ PURCHASE REQUISITION
(Bids must be requested for items over $500.00)

RECOMMENDED SOURCE & SPECIAL REMARKS:

☐ ESTABLISH ☐ RENEWAL NO. _____

LN	FUND	AGCY	ORG	OBJECT	AMOUNT	FOR AGENCY USE		
01	311	521	2500	0522	17935.43	0522	2501	17935.43
TOTAL					17935.43			

MAXIMUM OF SIX ACCOUNTING LINES PER PURCHASE ORDER

☒ CONTRACT, PRICE AGREEMENT, PURCHASE ORDER OTHER THAN PROFESSIONAL SERVICE CONTRACTS:
(Approved vendors must be used for items under contract)

C/PA/PO#: SPD 00-805-09-17658 EXPIRES: 08/31/2001

☐ DIRECT PURCHASE ORDER
(only valid for purchases $500.00 and under)

☐ EXEMPT FROM THE NM PROCUREMENT CODE
Pursuant to Section _____ NMSA, 1978

☐ EXCLUDED FROM PROCUREMENT THROUGH STATE PURCHASING
Pursuant to Section _____ NMSA 1978

☐ FOR ENCUMBERING PURPOSES ONLY
Reason: _____

AGENCY APPROVAL - I certify that the proposed purchase represented by this document is authorized by and is made in accordance with all State (and if applicable Federal) legislation, rules and regulations. I further certify that adequate unencumbered cash and budget expenditure authority exists for this proposed purchase and all other outstanding purchase commitments and accounts payable.

AGENCY AUTHORIZED SIGNATURE: Joseph F. Moulton Jr. TITLE: DATE: 03/12/2001

APPROVAL 1	DATE	APPROVAL 2	DATE

COMM LN	QUANTITY	UNIT	COMMODITY CODE	ACCT LN	ARTICLE AND DESCRIPTION	UNIT COST	TOTAL COST
01					Encumber funds for emergency environmental investigation of ground water contamination at Eldridge Ranch in Lea County.	17935.4300	17935.43
						TOTAL	17935.43

SPD - 101A (05/96) COPY 4 DISTRIBUTION: AGENCY COPY 3

State of New Mexico
Energy, Minerals and Natural Resources Department
01 Budget Fiscal Year
Purchase/Commitment Review Form

03/08/2001
13:42:16

Vendor Name and Address: AMEC EARTH & ENVIRONMENTAL INC.
8519 JEFFERSON NE
ALBUQUERQUE, NM 87113

Doc Type C Control Number 96060

Input by: MANAYA
03/06/2001

Reviewed

Vendor TIN [redacted] Vendor Type CRS Cert Sent
Contact Mary Anaya
505/827-7150
Desc Environmental investigation

Ship to
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.

SANTA FE, NM 87505

Invoice to
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.

SANTA FE, NM 87505

Contract: 00-805-09-17658 Expires: 08/31/2001

DFA Line Number	Object	LGFS-Org	Amount	Enc Nbr
01	0522	2501	17,935.43	
		Total	17,935.43	

Item	Qty	Unit	Article and Description	Unit Price	Amount
1			Encumber funds for environmental investigation of ground water contamination at Eldridge Ranch in Lea County	17,935.4300	17,935.43
				Total	17,935.43

7 March 2001
AMEC Proposal No. PF01-0214
Revision No. 1

Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Attention: Mr. Bill Olson

RE: SCOPE OF WORK
Monitoring Well Installation and Sampling
Eldridge Ranch, Lea County, New Mexico

AMEC Earth & Environmental, Inc. (AMEC) is pleased to present you with this cost estimate to provide Monitoring Well Installation and Ground Water Sampling Services in the vicinity of the Eldridge Ranch located in Lea County, New Mexico. Scope of services were detailed in Request for Proposal (RFP) provided to AMEC by the State of New Mexico Energy, Minerals and Natural Resources Department Oil - Conservation Division (NMOCD) dated 30 January, 2001.

This scope of work will follow the terms and conditions of AMEC's Site Maintenance and Monitoring Contract (PA No. 00-805-09-17658) awarded by the State of New Mexico, General Services Department. Where a specific item is warranted in the NMOCD scope of work and is not detailed in the GSA Contract, AMEC will use its most current Unit Fee Schedule. We assume that the NMOCD will obtain access from property owners for drilling and sampling during the project. AMEC will contact the NMOCD Project Manager within one week prior to beginning the project to inform interested parties of our drilling and sampling schedule.

All work performed at the site will conform with AMEC's Safety Policies and Procedures Manual. A site specific Health and Safety Plan (HASP) will be prepared prior to site mobilization. AMEC will contact New Mexico One Call to locate underground utilities prior to the initiation of drilling.

1. MONITOR WELL INSTALLATION

The scope of work will consist of drilling and installing five (5) monitoring wells consisting of 2-inch diameter PVC pipe to the depth of approximately ten (10) feet below the top of the water table using an air rotary drilling rig. For the purposes of this proposal, and based on information from nearby wells, we anticipate that the total depth of each wells to be 75 feet. If actual conditions prove groundwater is shallower or deeper than expected, our costs will reflect actual time spent in the field at the listed unit rates. If costs are expected to exceed the total in the attached budget, AMEC will notify the NMOCD Project Manager prior to incurring those costs.

All down hole equipment will be steam-cleaned prior to use and between each hole. Soil samples will be collected from cuttings every five feet for logging formation descriptions by the AMEC field

geologist. The cuttings also will be field screened using a calibrated photo ionization detector (PID). For the purposes of this proposal, it is not anticipated that soil samples will be obtained for laboratory analysis. However, in the event that contaminated soils are encountered, the OCD Project Manager will be notified immediately. If hydrocarbon contaminated soils are encountered during drilling near a potential source area, split spoon samples will be obtained at 5-foot intervals during the drilling of the particular boring. If split-spoon sampling is necessary, the split spoons will be properly decontaminated between each use. If necessary, a minimum of one (1) sample from the highest PID reading and one (1) sample near the soil/groundwater interface will be submitted for laboratory analysis of total petroleum hydrocarbons (TPH), by EPA Method 8015 for full range hydrocarbons and benzene, toluene, ethylbenzene and xylene (BTEX) by EPA Method 8021. It is our understanding that the NMOCD will provide the necessary sampling supplies and laboratory analysis, if necessary, at no cost to AMEC.

The monitor wells will then be competed in the following manner:

- 10 feet of 0.010 PVC screen below the top of ground water level
- 10 feet of 0.010 PVC screen above the top of ground water level
- gravel pack from the bottom of the hole to 3 feet above the top of the well screen
- 2 to 3 feet bentonite plug placed on top of gravel pack
- cement grout containing 3 to 5 % bentonite to surface
- concrete pad around well surface with locking three (3) foot riser

2. MONITOR WELL DEVELOPMENT AND GROUND WATER SAMPLING

After completion of the wells, they will be developed using a clean, stainless steel bailer to surge and purge the well until the amount of suspended solids have been reduced and pH, temperature, and conductivity have stabilized. The bailer will be properly decontaminated between developing each well. All development water will be placed in 55-gallon steel drums which will be sealed and labeled according to their contents.

The wells will be allowed to recharge for 24 hours, then at least three casing volumes will be purged and ground water samples collected with separate disposable bailers from each well after pH, temperature, and conductivity have stabilized. These samples will be sent for the NMOCD contract laboratory for analysis for BTEX, TPH, total dissolved solids (TDS), major cations/anions and New Mexico Water Quality Control Commission (NMWQCC) metals. Any samples obtained during the project will be placed in containers supplied by the laboratory, chilled properly in a cooler, and sent overnight delivery to the laboratory using standard chain-of custody protocols.

3. SURVEYING

AMEC will subcontract a surveyor licensed in the State of New Mexico to determine the top of casing elevations for the installed monitor wells and ground elevations near each water well on the property. These elevations will assist in determining the groundwater gradient and flow direction.

4. WASTE DISPOSAL

If regulated wastes such as contaminated soil or ground water are generated during the project, the media will be drummed in 55-gallon containers, sealed and properly labeled as to their contents. Following the receipt and review of laboratory analyses, if necessary, the drums/contaminated media will be disposed at a NMOCD-licensed facility near Hobbs. We request that NMOCD personnel sign applicable waste manifests.

5. REPORTING

AMEC will submit a report to the NMOCD summarizing the field activities and laboratory analyses. The report will include the following:

- A description of the investigation activities during the project including conclusions and recommendations;
- A geologic and lithologic log and well completion diagram for each monitor well;
- A water table map showing the location of the monitor wells, water wells, potential sources of contamination and other important site features. The magnitude and direction of the hydraulic gradient will be determined using the groundwater elevations from each well provided by a surveyor licensed in the State of New Mexico;
- Isopleth maps for contaminants observed during the investigation;
- Summary tables of all groundwater quality sampling results and copies of all laboratory analytical data sheets and associated QA/QC data;
- A disposition of all waste generated.

The report will be submitted to the NMOCD within 60 days of the initiation of drilling activities. We understand that our report will be possibly used for enforcement action purposes and will present defensible data in a professional format.

It is anticipated that the field project will consist of 5 working days. We expect to be able to begin the project within two weeks of being given the notice to proceed. The costs are based on drilling and installing wells to a depth of 75 feet each. If unforeseen drilling conditions are encountered, costs for the project may increase. The NMOCD will be notified in the event this occurs. The cost estimate for the project is $17,935.43 including 5.8125% New Mexico Gross Receipts Tax. An estimated cost breakdown for the project is shown on the attachment and reflect the unit rates in our price agreement for environmental services with the State of New Mexico. Should you have any questions concerning this proposal, please contact our office.

Respectfully submitted,

AMEC Earth & Environmental, Inc.

Bob Wilcox

Bob Wilcox, P.G.
Senior Project Manager

Reviewed by:

Fred Schelby

Fred T. Schelby, P.E.
Engineering Manager

Copies: Addressee (2)

BW:rrg

AMEC Earth & Environmental, Inc.
8519 Jefferson, N.E.
Albuquerque, New Mexico 87113
Telephone: 505/821-1801
Fax: 505/821-7371
www.amec.com

Budget Estimate - PF01-0214, Revision No. 1
New Mexico Oil Conservation Division
Monitoring Well and Ground Water Sampling
Eldridge Ranch, Monument, New Mexico

AMEC Mobilization/Demobilization/ Project Preparation	
10 hours Staff Scientist @ $57/hour	$ 570.00
720 miles @ $.25/mile	$ 180.00
1 man days per diem @ $60/day	$ 60.00
Subtotal	**$ 810.00**
Drilling Rig Mobilization/Demobilization	
3 hours Drilling Rig Preparation @ $100/hour	$ 300.00
2 man days per diem @ $60/day	$ 120.00
Drilling Rig 720 miles @ $0.75/mile	$ 540.00
Subtotal	**$ 960.00**
Drilling and Monitor Well Installation	
Enviroworks -Drilling Contractor	
Air rotary drilling and well completion	
Drilling 30.25 hours @ $230.00/hour (5-75 ft wells)	$ 6,957.50
10' sections - 2 inch 0.010 PVC screen, 10 @ $24.00/10 ft	$ 240.00
10' sections - Blank 2 inch PVC riser, 30 @ $15.50/10 ft	$ 465.00
Sand pack, 50 @ $6.60/50lb	$ 330.00
Bentonite chips, 7 @ $6.60/50lb	$ 46.20
3' Stickup Manhole Well Cover, 5 @ $50.00/ea	$ 250.00
8 man days per diem @ $60/day (Drill Crew)	$ 480.00
AMEC	
24 hours Staff Scientist @ $57/hour	$ 1,368.00
PID 3 day @ $5.00/day	$ 15.00
3 man days per diem @ $60/day (AMEC)	$ 180.00
Subtotal	**$10,331.70**
Well Development/Ground Water Sampling	
Drill Rig 5 hours @ $100.00/hour (develop wells)	$ 500.00
8 hours Staff Scientist @ $57/hour	$ 456.00
Interface Probe 4 days @ $5.00/day	$ 20.00
pH/Temp/Conductivity Meter 2 days @ $5.00/day	$ 10.00
1 man day per diem @ $60/day (AMEC)	$ 60.00
Subtotal	**$ 1,046.00**

Survey by Licensed Surveyor	
Survey Crew, 17.5 man hours @ $57/hour	$ 997.50
Waste Disposal	
5 drums @ $115/drum	$ 575.00
Subtotal	**$ 1,572.50**
HASP Preparation/Project Management/Reporting	
16 hours Senior Scientist @ $75/hour	$ 1,200.00
8 hours Staff Scientist @ $57/hour	$ 456.00
6 hours Clerical @ $29/hour	$ 174.00
10 hours Drafting @ $40/hour	$ 400.00
Subtotal	**$ 2,230.00**
Estimated Project Total	**$16,950.20**
Estimated Project Total (including 5.8125% NMGRT)	**$17,935.43**

At this time, it is not known if regulated wastes will be generated during the project. All development water and any contaminated soils will be drummed. Following review of the laboratory results, if necessary, the media will be transported to a NMOCD licensed facility near Hobbs.

1 March 2001
AMEC Proposal No. PF01-0214

Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Attention: Mr. Bill Olson

RE: SCOPE OF WORK
Monitoring Well Installation and Sampling
Eldridge Ranch, Lea County, New Mexico

AMEC Earth & Environmental, Inc. (AMEC) is pleased to present you with this cost estimate to provide Monitoring Well Installation and Ground Water Sampling Services in the vicinity of the Eldridge Ranch located in Lea County, New Mexico. Scope of services were detailed in Request for Proposal (RFP) provided to AMEC by the State of New Mexico Energy, Minerals and Natural Resources Department Oil - Conservation Division (NMOCD) dated 30 January, 2001.

This scope of work will follow the terms and conditions of AMEC's Site Maintenance and Monitoring Contract (PA No. 00-805-09-17658) awarded by the State of New Mexico, General Services Department. Where a specific item is warranted in the NMOCD scope of work and is not detailed in the GSA Contract, AMEC will use its most current Unit Fee Schedule. We assume that the NMOCD will obtain access from property owners for drilling and sampling during the project. AMEC will contact the NMOCD Project Manager within one week prior to beginning the project to inform interested parties of our drilling and sampling schedule.

All work performed at the site will conform with AMEC's Safety Policies and Procedures Manual. A site specific Health and Safety Plan (HASP) will be prepared prior to site mobilization. AMEC will contact New Mexico One Call to locate underground utilities prior to the initiation of drilling.

1. MONITOR WELL INSTALLATION

The scope of work will consist of drilling and installing five (5) monitoring wells consisting of 2-inch diameter PVC pipe to the depth of approximately ten (10) feet below the top of the water table using an air rotary drilling rig. For the purposes of this proposal, and based on information from nearby wells, we anticipate that the total depth of each wells to be 75 feet. If actual conditions prove groundwater is shallower or deeper than expected, our costs will reflect actual time spent in the field at the listed unit rates. If costs are expected to exceed the total in the attached budget, AMEC will notify the NMOCD Project Manager prior to incurring those costs.

All down hole equipment will be steam-cleaned prior to use and between each hole. Soil samples will be collected from cuttings every five feet for logging formation descriptions by the AMEC field geologist. The cuttings also will be field screened using a calibrated photo ionization detector (PID). For the purposes of this proposal, it is not anticipated that soil samples will be obtained for laboratory analysis. However, in the event that contaminated soils are encountered, the OCD Project Manager will be notified immediately. If hydrocarbon contaminated soils are encountered during drilling near a potential source area, split spoon samples will be obtained at 5-foot intervals during the drilling of the particular boring. If split-spoon sampling is necessary, the split spoons will be properly decontaminated between each use. If necessary, a minimum of one (1) sample from the highest PID reading and one (1) sample near the soil/groundwater interface will be submitted for laboratory analysis of total petroleum hydrocarbons (TPH), by EPA Method 8015 for full range hydrocarbons and benzene, toluene, ethylbenzene and xylene (BTEX) by EPA Method 8021. It is our understanding that the NMOCD will provide the necessary sampling supplies and laboratory analysis, if necessary, at no cost to AMEC.

The monitor wells will then be competed in the following manner.

- 10 feet of 0.010 PVC screen below the top of ground water level
- 5 feet of 0.010 PVC screen above the top of ground water level
- gravel pack from the bottom of the hole to 3 feet above the top of the well screen
- 2 to 3 feet bentonite plug placed on top of gravel pack
- cement grout containing 3 to 5 % bentonite to surface
- concrete pad around well surface with locking three (3) foot riser

2. MONITOR WELL DEVELOPMENT AND GROUND WATER SAMPLING

After completion of the wells, they will be developed using a clean, stainless steel bailer to surge and purge the well until the amount of suspended solids have been reduced and pH, temperature, and conductivity have stabilized. The bailer will be properly decontaminated between developing each well. All development water will be placed in 55-gallon steel drums which will be sealed and labeled according to their contents.

The wells will be allowed to recharge for 24 hours, then at least three casing volumes will be purged and ground water samples collected with separate disposable bailers from each well after pH, temperature, and conductivity have stabilized. These samples will be sent for the NMOCD contract laboratory for analysis for BTEX, TPH, total dissolved solids (TDS), major cations/anions and New Mexico Water Quality Control Commission (NMWQCC) metals. Any samples obtained during the project will be placed in containers supplied by the laboratory, chilled properly in a cooler, and sent overnight delivery to the laboratory using standard chain-of custody protocols.

3. SURVEYING

AMEC will subcontract a surveyor licensed in the State of New Mexico to determine the top of casing elevations for the installed monitor wells and ground elevations near each water well on the property. These elevations will assist in determining the groundwater gradient and flow direction.

4. WASTE DISPOSAL

If regulated wastes such as contaminated soil or ground water are generated during the project, the media will be drummed in 55-gallon containers, sealed and properly labeled as to their contents. Following the receipt and review of laboratory analyses, if necessary, the drums/contaminated media will be disposed at the NMOCD-licensed CRI facility in Hobbs. We request that NMOCD personnel sign applicable waste manifests.

5. REPORTING

AMEC will submit a report to the NMOCD summarizing the field activities and laboratory analyses. The report will include the following:

- A description of the investigation activities during the project including conclusions and recommendations;
- A geologic and lithologic log and well completion diagram for each monitor well;
- A water table map showing the location of the monitor wells, water wells, potential sources of contamination and other important site features. The magnitude and direction of the hydraulic gradient will be determined using the groundwater elevations from each well provided by a surveyor licensed in the State of New Mexico;
- Isopleth maps for contaminants observed during the investigation;
- Summary tables of all groundwater quality sampling results and copies of all laboratory analytical data sheets and associated QA/QC data;
- A disposition of all waste generated.

The report will be submitted to the NMOCD within 60 days of the initiation of drilling activities. We understand that our report will be possibly used for enforcement action purposes and will present defensible data in a professional format.

It is anticipated that the field project will consist of 5 working days. We expect to be able to begin the project within two weeks of being given the notice to proceed. The costs are based on drilling and installing wells to a depth of 75 feet each. If unforeseen drilling conditions are encountered, costs for the project may increase. The NMOCD will be notified in the event this occurs. The cost estimate for the project is $15,931.45 not including applicable sales tax. An estimated cost breakdown for the project is shown on the attachment and reflect the unit rates in our price agreement for environmental services with the State of New Mexico. Unit rates not specified in the price agreement are provided to the NMOCD with no markup by AMEC. Should you have any questions concerning this proposal, please contact our office.

Respectfully submitted,

AMEC Earth & Environmental, Inc.

Bob Wilcox, P.G.
Senior Project Manager

Reviewed by:

Fred Schelby, P.E.
Manager of Engineering

BW/FS/ng

Copies: Addressee (2)

AMEC Earth & Environmental, Inc.
8519 Jefferson, N.E.
Albuquerque, New Mexico 87113
Tel + 505/821-1801
Fax + 505/821-7371
www.amec.com

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Budget Estimate - PF01-0214
New Mexico Oil Conservation Division
Monitoring Well and Ground Water Sampling
Eldridge Ranch, Monument, New Mexico

AMEC Mobilization/Demobilization/ Project Preparation		
10 hours Staff Scientist @ $57/hour		$ 570.00
720 miles @ $.25/mile		$ 180.00
1 man days per diem @ $60/day		$ 60.00
	Subtotal	**$ 810.00**
Drilling Rig Mobilization/Demobilization		
3 hours Drilling Rig Preparation @ $100/hour		$ 300.00
2 man days per diem @ $60/day		$ 120.00
Drilling Rig 720 miles @ $0.75/mile		$ 540.00
	Subtotal	**$ 960.00**
Drilling and Monitor Well Installation		
Enviroworks -Drilling Contractor		
Air rotary drilling and well completion		
Drilling 24 hours @ $230.00/hour (5-75 ft wells)		$ 5,520.00
10' sections - 2 inch 0.010 PVC screen @ $30.00/10 ft		$ 150.00
5' sections - 2 inch 0.010 PVC screen, 5 @ $22.25/10 ft		$ 111.25
10' sections - Blank 2 inch PVC riser, 300 ft @ $15.00/10 ft		$ 450.00
Sand pack, 50 @ $6.60/50lb		$ 330.00
Bentonite chips, 7 @ $6.60/50lb		$ 46.20
3' Stickup Well Cover, 5 @ $45.00/ea		$ 225.00
Installation of Well Cover, 5 @ $100.00/ea		$ 500.00
Grout Wells in Place - 280 ft @ $3.00/ft		$ 840.00
End Cap Flush Threaded, 5 @ $8.00/ea		$ 40.00
Locking Jay Plug, 5 @ $16.00/ea		$ 80.00
8 man days per diem @ $60/day (Drill Crew)		$ 480.00
AMEC		
24 hours Staff Scientist @ $57/hour		$ 1,368.00
PID 3 day @ $5.00/day		$ 15.00
3 man days per diem @ $60/day (AMEC)		$ 180.00
	Subtotal	**$ 10,335.45**
Well Development/Ground Water Sampling		
Drill Rig 5 hours @ $100.00/hour (develop wells)		$ 500.00
8 hours Staff Scientist @ $57/hour		$ 456.00
Interface Probe 4 days @ $5.00/day		$ 20.00
pH/Temp/Conductivity Meter 2 days @ $5.00/day		$ 10.00
1 man day per diem @ $60/day (AMEC)		$ 60.00
	Subtotal	**$ 1,046.00**

Survey by Licensed Surveyor		$ 1,000.00
	Subtotal	**$ 1,000.00**
HASP Preparation/Project Management/Reporting		
16 hours Senior Scientist @ $75/hour		$ 1,200.00
8 hours Staff Scientist @ $57/hour		$ 456.00
6 hours Clerical @ $29/hour		$ 174.00
10 hours Drafting @ $40/hour		$ 400.00
	Subtotal	**$ 1,780.00**
	Estimated Project Total (excluding NMGRT)	**$15,931.45**

At this time, it is not known if regulated wastes will be generated during the project. All development water and any contaminated soils will be drummed. Following review of the laboratory results, if necessary, the media will be transported to the NMOCD licensed facility - CRI near Hobbs by CRI personnel and equipment.

Waste Disposal (Estimate)		
5 drums @ $115/drum		$ 575.00
	Subtotal	**$ 575.00**

Olson, William

From: Bob Wilcox [SMTP:BWilcox@agraus.com]
Sent: Thursday, March 01, 2001 6:29 AM
To: WOLSON@state.nm.us
Subject: Eldridge Ranch

Hello Bill,

The final draft of our proposal was reviewed last night and I expect to make final revisions first chance this morning. I will e-mail you a final copy of our proposal by noon today and send you a hard copy by mail. If you would like me to fax you a copy today as well, please let me know.

I attempted to get a local drilling company in Hobbs to provide me with pricing along the lines of our state price agreement but didn't have success. Our drilling contractor who bid the price agreement with us finally got me numbers to work with late afternoon on Tuesday. The driller's costs came to $2000 less for drilling than using a local company. I now expect the total project cost to be less than $15K, excluding tax, and disposal costs.

Bob Wilcox, P.G.

RESPEC
An Integrated Consulting and Services Company

4775 Indian School RD NE Suite 300
Albuquerque, NM 87110
Phone: 505.268.2661 Fax: 505.268.0040
http://www.respec.com

FAX FAX FAX FAX FAX FAX FAX

Please deliver this fax to: Bill Olson

Fax number: 505 476 3462

Date of transmission: 2/21/01

Total number of pages (including cover): 2

From: DAVE HENARD

Fax number: 505 268 0040

Phone number: 505 268 2661

Subject: Eldridge Property - Hydrosco Investigation

COMMENTS: Bill,

Per your phone call this A.M. find cost breakdown for this project.

Please call if you have any questions

Thanks
Dave

If this fax transmittal is not complete, please contact _____ at 505.268.2661. Thank you.

OCD Proposal
Cost Breakdown

Task 4/5 Installation of Five Monitor Wells

		rate	units			
Staff Geologist		$50.00 /hour	70	hours	$3,500.00	
Field Tech II		$35.00 /hour		hours	$0.00	
travel	Round trips	$0.30 /mile	700	miles	$210.00	
	per diem	$30.00 /day	7	days	$210.00	
	lodging	$60.00 /night	6	nights	$360.00	
Supplies						
PID		$150.00 week	1	week	$150.00	$4,430.00
Drilling Expenses (Enviro-works)						
Air/rotary		$170.00 hour	60	hours	$10,200.00	
Coring		$12.00 foot	375	feet	$4,500.00	
Manholes		$50.00 each	5	each	$250.00	
Bentonite		$8.50 each	10	each	$85.00	
10/20 Sand		$8.29 each	50	each	$414.50	
cement		$3.50 foot	275	feet	$962.50	
2" Blank		$1.50 foot	300	feet	$450.00	
2" Screen		$2.80 foot	75	feet	$210.00	
Mobe/demobe		$1.00 mile	700	miles	$700.00	
Steam Cleaner		$50.00 day	6	days	$300.00	
Per Diem		$90.00 day	7	days	$630.00	
Disposal		$120.00 drum	5	drums	$600.00	
						$19,302.00

Task 6 Ground Water Sampling

		rate	units			
Field Technician		$35.00 /hour	70	hours	$2,450.00	
travel	Round trips 0	$0.30 /mile		miles	$0.00	
	per diem	$30.00 /day	7	days	$210.00	
	lodging	$50.00 /night	6	nights	$300.00	
Supplies						
Well Sounder		$25.00 /day		day	$0.00	
Bailers		$10.00 each	5	wells	$50.00	
Physical Property Analysis						
		$140.00 /sample		/samples	$0.00	
					$0.00	
Markup		0.15				$3,010.00

Task 7 Survey

Staff Engineer	$60.00 /hour	10	/hours	$600.00
Administration	$35.00 /hour		/hours	$0.00
				$500.00

Task 7 Prepare and submit report

	rate	units		
Principal Investigator	$100.00 /hour		/hours	$0.00
Project Manager	$60.00 /hour	12	/hours	$720.00
Staff Engineer/Geologist	$50.00 /hour	4	/hours	$200.00
Technical Support	$35.00 /hour	6	/hours	$210.00
Administration	$35.00 /hour	2	/hours	$70.00
				$1,200.00

Totals

Task1	$0.00			
Task 2	$0.00			
Task 3	$0.00			
Task 4	$4,430.00			
Task 5	$19,302.00	Tasks 1-8	Grand SubTotal =	$28,542.00
Task 6	$3,010.00		Tax =	$1,659.00
Task 7	$600.00		Grand Total =	$30,201.00
Task 8	$1,200.00			

RESPEC
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Phone: 505.268.2661 Fax: 505.268.0040
http://www.respec.com

FAX FAX FAX FAX FAX FAX FAX

Please deliver this fax to: Bill Olson

Fax number: 505-476-3462

Date of transmission: 2.20.01

Total number of pages (including cover): 2

From: John Bunch

Fax number: 268-0040

Phone number: 268.2661

Subject: Cost estimate for Eldrige Ranch

COMMENTS:

Dear Mr. Olson:

Please see attached estimate. If you have any questions please call Dave Henard or myself (I will be out of the office the rest of this week).

Thank you.

John R Bunch

If this fax transmittal is not complete, please contact _____ at 505.268.2661. Thank you.

February 20, 2001

William C. Olson
New Mexico Oil Conservation Division
1220 St. Francis Dr.
Santa Fe, New Mexico 87505

Re: Cost proposal for investigation of groundwater contamination of the Eldridge Ranch water wells

Dear Mr. Olson:

Please see the cost estimate for the above referenced site. The estimate is based on our price agreement (P.A. number 00-805-09-17658) with the State of New Mexico General Services Department.

I broke down the estimate as follows:

1. Installation of five (5) groundwater monitor wells to a depth of 75 feet below surface grade (BSG), pursuant to your technical specifications. It is assumed that a drilling rig with air-rotary/o-dex capabilities will be necessary to advance through the terrace and pediment deposits.

Subtotal	$ 23, 732.00

2. Groundwater sampling, waste disposal, site survey, and reporting pursuant to your technical specifications.

Subtotal	$ 4,810.00
Total	$ 28, 542.00

Please let me know if you need the costs broken down in more detail. If you would like I can supply you with some spreadsheets that break out the cost estimate using our pre-approved rates under our pricing agreement.

If you have any questions, please call me at 268-2661

Sincerely,

John R. Bunch, P.G.
Staff Geologist

Olson, William

From: Olson, William
Sent: Friday, February 16, 2001 2:11 PM
To: 'Dave Henard - Respec'
Cc: Anderson, Roger; Wrotenbery, Lori; Williams, Chris
Subject: FW: Scope of Work - Eldridge Ranch

Pursuant to our conversation, attached is a scope of work for an Oil Conservation Division ground water investigation at the Eldridge Ranch under the General Services Department Purchasing Division contract # 00-805-09-17658 . One issue that the OCD has not completely addressed is access. Mr. Eldridge has agreed to give the state access for drilling and sampling. However, he does not own the land north of his water well where some of the monitor wells will need to be placed. The OCD will need to negotiate access to this land prior to drilling.

I look forward to your response on a cost estimate for this project.

SCOPE.DOC

Olson, William
From: Olson, William
Sent: Wednesday, February 14, 2001 10:45 AM
To: 'Bob Wilcox'
Subject: RE: Scope of Work - Eldridge Ranch

In response to the your questions:

1. The approximate distance between the furthest upgradient and downgradient wells probably won't be more than about 1000 feet.
2. Since the investigation may result in an enforcement action against a responsible party the wells should be surveyed by a licensed surveyor.
3. We are not expecting to be drilling though any source areas, since there are none to be seen at the surface. However, if contaminated soils are discovered in the vadose zone, as a contingency in this circumstance we probably should obtain a couple of soil samples. This would not include contaminated soils found at the water table.
4. Only contaminated soils/cuttings need to be drummed and disposed of offsite.
5. Development water will need to be drummed. If the water from that well is below standards, the water may be disposed of onsite.

From: Bob Wilcox [SMTP:BWilcox@agraus.com]
Sent: Monday, February 12, 2001 3:16 PM
To: WOLSON@state.nm.us
Subject: Re: Scope of Work - Eldridge Ranch

Hello Bill,

We received your proposed scope of work for the installation of the monitor wells on the Eldridge Ranch. I have a few questions:

What is the approximate expected distance from the furthest up gradient to the furthest down gradient well?

Does the survey need to be performed by a licensed surveyor? When performing most surveys for monitor well elevation purposes for our projects, the fiield geologist or engineer trained in surveying performs the task. If litigation is possible with this Site, a licensed surveyor would be recommended.

According to the scope of services, no soil sampling will be required, correct?

Will all cuttings need to be drummed and disposed of or only hydrocarbon contaminated soils?

We are assuming all development water will need to be drummed for disposal, correct?

Thanks for your assistance,

Bob Wilcox, P.G.

Olson, William

From: Olson, William
Sent: Monday, February 12, 2001 1:56 PM
To: 'Bob Wilcox - AMEC'
Cc: Anderson, Roger; Wrotenbery, Lori; Williams, Chris; Wink, Gary
Subject: Scope of Work - Eldridge Ranch

Pursuant to our February 12, 2001 conversation, attached is a scope of work for an Oil Conservation Division ground water investigation at the Eldridge Ranch under the General Services Department Purchasing Division contract # 00-805-09-17658 . One issue that the OCD has not completely addressed is access. Mr. Eldridge has agreed to give the state access for drilling and sampling. However, he does not own the land north of his water well where some of the monitor wells will need to be placed. The OCD will need to negotiate access to this land prior to drilling.

I look forward to your response on a cost estimate for this project.

SCOPE.DOC

DRAFT

SCOPE OF WORK

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

NEW MEXICO OIL CONSERVATION DIVISION

INVESTIGATION OF GROUND WATER CONTAMINATION
OF
ELDRIDGE RANCH WATER WELLS

JANUARY 30, 2001

I. INTRODUCTION

A. PURPOSE

The State of New Mexico's Oil Conservation Division of the Energy, Minerals and Natural Resources Department (NMOCD) is conducting an investigation to determine the source of petroleum contamination of ground water of private water wells on the Eldridge Ranch north of Monument, New Mexico.

B. SUMMARY SCOPE OF WORK

The contractor shall perform the work necessary to determine the source of ground water contamination of the Eldridge Ranch water wells in accordance with the rules of the NMOCD. The scope of work includes, but is not limited to:

1. installation of ground water monitoring wells;
2. surveying monitor well locations, water wells and relevant site features
3. sampling ground water from monitor wells
4. removal and disposal of investigation derived wastes in a manner approved by the NMOCD;
5. preparation of an investigation report.

C. PROCUREMENT MANAGER

NMOCD has designated a Procurement Manager who is responsible for the conduct of this procurement whose name, address and telephone number are listed below.

William C. Olson
New Mexico Oil Conservation Division
1220 Saint Francis
Santa Fe, New Mexico 87505
Phone: 505-476-3491
Fax: 505-476-3462

All deliveries via express carrier should be addressed as above. Any inquiries or requests regarding this procurement should be submitted to the Procurement Manager in writing. Other state employees do not have the authority to respond on behalf of the Agency.

D. BACKGROUND INFORMATION

In September of 2000, the NMOCD was notified that an irrigation well and a separate household drinking water well on the property of Frank and Shelly Eldridge were contaminated with petroleum contaminants. The Eldridge Ranch is located in the SW/4 SE/4 of Section 21, Township 19 South, Range 37 East, Lea County, New Mexico. Subsequent site inspections have shown that the water wells are downgradient of a number of oilfield pipelines and oil and gas production sites. Samples taken from the irrigation well contain 6.08 mg/l benzene, 5.32 mg/l toluene, 0.157 mg/l ethylbenzene and 0.675 mg/l xylene (BTEX). An oily sheen was also observed on the surface of water purged from the irrigation well prior to sampling. Samples taken from the household drinking well contain 3.14 mg/l of benzene. Depth to ground water is estimated to vary from approximately 25 to 75 feet. The local ground water gradient is estimated to be toward the southeast. Investigation of the source of these contaminants is necessary to determine the party responsible for remediation of the site.

II. TECHNICAL SPECIFICATIONS

The contractor shall:

1. Install a minimum of five (5) 2-inch ground water monitoring wells between the Eldridge Ranch water wells and upgradient potential sources of contamination.

2. Log the lithology and volatile organic vapor concentrations with depth during the drilling of each monitor well.

3. Complete the ground water monitor wells as follows:

    a. At least 15 feet of well screen shall be placed across the water table interface with 5 feet of the well screen above the water table and 10 feet of the well screen below the water table.

    b. An appropriately sized gravel pack shall be set in the annulus around the well screen from the bottom of the hole to 2-3 feet above the top of the well screen.

    c. A 2-3 foot bentonite plug shall be placed above the gravel pack.

d. The remainder of the hole shall be grouted to the surface with cement containing 3-5% bentonite.

e. A concrete pad and locking well cover shall be placed around the well at the surface.

f. The well shall be developed after construction using EPA approved procedures.

4. Sample ground water from the monitor wells no less than 24 hours after the well is developed. The ground water from each monitor well must be purged, sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene, total petroleum hydrocarbons (TPH), total dissolved solids (TDS), major cations/anions and New Mexico Water Quality Control Commission (WQCC) metals using EPA approved methods and quality assurance/quality control (QA/QC) procedures.

5. Survey the locations of the monitor wells, water wells, potential sources of contamination and any other pertinent site features.

6. Remove and recycle or dispose of investigation derived wastes at an NMOCD-approved waste management facility.

7. Prepare and deliver to NMOCD an investigation report that contains:

   a. A description of the investigation activities which occurred including conclusions and recommendations.

   b. A geologic/lithologic log and well completion diagram for each monitor well.

   c. A water table map showing the location of the monitor wells, water wells, potential sources of contamination and any other pertinent site features as well as the direction and magnitude of the hydraulic gradient created using the water table elevation from each monitor well.

   d. Isopleth maps for contaminants observed during the investigations.

   e. Summary tables of all ground water quality sampling results and copies of all laboratory analytical data sheets and associated QA/QC data.

   f. The disposition of all wastes generated.

III. SCHEDULE

A. INITIATION OF WORK

Due to the public impacts at the site, drilling shall be scheduled to commence as soon as possible.

B. REPORT SUBMISSION

A report on the investigations shall be submitted to the NMOCD within 60 days of initiation of drilling.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Donna Williams
OCD Hobbs Office
1625 N. French Drive
Hobbs, NM 88240

Report Date: January 18, 2001

Order ID Number: A01011105

Project Number: Eldridge New Well
Project Name: N/A
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
162282	0110011130	Water	1/10/01	11:30	1/11/01
162283	0110011137	Water	1/10/01	11:37	1/11/01
162284	0110011144	Water	1/10/01	11:44	1/11/01

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, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 162282 - 0110011130

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC08219	Date Analyzed:	1/16/01
Analyst:	JW	Preparation Method:	5035	Prep Batch:	PB07168	Date Prepared:	1/16/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.104	mg/L	1	0.10	104	72 - 128
4-BFB		0.09	mg/L	1	0.10	90	72 - 128

Sample: 162283 - 0110011137

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC08219	Date Analyzed:	1/16/01
Analyst:	JW	Preparation Method:	5035	Prep Batch:	PB07168	Date Prepared:	1/16/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.508	mg/L	1	0.10	101	72 - 128
4-BFB		0.446	mg/L	1	0.10	89	72 - 128

Sample: 162284 - 0110011144

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC08196	Date Analyzed:	1/17/01
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB07145	Date Prepared:	1/17/01

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		160	mg/L as CaCo3	1	1
Total Alkalinity		160	mg/L as CaCo3	1	1

Sample: 162284 - 0110011144

Analysis:	Conductivity	Analytical Method:	SM 2510B	QC Batch:	QC08178	Date Analyzed:	1/16/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB07133	Date Prepared:	1/16/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		790	µMHOS/cm	1	

Sample: 162284 - 0110011144

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC08061 Date Analyzed: 1/11/01
Analyst: JS Preparation Method: N/A Prep Batch: PB07047 Date Prepared: 1/11/01

Param	Flag	Result	Units	Dilution	RDL
CL		60	mg/L	1	0.50
Fluoride		1.5	mg/L	1	0.20
Nitrate-N		2.9	mg/L	1	0.20
Sulfate		120	mg/L	1	0.50

Sample: 162284 - 0110011144

Analysis: Salts Analytical Method: S 6010B QC Batch: QC08241 Date Analyzed: 1/16/01
Analyst: RR Preparation Method: E 3005 A Prep Batch: PB07188 Date Prepared: 1/15/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		102	mg/L	1	0.05
Dissolved Magnesium		14	mg/L	1	0.05
Dissolved Potassium		4.9	mg/L	1	0.05
Dissolved Sodium		38	mg/L	1	0.05

Sample: 162284 - 0110011144

Analysis: TDS Analytical Method: E 160.1 QC Batch: QC08179 Date Analyzed: 1/16/01
Analyst: JS Preparation Method: N/A Prep Batch: PB07134 Date Prepared: 1/15/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		480	mg/L	1	10

Sample: 162284 - 0110011144

Analysis: pH Analytical Method: E 150.1 QC Batch: QC08237 Date Analyzed: 1/11/01
Analyst: RS Preparation Method: N/A Prep Batch: PB07184 Date Prepared: 1/11/01

Param	Flag	Result	Units	Dilution	RDL
pH	[1]	8.0	s.u.	1	1

[1] Sample run out of holding time, but was tested the day it was received.

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Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
4-BFB		0.095	mg/L	0.10	95	72 - 128

Method Blank

QCBatch: QC08241

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.05	mg/L	0.05
Dissolved Magnesium		<0.05	mg/L	0.05
Dissolved Potassium		<0.05	mg/L	0.05
Dissolved Sodium		<0.05	mg/L	0.05

Quality Control Report
Lab Control Spikes and Duplicate Spikes

LCS

QC Batch: QC08061

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		11.57	mg/L	1	12.50	<0.5	92		80 - 120	25
Fluoride		2.49	mg/L	1	2.50	<0.2	99		80 - 120	20
Nitrate-N		2.40	mg/L	1	2.50	<0.2	96		80 - 120	20
Sulfate		11.85	mg/L	1	12.50	<0.5	94		80 - 120	20

LCSD

QC Batch: QC08061

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		11.59	mg/L	1	12.50	<0.5	92	0	80 - 120	25
Fluoride		2.50	mg/L	1	2.50	<0.2	100	0	80 - 120	20
Nitrate-N		2.41	mg/L	1	2.50	<0.2	96	0	80 - 120	20
Sulfate		11.80	mg/L	1	12.50	<0.5	94	0	80 - 120	20

LCS

QC Batch: QC08219

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.108	mg/L	1	0.10	<0.001	108		80 - 120	20
Benzene		0.099	mg/L	1	0.10	<0.001	99		80 - 120	20
Toluene		0.096	mg/L	1	0.10	<0.001	96		80 - 120	20
Ethylbenzene		0.097	mg/L	1	0.10	<0.001	97		80 - 120	20
M,P,O-Xylene		0.269	mg/L	1	0.30	<0.001	89		80 - 120	20

Quality Control Report
Method Blank

Method Blank

QCBatch: QC08061

Param	Flag	Results	Units	Reporting Limit
CL		<0.5	mg/L	0.50
Fluoride		<0.2	mg/L	0.20
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<0.5	mg/L	0.50

Method Blank

QCBatch: QC08178

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		4.7	μMHOS/cm	

Method Blank

QCBatch: QC08179

Param	Flag	Results	Units	Reporting Limit
Total Dissolved Solids		<10	mg/L	10

Method Blank

QCBatch: QC08196

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.0	mg/L as CaCo3	1
Total Alkalinity		<4.0	mg/L as CaCo3	1

Method Blank

QCBatch: QC08219

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		0.108	mg/L	0.10	108	72 - 128

Continued ...

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.096	mg/L	1	0.10	96	72 - 128
4-BFB		0.09	mg/L	1	0.10	90	72 - 128

LCSD QC Batch: QC08219

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.11	mg/L	1	0.10	<0.001	110	2	80 - 120	20
Benzene		0.1	mg/L	1	0.10	<0.001	100	1	80 - 120	20
Toluene		0.097	mg/L	1	0.10	<0.001	97	1	80 - 120	20
Ethylbenzene		0.098	mg/L	1	0.10	<0.001	98	1	80 - 120	20
M,P,O-Xylene		0.269	mg/L	1	0.30	<0.001	89	0	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.098	mg/L	1	0.10	98	72 - 128
4-BFB		0.091	mg/L	1	0.10	91	72 - 128

LCS QC Batch: QC08241

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1054	mg/L	1	1000	<0.05	105		75 - 125	20
Dissolved Magnesium		1067	mg/L	1	1000	<0.05	106		75 - 125	20
Dissolved Potassium		1043	mg/L	1	1000	<0.05	104		75 - 125	20
Dissolved Sodium		1054	mg/L	1	1000	<0.05	105		75 - 125	20

LCSD QC Batch: QC08241

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1070	mg/L	1	1000	<0.05	107	2	75 - 125	20
Dissolved Magnesium		1050	mg/L	1	1000	<0.05	105	2	75 - 125	20
Dissolved Potassium		1040	mg/L	1	1000	<0.05	104	0	75 - 125	20
Dissolved Sodium		1050	mg/L	1	1000	<0.05	105	0	75 - 125	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

MS QC Batch: QC08061

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		117.97	mg/L	1	62.50	60	92		82 - 100	25
Fluoride		13.71	mg/L	1	12.50	1.5	97		81 - 109	20
Nitrate-N		14.69	mg/L	1	12.50	2.9	94		74 - 111	20
Sulfate		176.40	mg/L	1	62.50	120	90		81 - 106	20

MSD QC Batch: QC08061

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		118.72	mg/L	1	62.50	60	93	1	82 - 100	25
Fluoride		13.47	mg/L	1	12.50	1.5	95	2	81 - 109	20
Nitrate-N		14.70	mg/L	1	12.50	2.9	94	0	74 - 111	20
Sulfate		175.96	mg/L	1	62.50	120	89	1	81 - 106	20

MS QC Batch: QC08241

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1143	mg/L	1	1000	102	104		75 - 125	20
Dissolved Magnesium		1063	mg/L	1	1000	14	104		75 - 125	20
Dissolved Potassium		1046	mg/L	1	1000	4.9	104		75 - 125	20
Dissolved Sodium		1097	mg/L	1	1000	38	105		75 - 125	20

MSD QC Batch: QC08241

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1171	mg/L	1	1000	102	106	3	75 - 125	20
Dissolved Magnesium		1070	mg/L	1	1000	14	105	1	75 - 125	20
Dissolved Potassium		1060	mg/L	1	1000	4.9	105	1	75 - 125	20
Dissolved Sodium		1086	mg/L	1	1000	38	104	1	75 - 125	20

Quality Control Report
Duplicate Samples

Duplicate QC Batch: QC08178

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		772	790	μMHOS/cm	1	2	20

Duplicate

QC Batch: QC08179

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		2132	2100	mg/L	1	2	11

Duplicate

QC Batch: QC08196

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	11
Carbonate Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	11
Bicarbonate Alkalinity		162	160	mg/L as CaCo3	1	1	11
Total Alkalinity		162	160	mg/L as CaCo3	1	1	11

Duplicate

QC Batch: QC08237

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		8.3	8.3	s.u.	1	0	1.2

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QC Batch: QC08061

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	2.50	2.46	98	80 - 120	1/11/01
CL		mg/L	12.50	11.64	93	80 - 120	1/11/01
Fluoride		mg/L	2.50	2.53	101	80 - 120	1/11/01
Nitrate-N		mg/L	2.50	2.40	96	80 - 120	1/11/01
Sulfate		mg/L	12.50	11.80	94	80 - 120	1/11/01

ICV (1)

QC Batch: QC08061

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	2.50	2.41	96	80 - 120	1/11/01
CL		mg/L	12.50	11.56	92	80 - 120	1/11/01
Fluoride		mg/L	2.50	2.43	97	80 - 120	1/11/01
Nitrate-N		mg/L	2.50	2.40	96	80 - 120	1/11/01
Sulfate		mg/L	12.50	11.76	94	80 - 120	1/11/01

CCV (1) QC Batch: QC08178

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1413	1409	99	80 - 120	1/16/01

ICV (1) QC Batch: QC08178

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1413	1403	99	80 - 120	1/16/01

CCV (1) QC Batch: QC08179

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	991	99	80 - 120	1/16/01

ICV (1) QC Batch: QC08179

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	986	98	80 - 120	1/16/01

CCV (1) QC Batch: QC08196

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	1/17/01
Carbonate Alkalinity		mg/L as CaCo3	0	244	0	80 - 120	1/17/01
Bicarbonate Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	1/17/01
Total Alkalinity		mg/L as CaCo3	250	244	97	80 - 120	1/17/01

ICV (1) QC Batch: QC08196

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	4.0	0	80 - 120	1/17/01
Carbonate Alkalinity		mg/L as CaCo3	0	240	0	80 - 120	1/17/01
Bicarbonate Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	1/17/01

Continued ...

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	244	97	80 - 120	1/17/01

CCV (1) QC Batch: QC08219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.108	108	80 - 120	1/16/01
Benzene		mg/L	0.10	0.104	104	80 - 120	1/16/01
Toluene		mg/L	0.10	0.1	100	80 - 120	1/16/01
Ethylbenzene		mg/L	0.10	0.101	101	80 - 120	1/16/01
M,P,O-Xylene		mg/L	0.30	0.283	94	80 - 120	1/16/01

CCV (2) QC Batch: QC08219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.104	104	80 - 120	1/16/01
Benzene		mg/L	0.10	0.097	97	80 - 120	1/16/01
Toluene		mg/L	0.10	0.091	91	80 - 120	1/16/01
Ethylbenzene		mg/L	0.10	0.095	95	80 - 120	1/16/01
M,P,O-Xylene		mg/L	0.30	0.247	82	80 - 120	1/16/01

ICV (1) QC Batch: QC08219

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.105	105	80 - 120	1/16/01
Benzene		mg/L	0.10	0.099	99	80 - 120	1/16/01
Toluene		mg/L	0.10	0.096	96	80 - 120	1/16/01
Ethylbenzene		mg/L	0.10	0.097	97	80 - 120	1/16/01
M,P,O-Xylene		mg/L	0.30	0.271	90	80 - 120	1/16/01

CCV (1) QC Batch: QC08237

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.1	101	80 - 120	1/11/01

ICV (1) QC Batch: QC08237

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.1	101	80 - 120	1/11/01

CCV (1)

QC Batch: QC08241

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	25.5	102	75 - 125	1/16/01
Dissolved Magnesium		mg/L	25	25.1	100	75 - 125	1/16/01
Dissolved Potassium		mg/L	25	25.6	102	75 - 125	1/16/01
Dissolved Sodium		mg/L	25	25.9	103	75 - 125	1/16/01

ICV (1)

QC Batch: QC08241

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	24.8	99	75 - 125	1/16/01
Dissolved Magnesium		mg/L	25	24.6	98	75 - 125	1/16/01
Dissolved Potassium		mg/L	25	25.5	102	75 - 125	1/16/01
Dissolved Sodium		mg/L	25	25.5	102	75 - 125	1/16/01

Fed Ex Pick-up #41

[redacted]

Page_____of_____

TraceAnalysis, Inc.

6701 Aberdeen Ave, Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A0011105

Consulting Company Name: NMOCD
Phone #: 505-393-6161 X... 113
Consulting Company Address: 1625 N. French Dr. Hobbs, NM 88240
Fax #: 505-393-0720
Consulting Contact: DONNA Williams / Gary Wink
Equiva Contact:
Location/SAP:
Incident #
Location Address: ELDRIDGE - New well
Project Task:
Consultant Job#:
Sampler Signature: Donna Williams
Donna Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCL	HNO_3	$NaHSO_4$	H_2SO_4	ICE	NONE	SAMPLING: DATE	TIME
162282	0110011130			X					X						01-10-01	11:30
83	0110011137			X					X						01-10-01	11:37
84	0110011144			X									X		01-10-01	11:44

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB #	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Cations & Anions (OCD Contract #034)				Turn Around Time if different from standard	Hold
162282		X																			
83		X																			
84																X					

Relinquished by: Donna Williams Date: 01-10-01 Time: 3:42
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received at Laboratory by: Ricky Hensley Date: 1-11-01 Time: 10:am

LAB USE ONLY
Intact Y/N
Headspace Y/N
Temp 2 °
Log-in Review

REMARKS:
☐ Check if special reporting limits needed.

1/19/01

Carrier # Carrier

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of COC

ORIGINAL COPY

Equiva Services, LLC
General Terms and Conditions

Article 1: General

1.1 The words "we", "us", and "our" refer to Equiva Services, LLC. You will deliver samples to us for analysis, accompanied, or preceded by, a signed Chain of Custody/Analysis Request defining the scope and timing of our work and stating either the testing criteria you require or identifying the agency to which the results will be submitted.

Article 2: Our General Responsibilities

2.1 We agree to provide the professional services described in this agreement. We will provide you with written reports containing analytical results. In performing our service, we will use that degree of care and skill ordinarily exercised under similar circumstances by reputable members of our profession practicing in the same locality.

2.2 Test and observations will be conducted using test procedures and laboratory protocols as specified in accepted Chain of Custody/Analysis Request. If you direct a manner of making tests that varies from our standard or recommended procedures, you agree to hold us harmless from all claims, damages, and expenses arising out of your direction.

2.3 We will not release information regarding our services for you or any information that we receive from you, except for information that is in the public domain and except as we are required by law.

Article 3: Your General Responsibilities

3.1 On each Chain of Custody/Analysis Request you will designate a representative who has authority to transmit instructions, receive information, and make decisions relative to our work.

3.2 You will respond in a reasonable time to our request for decisions, authorization for changes, additional compensation, or schedule extensions.

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 agency under which or for which the analysis are to be prepared. If permits, consent orders, work plans, quality assurance plans, or correspondence with regulatory agencies address laboratory requirements, you will provide us with copies of the relevant provisions prior to our initiation of the analyses.

Article 4: Reports and Records

4.1 We will furnish copies of each report to you as specified in the Chain of Custody and Analysis Request. We will retain analytical data for seven years and financial data for three years relating to the services performed following transmittal of our final report.

4.2 If you do not pay for our services as agreed, you agree that we may retain all reports and work not yet delivered to you. You also agree that our work will not be used by you for any purpose unless paid for.

Article 5: Delivery and Acceptance of Samples

5.1 Until we accept delivery of samples by notation on chain of custody documents or otherwise in writing accept the samples, you are responsible for loss of or damage to samples. Until so accepted, we have no responsibility as to samples.

5.2 As to any samples that are suspected of containing hazardous substances or radioactive material, such that would make special handling required, you will specify the suspected or known substances and level and type of radioactive activity. This information will be given to us in writing as a part of the Chain of Custody/Analysis Request and will precede or accompany samples suspected of containing hazardous substances

5.3 Samples accepted by us remain your property while in our custody. We will retain samples for a period of 14 days following the date of submission or our report. We will extend the retention period if you so direct. Following the retention period we will dispose of non-hazardous samples. We may return highly hazardous, acutely toxic, or radioactive samples and samples containers and residues to you. You agree to accept them.

5.4 Regardless of a prior acceptance, we may refuse acceptance or revoke acceptance of samples if we determine that the samples present a risk to health, safety, or the environment, or that we are not authorized to accept them. If we revoke acceptance of any sample, you will have it removed from our facilities promptly.

Article 6: Changes to Task Orders

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 promptly if we identify 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, and cause of the activity regarded as a change. 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 amendment. The amendment 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.

Article 7: Compensation

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 firm figure unless stated as such.

7.2 Unless otherwise 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 particular item that is alleged to be incorrect. 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 invoice at the rate of 1.5% per month, but not to 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 ultimately responsible for our compensation until you provide us with that third party's written acceptance of all terms of our agreement and until we agree to the substitution.

7.4 You agree to compensate us for our services and expenses if we are required to respond to legal process related to our services for you. Compensable services include hourly charges for all personnel involved in 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 of capital.

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 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 litigation, including reasonable attorney's fees. If we bring lawsuit against you to collect our invoiced fees and expenses, you agree to pay our reasonable collection expenses including attorney fees.

Article 9: Indemnities

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 and against demands, damages, and expenses caused by your 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 indemnities are subject to specific limitations provided for in this agreement.

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 performance, 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 limited to Acts of God, civil unrest and war, labor unrest and strikes, equipment failures, matrix interference, acts of authorities, and failures of subcontractors that could not be reasonably anticipated.

10.5 You may stop our work by giving a written suspension or termination directive, but once work has been suspended, we need not resume work until we agree to change in scope, schedule, and compensation. Upon 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 responsibility for meeting holding time limitations after the effective time of a suspension or termination directive. We will be compensated for service rendered and expenses incurred prior to termination that cannot reasonably be avoided.

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

ELDRIDGE Ranch

Lori Wrotenbery
Director
Oil Conservation Division

Dynegy
Attn: Jerry Collins
P.O. Box 1909
Eunice, New Mexico 88231

MEMORANDUM

TO: Sid Richardson, Duke Energy, Dynegy & LG&E - Special Pressure Testing Area

FROM: State of New Mexico Oil Conservation Division District I

SUBJECT: Special Testing in Section 21 of T19S-R37E

DATE: November 27, 2000

Gentlemen:

A special pressure survey will be conducted of the pipelines in section 21, Township 19 South, Range 37 East, as soon as possible. A time and place needs to be arranged with this office for company personnel and inspectors to meet. In order to save time, please contact Chris Williams the District I Supervisor with the NMOCD at (505) 393-6161 ext..102 during the week of December the 4th. Please submit telephone numbers and names of responsible company personnel where they can be reached in case of a delay. The New Mexico Oil Conservation Division (NMOCD) requires the following information at the time of test:

- Provide the NMOCD with a map of the area referenced above showing all lines.
- Provide information concerning the pipelines in the area such as:
  - Pipe size
  - Working Pressure
  - Burst Pressure
  - Leak Reports within the last 3 years (all internal reports needs to be included regardless of size)
  - Line type: ie..gathering, liquids, crude oil, transmission
  - Location of "Old Drip Tanks"

Sincerely,

Chris Williams

Chris Williams – District I Supervisor
cc: Roger Anderson – Environmental Bureau Chief
Bill Olson - Hydrologist

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

Sid Richardson
Attn: Randall Dunn
P.O. Box 1311
Jal, New Mexico 88252

MEMORANDUM

TO: Sid Richardson, Duke Energy, Dynegy & LG&E - Special Pressure Testing Area

FROM: State of New Mexico Oil Conservation Division District I

SUBJECT: Special Testing in Section 21 of T19S-R37E

DATE: November 27, 2000

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Chris Williams

Chris Williams – District I Supervisor
cc: Roger Anderson – Environmental Bureau Chief
Bill Olson - Hydrologist

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

Duke Oil & Gas, Inc.
Attn: Marvin A. Duke
319 W. Broadway Suite A
Odessa, Texas 79714

MEMORANDUM

TO: Sid Richardson, Duke Energy, Dynegy & LG&E - Special Pressure Testing Area

FROM: State of New Mexico Oil Conservation Division District I

SUBJECT: Special Testing in Section 21 of T19S-R37E

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Chris Williams

Chris Williams – District I Supervisor
cc: Roger Anderson – Environmental Bureau Chief
Bill Olson - Hydrologist

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

LG&E
Attn: Phil Elliot
921 W. Sanger
Hobbs, New Mexico 88240

MEMORANDUM

TO: Sid Richardson, Duke Energy, Dynegy & LG&E - Special Pressure Testing Area

FROM: State of New Mexico Oil Conservation Division District I

SUBJECT: Special Testing in Section 21 of T19S-R37E

DATE: November 27, 2000

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Sincerely,

Chris Williams

Chris Williams – District I Supervisor
cc: Roger Anderson – Environmental Bureau Chief
Bill Olson - Hydrologist

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

Bill, For your file

ELDRIDGE RANCH

Chevron USA (CUSA)
Attn: Nathan Mauser
P.O. Box 1949
Eunice, New Mexico 88231

MEMORANDUM

TO: OXY USA Inc., Amerada Hess Corporation, Chevron - Special Bradenhead Test Area

FROM: State of New Mexico Oil Conservation Division District I

SUBJECT: Special Testing Section 21 of T19S-R37E

DATE: November 22, 2000

Gentlemen:

A special bradenhead survey will be conducted on your leases on December 5th, 2000. The survey is in section 21 of Township 19 South, Range 37 East. In order to save time, please have the necessary equipment and personnel available for reading the pressures on the tubing and casing strings. We will have several inspectors ready and available to monitor the inspections. A time and place needs to be arranged with this office for company personnel and inspectors to meet. Please submit telephone numbers of company personnel where they can be reached in case of a delay.

The phone numbers of OCD Field Inspectors are listed below.

Gary Wink	- Field Inspector Supervisor	505-393-6161	393-6161ext..114
Buddy Hill	- Field Inspector	505-369-6234	393-6161ext..105
E.L. Gonzales	- Field Inspector	505-370-1713	393-6161ext..105
Johnny Robinson	- Field Inspector	505-369-6230	393-6161ext..106

A testing schedule is attached for your company.

Sincerely,

Chris Williams

Chris Williams – District I Supervisor

cc: Roger Anderson – Environmental Bureau Chief
Bill Olson - Hydrologist

Well Selection Criteria Quick Print

(WH_SEC = 21 and WH_TWPN = 19 and WH_RNGN = 37)

API Well #	Well Name and No.		Operator Name	Typ	Stat	County	Surf	UL	Sec	Twp	Rng	Ft N/S	Ft E/W	UICPrmt
30-025-23038-00-00	EAST EUMONT UNIT	849	OXY USA INC	I	T	Lea	S	A	21	19 S	37 E	710 N	510 E	R-2901
30-025-23346-00-00	NORTH MONUMENT G/SA UNIT	004	AMERADA HESS CORP	O	A	Lea	S	D	21	19 S	37 E	990 N	330 W	
30-025-23208-00-00	NORTH MONUMENT G/SA UNIT	005	AMERADA HESS CORP	O	A	Lea	S	E	21	19 S	37 E	2310 N	330 W	
30-025-05673-00-00	ELBERT SHIPP NCT A COM	001	CHEVRON U S A INC	G	A	Lea	P	F	21	19 S	37 E	1980 N	1980 W	
30-025-05670-00-00	EAST EUMONT UNIT	055	OXY USA INC	I	P	Lea	P	I	21	19 S	37 E	1971 S	330 E	
30-025-05679-00-00	HUSTON COM	001	MEWBOURNE OIL CO	O	P	Lea	P	K	21	19 S	37 E	1650 S	1830 W	
30-025-05675-00-00	NORTH MONUMENT G/SA UNIT	011K	AMERADA HESS CORP	G	A	Lea	P	K	21	19 S	37 E	1650 S	1650 W	
30-025-05674-00-00	NORTH MONUMENT G/SA UNIT	012	AMERADA HESS CORP	O	A	Lea	S	L	21	19 S	37 E	1980 S	660 W	
30-025-33746-00-00	HUSTON COM	002	MEWBOURNE OIL CO	G	A	Lea	P	M	21	19 S	37 E	990 S	860 W	
30-025-05672-00-00	NORTH MONUMENT G/SA UNIT	013	AMERADA HESS CORP	I	A	Lea	S	M	21	19 S	37 E	660 S	660 W	R-9596
30-025-05676-00-00	SINCLAIR FEDERAL	002	C E LONG	O	P	Lea	F	N	21	19 S	37 E	660 S	1650 W	
30-025-05678-00-00	EAST EUMONT UNIT	057	OXY USA INC	O	P	Lea	P	P	21	19 S	37 E	990 S	330 E	

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

OXY USA Inc.
Attn: Joe Gibson
P.O. Box 269
Hobbs, New Mexico 88240

MEMORANDUM

TO: OXY USA Inc., Amerada Hess Corporation, Chevron - Special Bradenhead Test Area

FROM: State of New Mexico Oil Conservation Division District I

SUBJECT: Special Testing Section 21 of T19S-R37E

DATE: November 22, 2000

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Chris Williams – District I Supervisor

cc: Roger Anderson – Environmental Bureau Chief
Bill Olson - Hydrologist

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NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
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Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

Amerada Hess Corp.
Attn: Rob Williams / Randy Barnes
P.O. Box 840
Seminole, Texas 79360

MEMORANDUM

TO: OXY USA Inc., Amerada Hess Corporation, Chevron - Special Bradenhead Test Area

FROM: State of New Mexico Oil Conservation Division District I

SUBJECT: Special Testing Section 21 of T19S-R37E

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Chris Williams – District I Supervisor

cc: Roger Anderson – Environmental Bureau Chief
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API Well #	Well Name and No.		Operator Name	Typ	Stat	County	Surf	UL	Sec	Twp	Rng	Ft N/S	Ft E/W	UICPrmt
30-025-23038-00-00	EAST EUMONT UNIT	849	OXY USA INC	I	T	Lea	S	A	21	19 S	37 E	710 N	510 E	R-2901
30-025-23346-00-00	NORTH MONUMENT G/SA UNIT	004	AMERADA HESS CORP	O	A	Lea	S	D	21	19 S	37 E	990 N	330 W	
30-025-23208-00-00	NORTH MONUMENT G/SA UNIT	005	AMERADA HESS CORP	O	A	Lea	S	E	21	19 S	37 E	2310 N	330 W	
30-025-05673-00-00	ELBERT SHIPP NCT A COM	001	CHEVRON U S A INC	G	A	Lea	P	F	21	19 S	37 E	1980 N	1980 W	
30-025-05670-00-00	EAST EUMONT UNIT	055	OXY USA INC	I	P	Lea	P	I	21	19 S	37 E	1971 S	330 E	
30-025-05679-00-00	HUSTON COM	001	MEWBOURNE OIL CO	O	P	Lea	P	K	21	19 S	37 E	1650 S	1830 W	
30-025-05675-00-00	NORTH MONUMENT G/SA UNIT	011K	AMERADA HESS CORP	G	A	Lea	P	K	21	19 S	37 E	1650 S	1650 W	
30-025-05674-00-00	NORTH MONUMENT G/SA UNIT	012	AMERADA HESS CORP	O	A	Lea	S	L	21	19 S	37 E	1980 S	660 W	
30-025-33746-00-00	HUSTON COM	002	MEWBOURNE OIL CO	G	A	Lea	P	M	21	19 S	37 E	990 S	860 W	
30-025-05672-00-00	NORTH MONUMENT G/SA UNIT	013	AMERADA HESS CORP	I	A	Lea	S	M	21	19 S	37 E	660 S	660 W	R-9596
30-025-05676-00-00	SINCLAIR FEDERAL	002	C E LONG	O	P	Lea	F	N	21	19 S	37 E	660 S	1650 W	
30-025-05678-00-00	EAST EUMONT UNIT	057	OXY USA INC	O	P	Lea	P	P	21	19 S	37 E	990 S	330 E	

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

FAX COVER SHEET

TO: Donna Williams

COMPANY: OCD

DATE: 11-7-00

FAX NO: 505-827-8177

NO OF PAGES FOLLOWING: 2

FROM: Mell

MESSAGE: BTEX results for Eldridge. We are still working on the other tests & should finish by Friday. The complete report will be faxed when its ready.

PLEASE CALL IMMEDIATELY IF THERE ARE ANY PROBLEMS IN RECEIVING THIS TRANSMISSION.

TRACEANALYSIS, INC.
A Laboratory For Advanced
Environmental Research and Analysis

Report Date: November 1, 2000 | Order Number: A00102732 | Page Number: 1 of 2
N/A | Eldridge | Eldridge Ranch

Sample: 157317 - 114010262000 (Kitchen)

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC06097	Date Analyzed:	10/30/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB05307	Date Prepared:	10/30/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		1.78	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		0.005	mg/L	1	0.001
Total BTEX		1.79	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.09	mg/L	1	0.10	90	72 - 128
4-BFB		0.077	mg/L	1	0.10	77	72 - 128

Sample: 157318 - 12510262000 (House Well)

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC06097	Date Analyzed:	10/30/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB05307	Date Prepared:	10/30/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		3.14	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		3.14	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.497	mg/L	1	0.10	99	72 - 128
4-BFB		0.457	mg/L	1	0.10	91	72 - 128

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC06097	Date Analyzed:	10/30/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB05307	Date Prepared:	10/30/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		6.08	mg/L	10	0.001
Toluene		5.32	mg/L	10	0.001
Ethylbenzene		0.157	mg/L	10	0.001
M,P,O-Xylene		0.675	mg/L	10	0.001
Total BTEX		12.2	mg/L	10	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.973	mg/L	1	0.10	97	72 - 128

Continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-BFB		0.935	mg/L	1	0.10	93	72 128

Sample: CCV (1)

QC Batch: QC06097

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.093	93	80 - 120	10/30/00
Toluene		mg/L	0.10	0.088	88	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.089	89	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.288	96	80 - 120	10/30/00

Sample: CCV (2)

QC Batch: QC06097

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.096	96	80 120	10/30/00
Toluene		mg/L	0.10	0.092	92	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.091	91	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.31	103	80 - 120	10/30/00

Sample: ICV (1)

QC Batch: QC06097

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.099	99	80 - 120	10/30/00
Toluene		mg/L	0.10	0.094	94	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.095	95	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.314	104	80 - 120	10/30/00

Oil Conservation Division
1625 N. French Dr.
Hobbs, NM 88240

Memo

To: Eldridge Ranch File

From: Donna Williams

Date: 10/27/00

Re: Water Sampling Event

10-26-00: I went to the Eldridge home to take some water samples in conjunction with The Environmental Department, T.C. Shapard, out of Roswell. I collected samples out of the kitchen faucet after allowing it to run approximately 10 minutes. I collected water samples in 2-40 ml vials to run BTEX on it. I also collected water for water analysis of the house water well outside and of the irrigation water well. I collected 2-40 ml vials for BTEX, 1-1 liter for PAH's, 1-1 liter for cations/anions, and 1-60 oz. Bottle for WQCC Metals.

I could smell an odor while the water was running at the kitchen sink. (a definite odor – gassy smell) I did not notice anything at the house water well due to the purging was performed with a water hose and the hose was a distance away from the well house. But when I went to the irrigation water well...while still in my truck I noticed a horrible odor...gassy...maybe H2S...butane??.... It wasn't until I had gotten out of my truck to try to figure out the smell when I realized it was coming from the water that was running to purge the well. It was a powerful odor and I was at a distance of about 10 feet or so away from the running water and in my truck when I first noticed it. When I approached the running water the odor was detected...it was strong! I was shocked that the odor I smelled was from the water!

After visiting with Shelly Eldridge and Frank Eldridge I had asked them to recap, to the best of their knowledge and in sequence, when this had started. Shelly said she started smelling a "gas" smell around February and starting "tasting" it at the end of March and the beginning of April time frame. She said she noticed getting more frequent headaches around March. And the last couple of weeks they have been constant. She stated she had been to the hospital for severe pains in her stomach area (up high) and the doctors checked her gallbladder for stones and performed an upper G.I. and they found nothing. A week later she ended up in the hospital again for severe pains and they then hospitalized her for 3 days. All the while not knowing what was wrong with her and the doctors not knowing.

Frank Eldridge stated he has fertilized his fields in February and started watering, as usual. He also added Rye, Wheat, and extra Alfalfa. He stated "it is all dead" nothing grew as a matter of fact it just died and it wasn't due to the lack of watering, he said I watered constantly. Frank stated also he waters his livestock from this same water and they have a pond behind their house that he keeps stocked with fish. He stated they all died in June they are guessing around Father's Day is when they first started noticing the dead fish. He stated his horse seems to have a urinary problem at their Ranch. Said when he had taken his horse into town to a friend's corral he appeared to be better, but here at the ranch he is not doing well. Frank stated he has 12 cows that he believes should be calving soon, he seems to

think they should have had them by now. It leaves a question in his mind if there isn't something wrong with them? He said "but all twelve?" In June he had a calf to die, he said the reason was unknown....but it could be related?

The Eldridge family had been drinking from this water up until the first part of this week. Mrs. Eldridge says she had been buying bottled water after her attacks. This is their home, their land, their livelihood and they cannot even bring the grandkids over to their home because of the water. They do not want to expose the kids to the water.

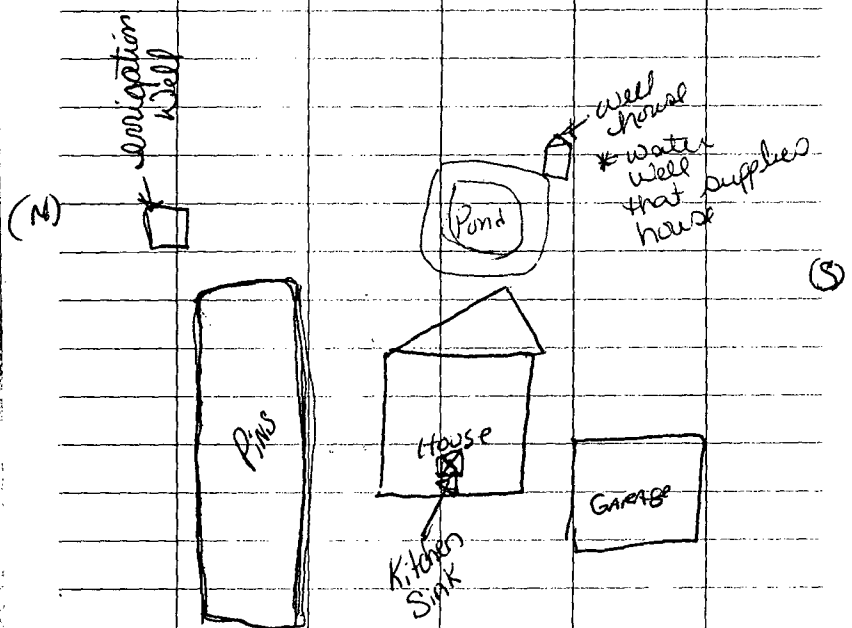
The Environmental Department (E.D.) collected samples today as well. Tomorrow E.D. will have the Eldridge's a water tank at their home for a source of fresh water. We will perform a one-mile radius check for any possible source(s) of the contamination to the groundwater.

10-26-00

(E)

* Odor Coming from Kitchen Sink
* " " from house Water Well
* odor - extreme odor !! real Bad!

Smell like "Gas"



* ELDRIDGE Ranch (DW)
- FRANK ELDRIDGE P.O. Box 153 Monument, NM 88265
- OCD - DONNA WILLIAMS
- E.D. (Environmental Dept.) will have Personnel on site (RCRA)

- Water Sampling of water wells.

393-5552 - House - Eldridge
888-451-1825 Beeper - "

Sample #1 : Kitchen Sink
Sample ID: 1140102620000
2 - VOC vials HCL Preservative
RUN → 8021

Sample #2: House Water Well
Sample ID: 1205 10262000
BTEX - 2 vials
PAH - Amber bottle
Cations/Anions - plastic Bottle
OCD metals - plastic Bottle w/ HNO_3 preservative

Sample #3: Irrigation well
Sample ID #1235102620000
- BTEX - Cations/Anions
- PAH - OCD metals

10-26-00 DW

Frank states he fertilized in February and started watering Rye - Wheat & Alfalfa all is dead - Not due to Lack of watering - he has water constantly.

* Frank Waters livestock from this water.

- Cows - 3 haven't calfed yet ? questions breeding / birthing due to unknown reasons.

(Total 12)

2 - Calves has been born w/in the year - ~~last~~
* one born in June died

- horse appears to have a urinary problem. ? while at Ranch

* While in Town - he was fine

Shelly Eldridge

States - she started smelling gas ≈ around February - started tasting it end of March first of April.

- more frequent headaches started around March

- last couple of weeks constant headaches

- she has been hospitalized in end of April ≈ Friday 27th

- again on Friday May 5th

*all Fish died in June (Father's Day) Frank stocks pond w/ fish * all died

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Bill Olson
OCD
2040 S. Pacheco
Santa Fe, NM 87505

Report Date: November 17, 2000

Order ID Number: A00102732

Project Number: N/A
Project Name: Eldridge
Project Location: Eldridge Ranch

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
157317	114010262000 (Kitchen)	Water	10/26/00	:	10/27/00
157318	12510262000 (House Well)	Water	10/26/00	:	10/27/00
157319	123510262000 (Irrigation Well)	Water	10/26/00	:	10/27/00

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 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical and Quality Control Report

Sample: 157317 - 114010262000 (Kitchen)

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC06097	Date Analyzed:	10/30/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB05307	Date Prepared:	10/30/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		1.78	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		0.005	mg/L	1	0.001
Total BTEX		1.79	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.09	mg/L	1	0.10	90	72 - 128
4-BFB		0.077	mg/L	1	0.10	77	72 - 128

Sample: 157318 - 12510262000 (House Well)

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC06329	Date Analyzed:	11/7/00
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB05525	Date Prepared:	11/7/00

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		276	mg/L as CaCo3	1	1
Total Alkalinity		276	mg/L as CaCo3	1	1

Sample: 157318 - 12510262000 (House Well)

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC06097	Date Analyzed:	10/30/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB05307	Date Prepared:	10/30/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		3.14	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		3.14	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.497	mg/L	1	0.10	99	72 - 128
4-BFB		0.457	mg/L	1	0.10	91	72 - 128

Sample: 157318 - 12510262000 (House Well)

Analysis: Conductivity Analytical Method: SM 2510B QC Batch: QC06055 Date Analyzed: 10/30/00
Analyst: JS Preparation Method: N/A Prep Batch: PB05305 Date Prepared: 10/30/00

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		910	μMHOS/cm	1	

Sample: 157318 - 12510262000 (House Well)

Analysis: Dissolved Metals Analytical Method: E 200.7 QC Batch: QC06382 Date Analyzed: 11/9/00
Analyst: RR Preparation Method: E 3005A Prep Batch: PB05246 Date Prepared: 10/30/00

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		100	mg/L	50	0.05
Dissolved Magnesium		15.3	mg/L	50	0.05
Dissolved Potassium		18.1	mg/L	50	0.05
Dissolved Sodium		55.1	mg/L	50	0.05

Sample: 157318 - 12510262000 (House Well)

Analysis: Hg, Total Analytical Method: S 7470A QC Batch: QC06385 Date Analyzed: 10/30/00
Analyst: SSC Preparation Method: N/A Prep Batch: PB05579 Date Prepared: 10/30/00

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 157318 - 12510262000 (House Well)

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05995 Date Analyzed: 10/27/00
Analyst: JS Preparation Method: N/A Prep Batch: PB05247 Date Prepared: 10/27/00

Param	Flag	Result	Units	Dilution	RDL
CL		80	mg/L	1	0.50
Fluoride	[1]	1.9	mg/L	1	0.20
Nitrate-N		4.0	mg/L	1	0.20
Sulfate		55	mg/L	1	0.50

Sample: 157318 - 12510262000 (House Well)

Analysis: PAH Analytical Method: S 8270C QC Batch: QC06363 Date Analyzed: 11/7/00
Analyst: MA Preparation Method: E 3510C Prep Batch: PB05557 Date Prepared: 10/31/00

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005

Continued ...

[1]Fluoride re-ran on IC110600-3.sch. ICV %IA = 94; CCV %IA = 92; Blank spikes RPD = 0; Blank spikes %EA = 92. Blank spikes used because I'm re-running the sample that I spiked.

... *Continued* Sample: 157318 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		68.22	mg/L	1	80	85	36 - 107
2-Fluorobiphenyl		65.40	mg/L	1	80	81	54 - 97
Terphenyl-d14		75.92	mg/L	1	80	94	0 - 113

Sample: 157318 - 12510262000 (House Well)

Analysis:	TDS	Analytical Method:	E 160.1	QC Batch:	QC06275	Date Analyzed:	11/2/00
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB05481	Date Prepared:	11/1/00

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		590	mg/L	1	10

Sample: 157318 - 12510262000 (House Well)

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC06408	Date Analyzed:	11/9/00
Analyst:	RR	Preparation Method:	E 3010A	Prep Batch:	PB05245	Date Prepared:	10/30/00

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		0.05	mg/L	1	0.01
Total Arsenic		0.02	mg/L	1	0.01
Total Barium		0.11	mg/L	1	0.01
Total Beryllium		<0.01	mg/L	1	0.01
Total Boron		0.187	mg/L	1	0.01
Total Cadmium		<0.002	mg/L	1	0.002
Total Chromium		<0.005	mg/L	1	0.005
Total Cobalt		<0.01	mg/L	1	0.01
Total Copper		<0.01	mg/L	1	0.01
Total Iron		<0.02	mg/L	1	0.02
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		<0.001	mg/L	1	0.001
Total Molybdenum		<0.002	mg/L	1	0.002
Total Nickel		<0.01	mg/L	1	0.01
Total Selenium		<0.01	mg/L	1	0.01

Continued ...

... *Continued* Sample: 157318 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Silica		23.4	mg/L	10	0.50
Total Silver		<0.01	mg/L	1	0.01
Total Thallium		0.012	mg/L	1	0.01
Total Zinc		<0.1	mg/L	1	0.10

Sample: 157318 - 12510262000 (House Well)

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC06183	Date Analyzed:	10/27/00
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB05399	Date Prepared:	10/27/00

Param	Flag	Result	Units	Dilution	RDL
pH	[2]	7.6	s.u.	1	1

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC06329	Date Analyzed:	11/7/00
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB05525	Date Prepared:	11/7/00

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		260	mg/L as CaCo3	1	1
Total Alkalinity		260	mg/L as CaCo3	1	1

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC06097	Date Analyzed:	10/30/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB05307	Date Prepared:	10/30/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		6.08	mg/L	10	0.001
Toluene		5.32	mg/L	10	0.001
Ethylbenzene		0.157	mg/L	10	0.001
M,P,O-Xylene		0.675	mg/L	10	0.001
Total BTEX		12.2	mg/L	10	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.973	mg/L	1	0.10	97	72 - 128
4-BFB		0.935	mg/L	1	0.10	93	72 - 128

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis:	Conductivity	Analytical Method:	SM 2510B	QC Batch:	QC06055	Date Analyzed:	10/30/00
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB05305	Date Prepared:	10/30/00

[2] Out of holding time.

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		780	μMHOS/cm	1	

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis: Dissolved Metals Analytical Method: E 200.7 QC Batch: QC06382 Date Analyzed: 11/9/00
Analyst: RR Preparation Method: E 3005A Prep Batch: PB05246 Date Prepared: 10/30/00

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		98.3	mg/L	50	0.05
Dissolved Magnesium		12.5	mg/L	50	0.05
Dissolved Potassium		14.9	mg/L	50	0.05
Dissolved Sodium		59.4	mg/L	50	0.05

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis: Hg, Total Analytical Method: S 7470A QC Batch: QC06385 Date Analyzed: 10/30/00
Analyst: SSC Preparation Method: N/A Prep Batch: PB05579 Date Prepared: 10/30/00

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05995 Date Analyzed: 10/27/00
Analyst: JS Preparation Method: N/A Prep Batch: PB05247 Date Prepared: 10/27/00

Param	Flag	Result	Units	Dilution	RDL
CL		60	mg/L	1	0.50
Fluoride	[3]	1.6	mg/L	1	0.20
Nitrate-N		<1.0	mg/L	1	0.20
Sulfate		38	mg/L	1	0.50

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis: PAH Analytical Method: S 8270C QC Batch: QC06363 Date Analyzed: 11/7/00
Analyst: MA Preparation Method: E 3510C Prep Batch: PB05557 Date Prepared: 10/31/00

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005

Continued ...

[3]Fluoride re-ran on IC110600-3.sch. ICV %IA = 94; CCV %IA = 92; Blank spikes RPD = 0; Blank spikes %EA = 92. Blank spikes used because I'm re-running the sample that I spiked.

... *Continued* Sample: 157319 Analysis: PAH

Param	Flag	Result	Units	Dilution	RDL
Benzo(a)anthracene		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		57.35	mg/L	1	80	71	36 - 107
2-Fluorobiphenyl		58.52	mg/L	1	80	73	54 - 97
Terphenyl-d14		67.42	mg/L	1	80	84	0 - 113

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis:	TDS	Analytical Method:	E 160.1	QC Batch:	QC06275	Date Analyzed:	11/2/00
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB05481	Date Prepared:	11/1/00

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		490	mg/L	1	10

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC06408	Date Analyzed:	11/9/00
Analyst:	RR	Preparation Method:	E 3010A	Prep Batch:	PB05245	Date Prepared:	10/30/00

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		0.02	mg/L	1	0.01
Total Arsenic		0.02	mg/L	1	0.01
Total Barium		0.19	mg/L	1	0.01
Total Beryllium		<0.01	mg/L	1	0.01
Total Boron		0.134	mg/L	1	0.01
Total Cadmium		<0.002	mg/L	1	0.002
Total Chromium		<0.005	mg/L	1	0.005
Total Cobalt		<0.01	mg/L	1	0.01
Total Copper		<0.01	mg/L	1	0.01
Total Iron		0.02	mg/L	1	0.02
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		0.174	mg/L	1	0.001
Total Molybdenum		<0.002	mg/L	1	0.002
Total Nickel		<0.01	mg/L	1	0.01
Total Selenium		<0.01	mg/L	1	0.01
Total Silica		21.4	mg/L	10	0.50
Total Silver		<0.01	mg/L	1	0.01
Total Thallium		<0.01	mg/L	1	0.01
Total Zinc		<0.1	mg/L	1	0.10

Sample: 157319 - 123510262000 (Irrigation Well)

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC06183	Date Analyzed:	10/27/00
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB05399	Date Prepared:	10/27/00

Param	Flag	Result	Units	Dilution	RDL
pH	[4]	7.4	s.u.	1	1

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC05995

Param	Flag	Results	Units	Reporting Limit
CL		<0.5	mg/L	0.50
Fluoride		<0.2	mg/L	0.20
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<0.5	mg/L	0.50

Sample: Method Blank QCBatch: QC06055

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		2.3	μMHOS/cm	

Sample: Method Blank QCBatch: QC06097

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		0.103	mg/L	0.10	103	72 - 128
4-BFB		0.091	mg/L	0.10	91	72 - 128

[4] Out of holding time.

Sample: Method Blank QCBatch: QC06275

Param	Flag	Results	Units	Reporting Limit
Total Dissolved Solids		<10	mg/L	10

Sample: Method Blank QCBatch: QC06329

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.0	mg/L as CaCo3	1
Total Alkalinity		<4.0	mg/L as CaCo3	1

Sample: Method Blank QCBatch: QC06363

Param	Flag	Results	Units	Reporting Limit
Naphthalene		<0.005	mg/L	0.005
Acenaphthylene		<0.005	mg/L	0.005
Acenaphthene		<0.005	mg/L	0.005
Fluorene		<0.005	mg/L	0.005
Phenanthrene		<0.005	mg/L	0.005
Anthracene		<0.005	mg/L	0.005
Fluoranthene		<0.005	mg/L	0.005
Pyrene		<0.005	mg/L	0.005
Benzo(a)anthracene		<0.005	mg/L	0.005
Chrysene		<0.005	mg/L	0.005
Benzo(b)fluoranthene		<0.005	mg/L	0.005
Benzo(k)fluoranthene		<0.005	mg/L	0.005
Benzo(a)pyrene		<0.005	mg/L	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	0.005

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		46.33	mg/L	80	57	36 - 107
2-Fluorobiphenyl		46.06	mg/L	80	57	54 - 97
Terphenyl-d14		66.75	mg/L	80	83	0 - 113

Sample: Method Blank QCBatch: QC06382

Continued ...

... Continued

Param	Flag	Results	Units	Reporting Limit

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.05	mg/L	0.05
Dissolved Magnesium		<0.05	mg/L	0.05
Dissolved Potassium		0.255	mg/L	0.05
Dissolved Sodium		0.165	mg/L	0.05

Sample: Method Blank QCBatch: QC06385

Param	Flag	Results	Units	Reporting Limit
Total Mercury		<0.0002	mg/L	0.0002

Sample: Method Blank QCBatch: QC06408

Param	Flag	Results	Units	Reporting Limit
Total Silica		<0.5	mg/L	0.50

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC06097

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.1	mg/L	1	0.10	<0.001	100		80 - 120	20
Benzene		0.096	mg/L	1	0.10	<0.001	96		80 - 120	20
Toluene		0.091	mg/L	1	0.10	<0.001	91		80 - 120	20
Ethylbenzene		0.092	mg/L	1	0.10	<0.001	92		80 - 120	20
M,P,O-Xylene		0.304	mg/L	1	0.30	<0.001	101		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.099	mg/L	1	0.10	99	72 - 128
4-BFB		0.091	mg/L	1	0.10	91	72 - 128

Sample: LCSD QC Batch: QC06097

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.099	mg/L	1	0.10	<0.001	99	1	80 - 120	20
Benzene		0.094	mg/L	1	0.10	<0.001	94	2	80 - 120	20
Toluene		0.09	mg/L	1	0.10	<0.001	90	1	80 - 120	20
Ethylbenzene		0.091	mg/L	1	0.10	<0.001	91	1	80 - 120	20
M,P,O-Xylene		0.301	mg/L	1	0.30	<0.001	100	1	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.097	mg/L	1	0.10	97	72 - 128
4-BFB		0.089	mg/L	1	0.10	89	72 - 128

Sample: LCS QC Batch: QC06363

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Naphthalene		54.620	mg/L	1	80	<0.005	68		36 - 100	20
Acenaphthylene		60.709	mg/L	1	80	<0.005	75		56 - 105	20
Acenaphthene		61.332	mg/L	1	80	<0.005	76		60 - 99	20
Fluorene		63.516	mg/L	1	80	<0.005	79		57 - 109	20
Phenanthrene		66.682	mg/L	1	80	<0.005	83		54 - 112	20
Anthracene		60.688	mg/L	1	80	<0.005	75		52 - 110	20
Fluoranthene		68.809	mg/L	1	80	<0.005	86		53 - 117	20
Pyrene		67.262	mg/L	1	80	<0.005	84		42 - 114	20
Benzo(a)anthracene		64.921	mg/L	1	80	<0.005	81		55 - 107	20
Chrysene		82.227	mg/L	1	80	<0.005	102		0 - 149	20
Benzo(b)fluoranthene		61.272	mg/L	1	80	<0.005	76		49 - 113	20
Benzo(k)fluoranthene		66.957	mg/L	1	80	<0.005	83		39 - 135	20
Benzo(a)pyrene		67.324	mg/L	1	80	<0.005	84		50 - 118	20
Indeno(1,2,3-cd)pyrene		68.823	mg/L	1	80	<0.005	86		29 - 120	20
Dibenzo(a,h)anthracene		78.614	mg/L	1	80	<0.005	98		0 - 165	20
Benzo(g,h,i)perylene		69.359	mg/L	1	80	<0.005	86		39 - 121	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
Nitrobenzene-d5		60.78	mg/L	1	80	75	36 - 107
2-Fluorobiphenyl		58.23	mg/L	1	80	72	54 - 97
Terphenyl-d14		70.06	mg/L	1	80	87	0 - 113

Sample: LCSD QC Batch: QC06363

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Naphthalene		54.763	mg/L	1	80	<0.005	68	0	36 - 100	20
Acenaphthylene		62.108	mg/L	1	80	<0.005	77	2	56 - 105	20
Acenaphthene		62.090	mg/L	1	80	<0.005	77	1	60 - 99	20
Fluorene		62.838	mg/L	1	80	<0.005	78	1	57 - 109	20
Phenanthrene		66.647	mg/L	1	80	<0.005	83	0	54 - 112	20
Anthracene		60.949	mg/L	1	80	<0.005	76	0	52 - 110	20
Fluoranthene		71.306	mg/L	1	80	<0.005	89	4	53 - 117	20
Pyrene		78.794	mg/L	1	80	<0.005	98	16	42 - 114	20
Benzo(a)anthracene		65.219	mg/L	1	80	<0.005	81	0	55 - 107	20
Chrysene		82.771	mg/L	1	80	<0.005	103	1	0 - 149	20
Benzo(b)fluoranthene		63.291	mg/L	1	80	<0.005	79	3	49 - 113	20
Benzo(k)fluoranthene		59.882	mg/L	1	80	<0.005	74	11	39 - 135	20
Benzo(a)pyrene		68.841	mg/L	1	80	<0.005	86	2	50 - 118	20
Indeno(1,2,3-cd)pyrene		65.326	mg/L	1	80	<0.005	81	5	29 - 120	20
Dibenzo(a,h)anthracene		77.074	mg/L	1	80	<0.005	96	2	0 - 165	20
Benzo(g,h,i)perylene		68.607	mg/L	1	80	<0.005	85	1	39 - 121	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
Nitrobenzene-d5		61.15	mg/L	1	80	76	36 - 107
2-Fluorobiphenyl		60.50	mg/L	1	80	75	54 - 97
Terphenyl-d14		79.05	mg/L	1	80	98	0 - 113

Sample: LCS QC Batch: QC06382

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1140	mg/L	50	1000	<0.05	114		75 - 125	20
Dissolved Magnesium		1090	mg/L	50	1000	<0.05	109		75 - 125	20
Dissolved Potassium		1110	mg/L	50	1000	0.255	110		75 - 125	20
Dissolved Sodium		1020	mg/L	50	1000	0.165	101		75 - 125	20

Sample: LCSD QC Batch: QC06382

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1130	mg/L	50	1000	<0.05	113	1	75 - 125	20
Dissolved Magnesium		1100	mg/L	50	1000	<0.05	110	1	75 - 125	20
Dissolved Potassium		1090	mg/L	50	1000	0.255	109	2	75 - 125	20
Dissolved Sodium		1020	mg/L	50	1000	0.165	102	0	75 - 125	20

Sample: LCS QC Batch: QC06385

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Mercury		0.00090	mg/L	1	0.001	<0.0002	90		80 - 120	20

Sample: LCSD QC Batch: QC06385

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Mercury		0.00102	mg/L	1	0.001	<0.0002	102	12	80 - 120	20

Sample: LCS QC Batch: QC06408

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Silica		5	mg/L	1	5	<0.5	100		75 - 125	20

Sample: LCSD QC Batch: QC06408

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Silica		4.98	mg/L	1	5	<0.5	99	0	75 - 125	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC05995

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL	[5]	174.88	mg/L	1	125	60	91		80 - 120	20
Nitrate-N	[6]	26.26	mg/L	1	25	<1.0	105		80 - 120	20
Sulfate	[7]	156.15	mg/L	1	125	38	94		80 - 120	20

[5] I spiked the *10 dilution but reported the *5 dilution. The correct %EA = 90.
[6] I spiked the *10 dilution but reported the *5 dilution.
[7] I spiked the *10 dilution but reported the *5 dilution. The correct %EA = 92.

Sample: MSD QC Batch: QC05995

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL	[8]	173.87	mg/L	1	125	60	91	1	80 - 120	20
Nitrate-N	[9]	24.59	mg/L	1	25	<1.0	98	6	80 - 120	20
Sulfate	[10]	152.43	mg/L	1	125	38	91	3	80 - 120	20

Sample: MS QC Batch: QC06382

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1360	mg/L	50	1000	225	113		75 - 125	20
Dissolved Magnesium		1200	mg/L	50	1000	96.8	110		75 - 125	20
Dissolved Potassium		1270	mg/L	50	1000	27.1	124		75 - 125	20
Dissolved Sodium		3210	mg/L	50	1000	2300	91		75 - 125	20

Sample: MSD QC Batch: QC06382

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1410	mg/L	50	1000	225	118	4	75 - 125	20
Dissolved Magnesium		1250	mg/L	50	1000	96.8	115	4	75 - 125	20
Dissolved Potassium	[11]	1340	mg/L	50	1000	27.1	131	5	75 - 125	20
Dissolved Sodium		3340	mg/L	50	1000	2300	104	13	75 - 125	20

Sample: MS QC Batch: QC06385

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Mercury		0.00210	mg/L	1	0.001	<0.0002	95		80 - 120	20

Sample: MSD QC Batch: QC06385

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Mercury		0.00191	mg/L	1	0.001	<0.0002	76	22	80 - 120	20

[8] I spiked the *10 dilution but reported the *5 dilution.
[9] I spiked the *10 dilution but reported the *5 dilution.
[10] I spiked the *10 dilution but reported the *5 dilution.
[11] Elevated recovery due to matrix difficulties. LCS demonstrates process under control.

Sample: MS QC Batch: QC06408

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Silica	[12]	21.8	mg/L	10	5	23.4	-32		75 - 125	20

Sample: MSD QC Batch: QC06408

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Silica	[13]	21.6	mg/L	10	5	23.4	-35	-10	75 - 125	20

Quality Control Report
Duplicate Samples

Sample: Duplicate QC Batch: QC06055

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		5486	5600	μMHOS/cm	1	2	20

Sample: Duplicate QC Batch: QC06183

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		8.9	8.9	s.u.	1	0	20

Sample: Duplicate QC Batch: QC06275

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		15320	14000	mg/L	1	9	20

Sample: Duplicate QC Batch: QC06329

[12] MS invalidated due to required dilution of spiked sample
[13] MS invalidated due required dilution of spiked sample

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	20
Carbonate Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity		46	48	mg/L as CaCo3	1	4	20
Total Alkalinity		46	48	mg/L as CaCo3	1	4	20

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1)

QC Batch: QC05995

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.40	91	80 - 120	10/27/00
Fluoride		mg/L	2.50	2.32	92	80 - 120	10/27/00
Nitrate-N		mg/L	2.50	2.37	94	80 - 120	10/27/00
Sulfate		mg/L	12.50	11.53	92	80 - 120	10/27/00

Sample: ICV (1)

QC Batch: QC05995

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.40	91	80 - 120	10/27/00
Fluoride		mg/L	2.50	2.16	86	80 - 120	10/27/00
Nitrate-N		mg/L	2.50	2.35	94	80 - 120	10/27/00
Sulfate		mg/L	12.50	11.47	91	80 - 120	10/27/00

Sample: CCV (1)

QC Batch: QC06055

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μMHOS/cm	1413	1400	99	80 - 120	10/30/00

Sample: ICV (1)

QC Batch: QC06055

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μMHOS/cm	1413	1408	99	80 - 120	10/30/00

Sample: CCV (1) QC Batch: QC06097

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.093	93	80 - 120	10/30/00
Toluene		mg/L	0.10	0.088	88	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.089	89	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.288	96	80 - 120	10/30/00

Sample: CCV (2) QC Batch: QC06097

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.096	96	80 - 120	10/30/00
Toluene		mg/L	0.10	0.092	92	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.091	91	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.31	103	80 - 120	10/30/00

Sample: ICV (1) QC Batch: QC06097

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.099	99	80 - 120	10/30/00
Toluene		mg/L	0.10	0.094	94	80 - 120	10/30/00
Ethylbenzene		mg/L	0.10	0.095	95	80 - 120	10/30/00
M,P,O-Xylene		mg/L	0.30	0.314	104	80 - 120	10/30/00

Sample: CCV (1) QC Batch: QC06183

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	10/27/00

Sample: ICV (1) QC Batch: QC06183

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	10/27/00

Sample: CCV (1) QC Batch: QC06275

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	993	99	80 - 120	11/2/00

Sample: ICV (1) QC Batch: QC06275

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	986	98	80 - 120	11/2/00

Sample: CCV (1) QC Batch: QC06329

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	6.0	0	80 - 120	11/7/00
Carbonate Alkalinity		mg/L as CaCo3	0	240	0	80 - 120	11/7/00
Bicarbonate Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	11/7/00
Total Alkalinity		mg/L as CaCo3	250	246	98	80 - 120	11/7/00

Sample: ICV (1) QC Batch: QC06329

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	11/7/00
Carbonate Alkalinity		mg/L as CaCo3	0	244	0	80 - 120	11/7/00
Bicarbonate Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	11/7/00
Total Alkalinity		mg/L as CaCo3	250	244	97	80 - 120	11/7/00

Sample: CCV (1) QC Batch: QC06363

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60	59.93	99	36 - 100	11/7/00
Acenaphthylene		mg/L	60	61.70	102	56 - 105	11/7/00
Acenaphthene		mg/L	60	60.85	101	60 - 99	11/7/00
Fluorene		mg/L	60	64.83	108	57 - 109	11/7/00
Phenanthrene		mg/L	60	60.50	100	54 - 112	11/7/00
Anthracene		mg/L	60	60.58	100	52 - 110	11/7/00

Continued ...

... *Continued*

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoranthene		mg/L	60	57.98	96	53 - 117	11/7/00
Pyrene		mg/L	60	51.29	85	42 - 114	11/7/00
Benzo(a)anthracene		mg/L	60	59.84	99	55 - 107	11/7/00
Chrysene		mg/L	60	60.96	101	0 - 149	11/7/00
Benzo(b)fluoranthene		mg/L	60	65.99	109	49 - 113	11/7/00
Benzo(k)fluoranthene		mg/L	60	63.41	105	39 - 135	11/7/00
Benzo(a)pyrene		mg/L	60	61.81	103	50 - 118	11/7/00
Indeno(1,2,3-cd)pyrene		mg/L	60	55.48	92	29 - 120	11/7/00
Dibenzo(a,h)anthracene		mg/L	60	58.79	97	0 - 165	11/7/00
Benzo(g,h,i)perylene		mg/L	60	55.91	93	39 - 121	11/7/00
Nitrobenzene-d5		mg/L	60	60.88	101	36 - 107	11/7/00
2-Fluorobiphenyl		mg/L	60	58.63	97	54 - 97	11/7/00
Terphenyl-d14		mg/L	60	51.89	86	0 - 113	11/7/00

Sample: CCV (1) QC Batch: QC06382

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	10	10.2	102	75 - 125	11/9/00
Dissolved Magnesium		mg/L	10	9.98	99	75 - 125	11/9/00
Dissolved Potassium		mg/L	10	9.68	94	75 - 125	11/9/00
Dissolved Sodium		mg/L	10	9.87	97	75 - 125	11/9/00

Sample: ICV (1) QC Batch: QC06382

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	10	10	100	75 - 125	11/9/00
Dissolved Magnesium		mg/L	10	9.89	98	75 - 125	11/9/00
Dissolved Potassium		mg/L	10	9.37	93	75 - 125	11/9/00
Dissolved Sodium		mg/L	10	9.82	98	75 - 125	11/9/00

Sample: CCV (1) QC Batch: QC06385

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.001	0.00097	97	80 - 120	10/30/00

Sample: ICV (1) QC Batch: QC06385

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.001	0.00097	97	80 - 120	10/30/00

Sample: CCV (1)

QC Batch: QC06408

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silica		mg/L	5	4.97	99	75 - 125	11/9/00

Sample: ICV (1)

QC Batch: QC06408

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silica		mg/L	5	5.09	101	75 - 125	11/9/00

157317-19

Page ____ of ____

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A0010273 2

Company Name: NMOCD
Phone #: 505-827-7154
Address: (Street, City, Zip) 2040 South Pacheco
Fax #: 505-827-8177
Contact Person: Bill Olson
& 505 393-0720 Donna in Hobbs
Invoice to: (If different from above)
Project #:
Project Name: ELDridge
Project Location: ELDridge Ranch
Sampler Signature: Donna Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
157317	1140 10262000 (Kitchen)	2	40 ml	X				X		X		10-26-00	11:40
	1205 10262000 (house well)	2	40 ml	X				X		X		10-26-00	12:05
157318	1205 10262000 (house well)	1	1 liter	X						X		10-26-00	12:05
	1205 10262000 (house well)	1	16oz	X					X	X		10-26-00	12:05
	1205 10262000 (house well)	1	1 liter	X						X		10-26-00	12:05
157319	1235 10262000 (Irrigation well)	2	40 ml	X				X		X		10-26-00	12:35
	1235 10262000 (Irrigation well)	1	1 liter	X						X		10-26-00	12:35
	1235 10262000 (Irrigation well)	1	16oz	X					X	X		10-26-00	12:35
	1235 10262000 (Irrigation well)	1	1 liter	X						X		10-26-00	12:35

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	WQCC Metals (OCD Contact #23)	Cation/Anion (OCD Contact #24)			Turn Around Time if different from standard
	X														X	X			#1 24 hr - Emergency
	X																		Turn around time
			X																Hold
															X				
																X			
	X																		
			X																
															X				
																X			

Relinquished by: Donna Williams Date: 10-26-00 Time: 13:20
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time: 10-27-00 7:00

LAB USE ONLY

Intact (Y) / N
Headspace Y / (N)
Temp 5 °
Log-in Review

REMARKS:
Rush BTEX only per Bill 10/27/00

11/20/00

Carrier # ~~Fed Ex~~ 8136-0669-5702

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

ORIGINAL COPY

TraceAnalysis , Inc.
General Terms and Conditions

Article 1: General

1.1 The words "we", "us", and "our" refer to TraceAnalysis. You will deliver samples to us for analysis, accompanied, or preceded by, a signed Chain of Custody/Analysis Request defining the scope and timing of our work and stating either the testing criteria you require or identifying the agency to which the results will be submitted.

Article 2: Our General Responsibilities

2.1 We agree to provide the professional services described in this agreement. We will provide you with written reports containing analytical results. In performing our service, we will use that degree of care and skill ordinarily exercised under similar circumstances by reputable members of our profession practicing in the same locality.

2.2 Test and observations will be conducted using test procedures and laboratory protocols as specified in accepted Chain of Custody/Analysis Request. If you direct a manner of making tests that varies from our standard or recommended procedures, you agree to hold us harmless from all claims, damages, and expenses arising out of your direction.

2.3 We will not release information regarding our services for you or any information that we receive from you, except for information that is in the public domain and except as we are required by law.

Article 3: Your General Responsibilities

3.1 On each Chain of Custody/Analysis Request you will designate a representative who has authority to transmit instructions, receive information, and make decisions relative to our work.

3.2 You will respond in a reasonable time to our request for decisions, authorization for changes, additional compensation, or schedule extensions.

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 agency under which or for which the analysis are to be prepared. If permits, consent orders, work plans, quality assurance plans, or correspondence with regulatory agencies address laboratory requirements, you will provide us with copies of the relevant provisions prior to our initiation of the analyses.

Article 4: Reports and Records

4.1 We will furnish copies of each report to you as specified in the Chain of Custody and Analysis Request. We will retain analytical data for seven years and financial data for three years relating to the services performed following transmittal of our final report.

4.2 If you do not pay for our services as agreed, you agree that we may retain all reports and work not yet delivered to you. You also agree that our work will not be used by you for any purpose unless paid for.

Article 5: Delivery and Acceptance of Samples

5.1 Until we accept delivery of samples by notation on chain of custody documents or otherwise in writing accept the samples, you are responsible for loss of or damage to samples. Until so accepted, we have no responsibility as to samples.

5.2 As to any samples that are suspected of containing hazardous substances or radioactive material, such that would make special handling required, you will specify the suspected or known substances and level and type of radioactive activity. This information will be given to us in writing as a part of the Chain of Custody/Analysis Request and will precede or accompany samples suspected of containing hazardous substances.

5.3 Samples accepted by us remain your property while in our custody. We will retain samples for a period of 14 days following the date of submission or our report. We will extend the retention period if you so direct. Following the retention period we will dispose of non-hazardous samples. We may return highly hazardous, acutely toxic, or radioactive samples and samples containers and residues to you. You agree to accept them.

5.4 Regardless of a prior acceptance, we may refuse acceptance or revoke acceptance of samples if we determine that the samples present a risk to health, safety, or the environment, or that we are not authorized to accept them. If we revoke acceptance of any sample, you will have it removed from our facilities promptly.

Article 6: Changes to Task Orders

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 promptly if we identify 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, and cause of the activity regarded as a change. 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 amendment. The amendment 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.

Article 7: Compensation

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 firm figure unless stated as such.

7.2 Unless otherwise 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 particular item that is alleged to be incorrect. 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 invoice at the rate of 1.5% per month, but not to 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 ultimately responsible for our compensation until you provide us with that third party's written acceptance of all terms of our agreement and until we agree to the substitution.

7.4 You agree to compensate us for our services and expenses if we are required to respond to legal process related to our services for you. Compensable services include hourly charges for all personnel involved in 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 of capital.

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 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 litigation, including reasonable attorney's fees. If we bring lawsuit against you to collect our invoiced fees and expenses, you agree to pay our reasonable collection expenses including attorney fees.

Article 9: Indemnities

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 and against demands, damages, and expenses caused by your 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 indemnities are subject to specific limitations provided for in this agreement.

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 performance, 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 limited to Acts of God, civil unrest and war, labor unrest and strikes, equipment failures, matrix interference, acts of authorities, and failures of subcontractors that could not be reasonably anticipated.

10.5 You may stop our work by giving a written suspension or termination directive, but once work has been suspended, we need not resume work until we agree to change in scope, schedule, and compensation. Upon 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 responsibility for meeting holding time limitations after the effective time of a suspension or termination directive. We will be compensated for service rendered and expenses incurred prior to termination that cannot reasonably be avoided.

Olson, William

From: Price, Wayne
Sent: Thursday, November 16, 2000 11:18 AM
To: Olson, William; Price, Wayne
Subject: FW: Pipeline survey near Monument Eldridge Road

From: Sloman, Ed[SMTP:ed.sloman@lgeenergy.com]
Sent: Thursday, October 05, 2000 7:08 AM
To: Price, Wayne
Cc: Cashon, Tim; Bergen, Marc
Subject: RE: Pipeline survey near Monument Eldridge Road

Wayne,
As per your request the pipeline we have discussed and you are questioning was installed to furnish fuel gas to the compressor stations that used to be owned by Northern Natural in and around the area. This pipeline transports residue gas from our Hobbs Plant. This gas has been processed, and is clean and dry gas. When you came to my office on Friday, 9-29-00, and advised us of a problem in the area of Eldridge Road in the Monument area we discussed running a leak detection survey on our pipeline to determine if our facilities could be involved in Mr. Eldridge's water problem. As you requested, a leak detection survey was conducted that morning. The results of this survey illustrated that there are no leaks in our facilities which could have contributed to the water problem being experienced by Mr. Eldridge. I informed you of this survey and the results by phone on Friday, 9-29-00. The leak detection survey we conducted was documented for future reference.

If you have any further questions concerning this matter, please let me know.

Thanks for all of your help.

Ed Sloman

-----Original Message-----
From: Price, Wayne [mailto:WPrice@state.nm.us]
Sent: Monday, October 02, 2000 1:05 PM
To: 'ed.sloman@lgeenergy.com'
Subject: Pipeline survey near Monument Eldridge Road

Ed:

Please E-mail me a report on the history and survey the the line in question!

ELDRIDGE AREA

#2-A SINCLAIR Oil & Gas – 11/6/1936 [NELDA B. BORDAGES "A" CSG]

APD APPROVED – 11/6/36 – ULN-21-19-37

SUNDRY – 11/17/36 DRILLED TO A DEPTH OF 75'0" –

NO FURTHER INFORMATION.

APD – CSG PROGRAM – 15" H – 12½" CSG 15' INTO REDBEDS (50 SK)

11" H – 9⅝" " 1450' (500 SK)

9¼" H – 7" " 3850' (300 SK)

DONT KNOW IF EVER DRILLED ANY FURTHER THAN 75'!

CE LONG ~~SINCLAIR~~ #2 SINCLAIR FEDERAL ~~CO.~~ #2 DRILLED 1959 4/16/59

TD 3908 (CSG SHOE) PERF: 3860-3870 GRAYBURG.

8⅝ 362' – CIRC.

4½" 3908' TOC = 2450 CALC.

HOLES IN CSG = 1409-1474

-806-

AH Corp. NMGSA UNIT #5 –

CSG LEAK 3650-3681 – While squeezing found casing leak below 8⅝ wellhead. Covered hole between 113'-145' Replaced 268'- 5½ casing. PT OK 7/15/92 1992

AH – ~~NM~~ GSA #12 Failed MIT 1992 – Repaired leak.

Albert Hoppe (NCT-A) COM F – 21-19-37 1980N 1980W

Hole @ 388' & 805' – Pumped cmt from 1200' – w/ 170 SXS

Bradenhead squeeze – (1954) – Circulated 5½ & 7⅝

10¾ – 293' 185 SXS. 7⅝" – 1410 320 SXS 5½ 175 SXS.

Orig. APD – 537.

EBU #55 - Csg Leak - 7/31/63 & 9/21/51

Never held pressure on repair. P&A 7/8/98

OK AH - NM65A D - 21-19-37 - MIT 1993 OK

OK OXY USA INC EEU #849 TA 8/28/98

ELBERT SHIPP #4 C - 21-19-37

P&A 1965 - NO SALT PLUG - OR SPOT PLUGS.

Plugs @ 75 - Surf (40 sx), 4040 - 3920 (50 sx), 5520 to 5400 (50 sx), 5795 - 5695 (50 sx)

6595 - 6475 (50 sks) Cut & Pulled 7" csg ~~from~~ @ 8011

EEU #52 - P&A

EEU #57 - P&A 1/26/99

active Marathon Oil - Huston Com #2 A. - Csg cmtd.

WIW - AH - NM65A a - #13 - MIT - 1/27/98 - Need.
(MIT #3) 300 psi - 30 min. M - 21-19-37.

AH - NM65A #11 K - 21-19-37

Huston Com #1 Marathon - P&A 4-12-97

FAX TRANSMITTAL

FROM: EDDIE SEAY CONSULTING
601 W. ILLINOIS
HOBBS, NM 88242
(505)392-2236
FAX: (505)392-6949

DATE: 10/23/2000

TO: NMOCD Environmental

ATTENTION: Wayne Price

FAX #: 505-827-8177

SPECIAL INSTRUCTIONS:

Eldridge info.

TOTAL PAGES TRANSMITTED (INCLUDING COVER): 5

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☑ gas well ☐ other

2. NAME OF OPERATOR
C.E. LONG

3. ADDRESS OF OPERATOR
Box 1943, Midland, Tx. 79702

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 660'FSL & 1650'FWL, 21 19 37
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
LC 030678A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
SINCLAIR FEDERAL

9. WELL NO.
2

10. FIELD OR WILDCAT NAME
Eunice-Monument (GB-SA

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 21, T-19-S, R-37-E NMPM

12. COUNTY OR PARISH
LEA

13. STATE
N.M.

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
3645'KB, 3643'DF, 3633' Gr.

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☑		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other)			

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

RECEIVED
JUL 27 10 08 AM '83
BUR. OF LAND MGMT.
ROSWELL, NEW MEXICO

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Propose to begin surface equipment repairs on July 18, 1983, and moving necessary tubular goods and Workover equipment onto wellsite.

Work is expected and planned to include removal of equipment from inside casing, location and testing of all leaks in casing and squeezing same, drilling out and putting well on production of oil & gas.

A separate report of plan to abandon will be Submitted in timely manner if that is necessary.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED C.E. Long TITLE Owner-oper. DATE 7/27/83

APPROVED (This space for Federal or State office use)

APPROVED BY (ORIG. SGD.) PETER W. CHESTER TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

AUG 22 1983

*See Instructions on Reverse Side

Form 9-331
Dec. 1973

P. O. BOX
HOBBS, NEW MEXICO 88240

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
JUL 1983
OIL CON. DIV.
HOBBS, OFFICE

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☒ gas well ☐ other

2. NAME OF OPERATOR: C. E. Long

3. ADDRESS OF OPERATOR: Box 1943, Midland, Texas 79702

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 660' FSL, 1650' FWL, 21-19-37
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE: LC-030678A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Blinebry-Sinclair-Federal

9. WELL NO.: 2

10. FIELD OR WILDCAT NAME: Eunice-Monument (Gb.-SA)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 21, T-19-S, R-37-E NMPM

12. COUNTY OR PARISH: Lea

13. STATE: N. M.

14. API NO.: ----

15. ELEVATIONS (SHOW DF, KDB, AND WD): 3633' Gr., 3645' KB

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF ☐	☐
FRACTURE TREAT ☐	☐
SHOOT OR ACIDIZE ☐	☐
REPAIR WELL ☐	☐
PULL OR ALTER CASING ☐	☐
MULTIPLE COMPLETE ☐	☐
CHANGE ZONES ☐	☐
ABANDON* ☒	Received verbal permission for plugging
(other)	by telephone from Mr. Peter W. Chester.

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

On 7/18/83 we began efforts to repair and condition well for resumption of production. We pulled all equipment from hole, then went in hole with 3 3/8" bit, tagge bottom @ 3830' KB, cleaned out to 3880' at which point the old perforations were taking fluid. Pulled out of hole. On 7/19/83 went in hole with packer and bridge plug, found holes in 4½" casing @ 1409-1474' and @ 306'. Set retrievable bridge plug @ 3642'. On 7/20/83 spotted sar on-bridge plug, set cement retainer @ 1300' and pumped 250 sacks cement and circulated cement out of bradenhead. Pulled out of retainer and out of hole, pulled BOP and wellhead, then hooked onto casing and pumped 150 sacks of cement which circulated out bradenhead. Left 1½ bbl. cement in casing. Shut-in for 40 hours after pulling out of hole. On 7/22.83 we installed BOP, ran bit in hole, tagged cement @ 256' and drilled through cement at 350'. Cement did not hold. (Over)

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED C. E. Long TITLE Owner-oper. DATE 8/9/83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

RJSP

On 7/23/83 we pumped 200 sacks of class "C" cement in hole. Shut down for 40 hours. On 7/25/8 we went in hole with bit, found top of cement at 165' drilled out and tested. Did not hold. Pumped in 200 sacks of cement and shut down. On 7/26/83 we installed BOP and drilled out. Pressured to 500# and it held OK. On 7/27/83 and 7/28/83 we drilled cement retainer @ 1300', cleaned out to retrievable bridge plug and found casing still leaking. Pulled retrievable bridge plug. Ran bridge plug and packer looking for leaks. Found leak @ 306'. On 7/29/8 we pumped 200 sacks of cement down casing and shut down for about 60 hours. On 8/1/83 went in hol with bit and found cement at 290', drilled out cement tested but it did not hold. Decided to plug hole.

Called Roswell for permission to plug, instructions, etc., and was granted this permission and the instructions. On 8/2/83 we laid down tubing and rods, leaving enough tubing to finish the job. We set a cast iron bridge plug @ 3810'.

On 8/3/83 we plugged the well with 35' of cement on top of bridge plug and with cement plugs as follows:

100' cement plug @ 2700-2600' inside 4½" casing.

100' cement plug @ 1300-1200' inside 4½" casing.

363' cement plug @ 363' to surface with cement circulating up through 4½" casing and into cellar.

On 8/5/83 we cut off top threads of 4½" casing after digging top 4 or 5 inches of hardened cement out of the casing. The 4½" marker was then welded onto the top of the casing.

The location was cleared of debris, pits were closed and surface of the wellsite was smoothed as well as possible with bulldozer. Deadmen were removed and taken from site of the well. Cellar was filled and smoothed-ove

This well was plugged because it became apparent that to satisfactorily repair it would prove economically infeasible.

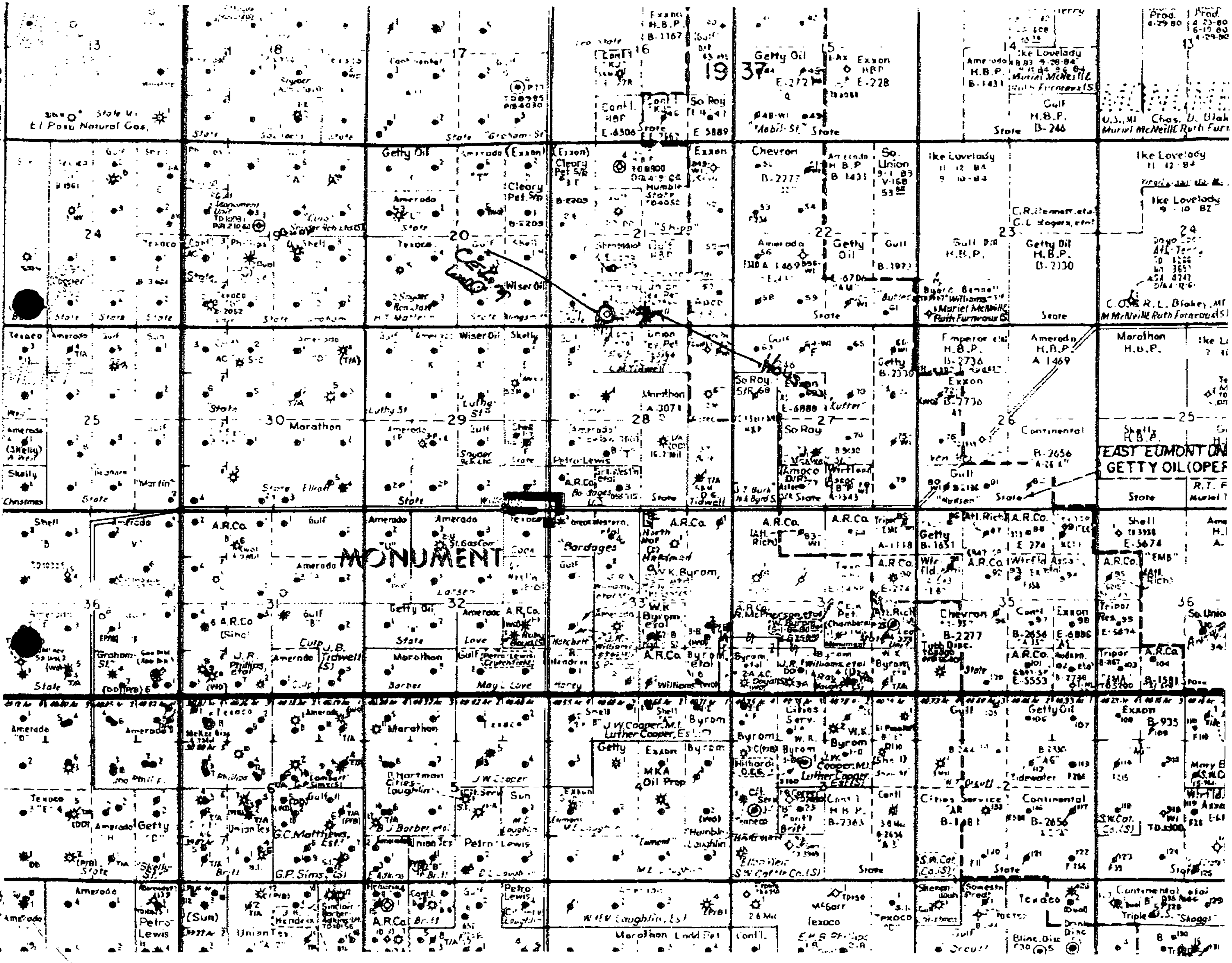
RECEIVED
JUL 27 1987
OCD
HOBBS OFFICE

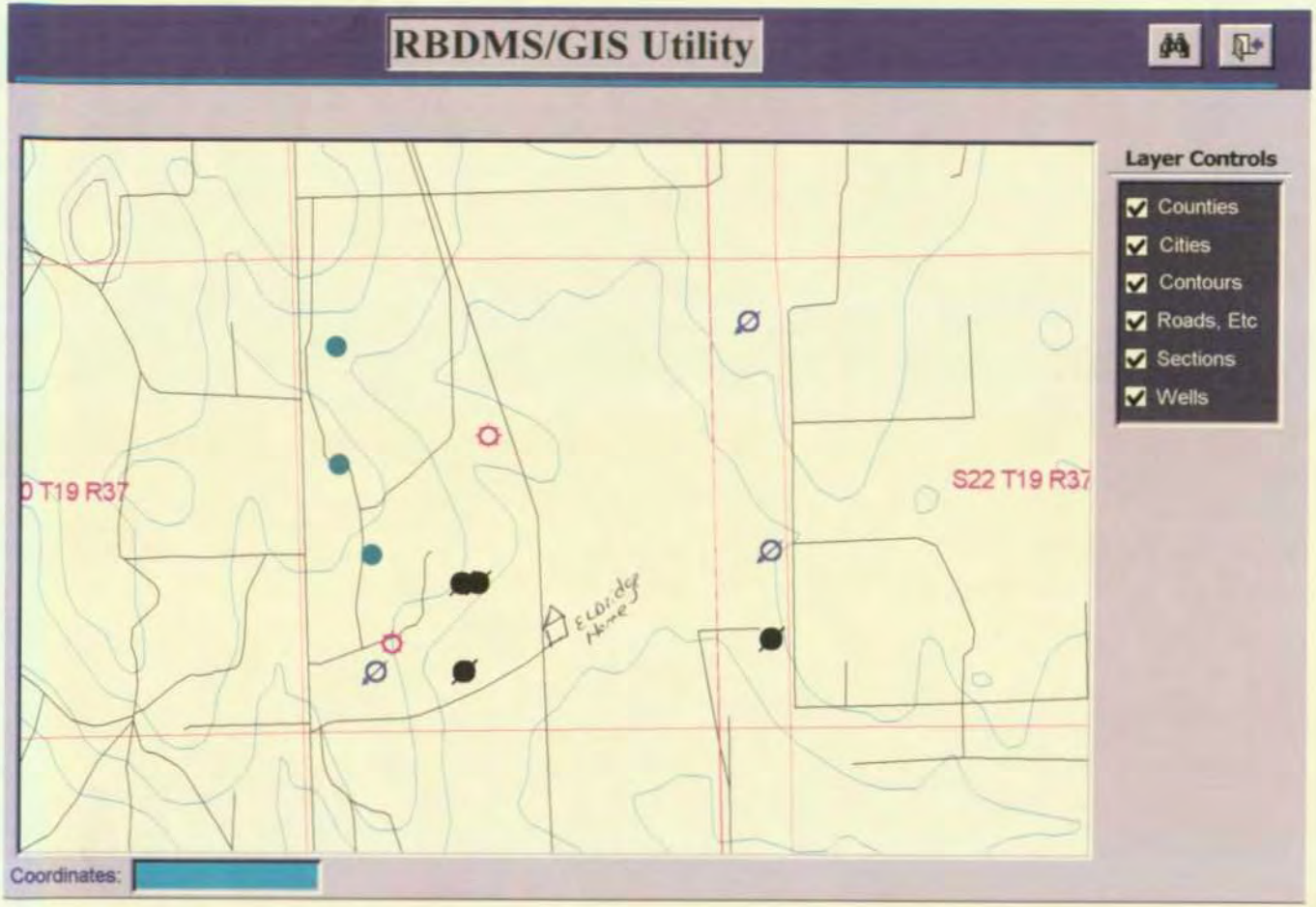
Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.


El Paso Natural Gas
Getty Oil
Exxon
H.B.P.
E-272
E-228
Mobil St.
State
Cont'l.
E-6306
So Roy
E 5889
Ike Lovelady
Amerada
Gulf
Chevron
B-2277
So. Union
Cleary Pet. S/P
Humble State
Shell
Texaco
Phillips
Wiser Oil
Getty Oil
Marathon
Union Tex. Pet.
Continental
Amoco
Emperor etal
B-2736
B-2656
EAST EUMONT UN
GETTY OIL (OPER
Marathon
H.B.P.
A.R.Co.
MONUMENT
Bordages
W.K. Byrom
A.R.Co.
Chevron
B-2277
Exxon
E-5674
J.R. Phillips, etal
J.B. Tidwell (S)
Getty Oil
State
Love
Graham St.
Barber
May Love
Amerada
Marathon
J.W. Cooper, M.I. Luther Cooper, Es(S)
MKA Oil Prop
Byrom
Cities Serv.
Byrom
Cities Service "AR"
B-1481
Continental
B-2656
Tidewater
Exxon
B-935
Texaco
Getty
G.C. Matthews, Est.
G.P. Sims (S)
Petro-Lewis
Union Tex.
Sun
Cont'l H.B.P.
B-7363
Britt
Amerada
Petro Lewis
(Sun)
A.R.Co.
W.H.V. Laughlin, Est
Marathon
Texaco
McGarr
Texaco
Continental etal
Triple
Shenandoah
Somesten Prod.
Blinc Disc



Injection well

Gas wells

P&A'd

Blue dot Oil wells

Olson, William
From: Price, Wayne
Sent: Thursday, October 05, 2000 11:48 AM
To: Olson, William
Subject: FW: Pipeline survey near Monument Eldridge Road

From: Sloman, Ed[SMTP:ed.sloman@lgeenergy.com]
Sent: Thursday, October 05, 2000 8:08 AM
To: Price, Wayne
Cc: Cashon, Tim; Bergen, Marc
Subject: RE: Pipeline survey near Monument Eldridge Road

Wayne,
As per your request the pipeline we have discussed and you are questioning was installed to furnish fuel gas to the compressor stations that used to be owned by Northern Natural in and around the area. This pipeline transports residue gas from our Hobbs Plant. This gas has been processed, and is clean and dry gas. When you came to my office on Friday, 9-29-00, and advised us of a problem in the area of Eldridge Road in the Monument area we discussed running a leak detection survey on our pipeline to determine if our facilities could be involved in Mr. Eldridge's water problem. As you requested, a leak detection survey was conducted that morning. The results of this survey illustrated that there are no leaks in our facilities which could have contributed to the water problem being experienced by Mr. Eldridge. I informed you of this survey and the results by phone on Friday, 9-29-00. The leak detection survey we conducted was documented for future reference.

If you have any further questions concerning this matter, please let me know.

Thanks for all of your help.

Ed Sloman

-----Original Message-----
From: Price, Wayne [mailto:WPrice@state.nm.us]
Sent: Monday, October 02, 2000 1:05 PM
To: 'ed.sloman@lgeenergy.com'
Subject: Pipeline survey near Monument Eldridge Road

Ed:

Please E-mail me a report on the history and survey the the line in question!

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE W. SEAY
601 W. ILLINOIS
HOBBS, NM. 88242
FAX TO:

Receiving Date: 08/18/00
Reporting Date: 08/21/00
Project Owner: FRANK ELDRIDGE
Project Name: ELDRIDGE RANCH
Project Location: MONUMENT, NM

Sampling Date: 08/18/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	TPH (mg/L)	Cl (mg/L)
ANALYSIS DATE:		08/18/00	08/18/00
H5106-1	ELDRIDGE #2 & 3	1.69	114
Quality Control		10.6	1002
True Value QC		12.0	1000
% Recovery		88.7	100
Relative Percent Difference		9.0	0.9

METHODS: TPH-EPA 600/4-79-020 418.1; Cl-Std. Methods 4500-Cl⁻B

Chemist

8/21/00
Date

H5106A.XLS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE W. SEAY
601 W. ILLINOIS
HOBBS, NM. 88242
FAX TO:

Receiving Date: 08/18/00
Reporting Date: 08/21/00
Project Owner: FRANK ELDRIDGE
Project Name: ELDRIDGE RANCH
Project Location: MONUMENT, NM
Lab Number: H5106-1
Sample ID: ELDRIDGE #1

Analysis Date: 08/18/00
Sampling Date: 08/18/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

VOLATILES (mg/L)	Sample Result	Method Blank	QC	%Recov.	True Value QC
Benzene	0.570	<0.002	0.108	108	0.100
Toluene	<0.002	<0.002	0.106	106	0.100
Ethylbenzene	<0.002	<0.002	0.110	110	0.100
m,p-Xylene	0.011	<0.004	0.224	112	0.200
o-Xylene	0.005	<0.002	0.112	112	0.100

	% RECOVERY
Dibromofluoromethane	95
Toluene-d8	98
Bromofluorobenzene	98

METHODS: EPA SW-846 8260

Burgess J. A. Cooke, Ph. D.

8/21/00
Date

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of____

Company Name: Eddie Sean Consulting		BILL TO	PO #:
Project Manager: Eddie W Sean		Company:	
Address: 601 W Illinois		Attn:	
City: Hobbs State: NM Zip:		Address:	
Phone #: 2-2236		City:	
Fax #:		State:	Zip:
Project #: Project Owner: Frank Eldridge		Phone #:	
Project Name: Eldridge Ranch		Fax #:	
Project Location: Monument NM 21-38-19-37			

ANALYSIS REQUEST

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	BTEX	TPH	Cl
H5106-1	Eldridge #1	✓	1	✓							✓		8/17	4:30 pm	✓		
	" #2	✓	1	✓							✓		"	"		✓	
	" #3	✓	1	✓							✓		"	"			✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By:	Date: 8/18/00	Received By: (Lab Staff)	REMARKS: Taken from house well
Delivered By: (Circle One)	Time: 8:20	Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:			

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE W. SEAY
601 W. ILLINOIS
HOBBS, NM. 88242
FAX TO:

Receiving Date: 08/30/00
Reporting Date: 09/01/00
Project Owner: FRANK ETHRIDGE
Project Name: ETHRIDGE IRRIGATION WELL
Project Location: MONUMENT, NM

Sampling Date: 08/29/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	TPH (mg/L)	Cl (mg/L)
ANALYSIS DATE:		08/31/00	08/30/00
H5130-1	IRRIGATION WELL	16.9	75
Quality Control		10.6	962
True Value QC		12.0	1000
% Recovery		88.7	96.2
Relative Percent Difference		9.0	1.2

METHODS: TPH-EPA 600/4-79-020 418.1; Cl-Std. Methods 4500-Cl⁻B

Chemist

9/1/00
Date

H5130A.XLS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE W. SEAY
601 W. ILLINOIS
HOBBS, NM. 88242
FAX TO:

Receiving Date: 08/30/00
Reporting Date: 09/01/00
Project Owner: FRANK ETHRIDGE
Project Name: ETHRIDGE IRRIGATION WELL
Project Location: MONUMENT, NM
Lab Number: H5130-1
Sample ID: IRRIGATION WELL

Analysis Date: 08/30/00
Sampling Date: 08/29/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

VOLATILES (mg/L)	Sample Result H5130-1	Method Blank	QC	%Recov.	True Value QC
Benzene	7.56	<0.002	0.108	108	0.100
Toluene	8.15	<0.002	0.106	106	0.100
Ethylbenzene	0.295	<0.002	0.110	110	0.100
m,p-Xylene	1.03	<0.004	0.224	112	0.200
o-Xylene	0.275	<0.002	0.112	112	0.100
Isopropylbenzene	0.005	<0.002	0.104	104	0.100
n-Propylbenzene	0.003	<0.002	0.101	101	0.100
1,3,5-Trimethylbenzene	0.007	<0.002	0.105	105	0.100
1,2,4-Trimethylbenzene	0.013	<0.002	0.095	95	0.100

	% RECOVERY
Dibromofluoromethane	90
Toluene-d8	93
Bromofluorobenzene	98

METHODS: EPA SW-846 8260
The analysis was extended to include the following tenatively identified compounds:
Isopentane, n-Pentane, Methylpentane isomers, n-Hexane, Methylcyclopentane, Cyclohexane, and Methylcyclopentane.

Burgess J. A. Cooke, Ph. D.

9/1/00
Date

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of ____

Company Name:	Eddie Seay Consulting	BILL TO	
Project Manager:	Eddie Seay	P.O. #:	
Address:	601 W. Illinois	Company:	
City:	Hobbs	State: NM Zip:	Attn:
Phone #:	2-2236	Fax #:	Address:
Project #:		Project Owner: Frank Ethridge	City:
Project Name:	Ethridge Irrigation well		State: Zip:
Project Location:	Monument N.M		Phone #:
Sampler Name:			Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TBH 418.1	CL										
45130-1	Irrigation Well	✓	2	✓							✓		8/29	6pm	✓	✓	✓										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Eddie Seay	Date: 8/30 Time: 8am	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 8/30/200 Time: 8:00 Am	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)	REMARKS: Irrigation well

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time	Date 9/00

Originating Party	Other Parties
Eddie Seay (505) 392-2236	Bill Olson - Envir. Bureau

Subject

Frank Eldridge Water Wells - approx 1-2 miles North of Monument (505) 393-5552

Discussion

Eldridge complained to him that fish in pond died
Pond water supplied by irrigation well approx 100 yrds North of pond
Another well on propmty is domestic well for the house
Mr. Seay sampled both wells
Irrigation well - B = 7.56 ppm Domestic well - B = > 0.5 ppm
T = 8.1 ppm
E = 0.3 ppm
X = 1.3 ppm
Cl = 75 ppm

Conclusions or Agreements

Eldridges stopped using well for drinking
Pipelines in area could be source

OCD will investigate

Distribution

Chris Williams - OCD Hobbs

Signed Bill Olson