TETRA TECH

February 1, 2010

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
1301 West Grand Avenue
Artesia, NM 88210

Re: Work Plan for the St. Mary Land & Exploration Company, Parkway Delaware Unit #304 (205 Injection Well), Unit G, Section 35, Township 19 South, Range 29 East, Eddy County, New Mexico. (2 RP 200)

Mr. Bratcher:

Tetra Tech was contacted by St. Mary Land & Exploration Company (St. Mary) to assess a spill from the Parkway Delaware Unit #304 (205 Injection Well) located in Unit G, Section 35, Township 19 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32 .62022 °, W 104.04230 °. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on July 13, 2008. Approximately 275 barrels of produced water was released from a 2-inch injection lateral line on the wellhead, due to a ball valve failure. The injection well was shut-in and the ball valve and line were repaired. Vacuum trucks were utilized to recover 80 barrels of standing fluids. The initial C-141 is enclosed in Appendix A.

Hydrology

The New Mexico State Engineers Well Report listed one well in Section 34 with an average depth of 60' and wells in Sections 35 and 36, with reported depths of 110' and 115' , respectively. The Geology and Groundwater Resources of Eddy County New Mexico (Report 3) showed one well in Section 3, Township 20 South, Range 29 East, with a reported depth to water of 91' bgs. The well reports are included in Appendix B.

Tetra Tech
1910 North Big Spring, Midland,TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

According to the Geology and Groundwater Resources of Eddy County, New Mexico (Report 3), the Rustler and Castile formations (Ochoa Series) are present west and east of the Pecos River. The Rustler and Castile formations consist of anhydrite, gypsum, interbedded sandy clay and beds of dolomite. Groundwater from the Castile and Rustler formations west of the Pecos River is historically high in chloride and sulfate concentrations which increase towards the river. The site is located on the east edge of the Rustler formation.

On March 10, 2009, Tetra Tech personnel supervised the installation of a temporary well (TMW-1) to establish groundwater quality and depth at the Site. The well construction log is shown in Appendix C. During the installation, the well drilled dry. The well was drilled through fine grained sand with gypsum layers and red shale to a total depth of 140', to the top of a black and gray shale formation (blue shale). The well was measured two days later and showed a depth of 122.93 TOC. During the development of the well, the well purged dry and showed a slow recovery rate. On March 16, 2009, the well was purged dry and allowed to recover, prior to sampling. The groundwater quality showed a chloride concentration of 147 mg/l and sulfate of 1,960 mg/l.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Results

On July 21, 2008, Tetra Tech personnel installed a total of nine (9) auger holes to assess the spill area. The main spill area measured approximately 60' x 285' south of the release. The spill also migrated across a two track road impacting an area south of the road, approximately 100 x 150'. Auger holes (AH-1 through AH-9) were installed using a stainless steel hand auger to assess the impacted soils. The auger holes were advanced to depths ranging from 3.0' to 10.0' below surface. Deeper samples were not collected in some of the auger holes due to a dense caliche layer formation. The auger hole locations are shown on Figure 3. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D.

Referring to Table 1, all of the samples analyzed were below the RRAL for both BTEX and TPH. The chloride concentrations ranged from 229 mg/kg (AH-1 at 8-8.5') to 8,800 mg/kg (AH-2 at 1-1.5') with the chlorides delineated in auger holes AH-1, AH-3, AH-6, and AH-7.

TETRA TECH

In order to complete delineation of the chlorides at the site, on August 27, 2008, Tetra Tech personnel were onsite to install five (5) boreholes (SB-1 through SB-5) utilizing an air rotary rig. The borings were installed in the vicinity of the auger holes where chloride concentrations were not defined (AH-2, AH-4, AH-5, AH-8, and AH-9). The boreholes were extended to a maximum depth of 30 to 35 feet bgs with samples collected at five foot intervals. The samples were submitted to the laboratory for analysis of chlorides.

Referring to Table 1, analytical results indicate the maximum extent of chloride impact greater than 1,000 mg/kg extended to 2.0' to 4.0' at, AH-3, AH-6 and AH-7, 6.0'-9.0' at AH-1, AH-2 (SB5), AH-5 (SB4), and AH-8 (SB2), and to 13.0' to 18.0'at AH-4 (SB3) and AH-9 (SB1). All samples had chloride concentrations that decreased with depth. Borehole logs are included in Appendix C. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The borehole locations are shown on Figure 3.

Based on the borehole data, Figures 4 and 5 (Cross-Sections A-A' and B-B') were developed to evaluate distribution of the chloride impact in the subsurface soils.

Conclusions and Work Plan

The site is located in a pasture with no receptors within a one mile radius. The depth to groundwater in this area is 122' below surface and the chloride impact has been delineated.

On July 27, 2009, Tetra Tech personnel met with the NMOCD in Artesia to discuss the corrective action for the site. As discussed, the proposed excavation depths are shown in Table 1. The proposed excavation depths range from 2.0' to 6.0' below surface. The areas of BH4, BH-5, BH-8 and BH-9 are proposed to be excavated to the depths as shown in Table 1 and will be lined with a 40 mil liner at 4.0' bgs. The location of the liner is shown on Figure 6. The remaining areas are proposed to be excavated down to the appropriate depths as shown in Table 1. Once excavated to the appropriate depths, the excavation will be backfilled with clean soil.

Once the remedial activities are performed a closure report will be submitted for the soils at the site. If you require any additional information or have any questions or comments concerning this work plan, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez, P.G.
Senior Project Manager

cc: Don Riggs – St. Mary Land & Exploration Co.
Mark Bondy – St. Mary Land & Exploration Co.
Jim Amos - BLM

FIGURES

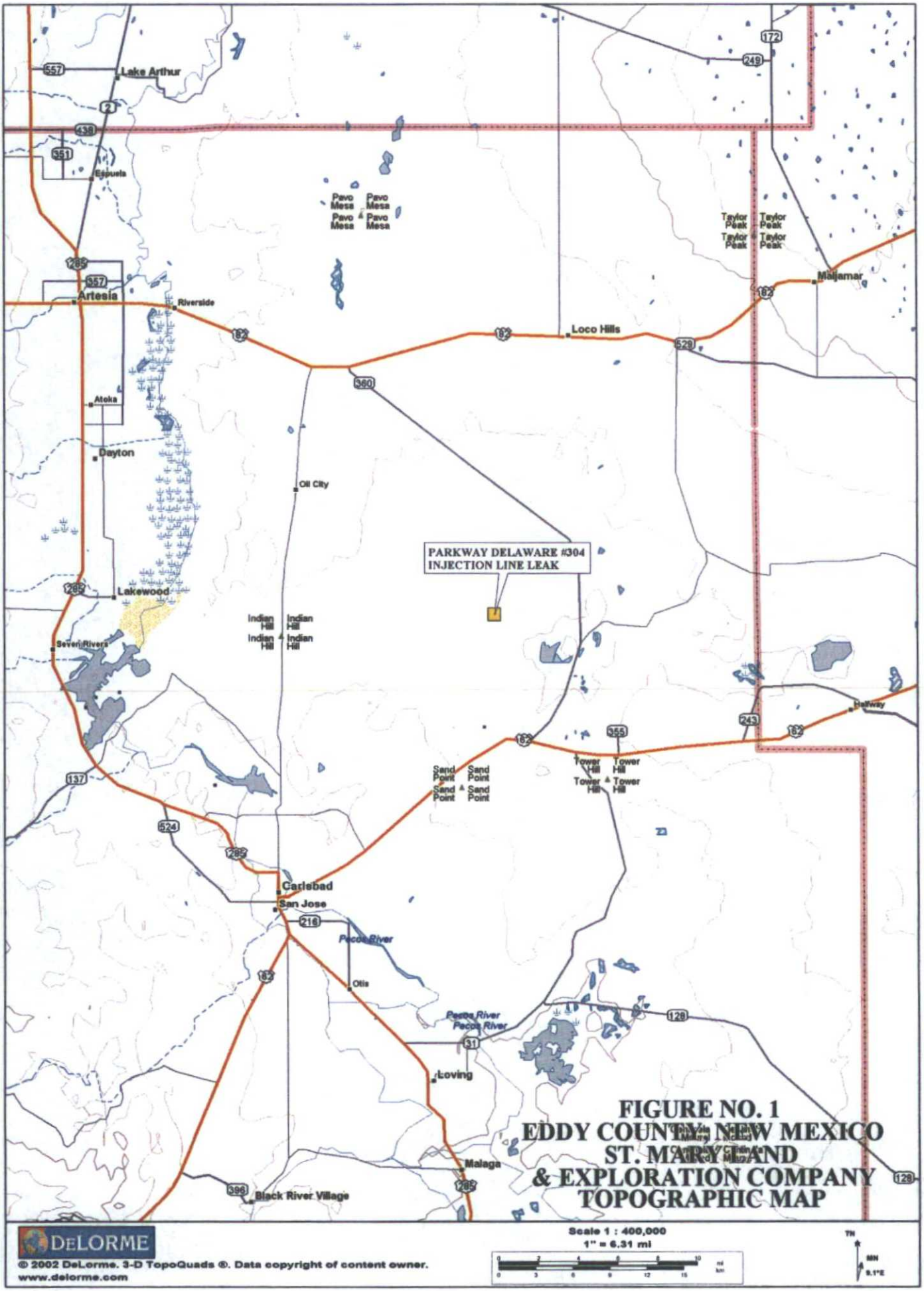


FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
ST. MARY LAND
& EXPLORATION COMPANY
TOPOGRAPHIC MAP

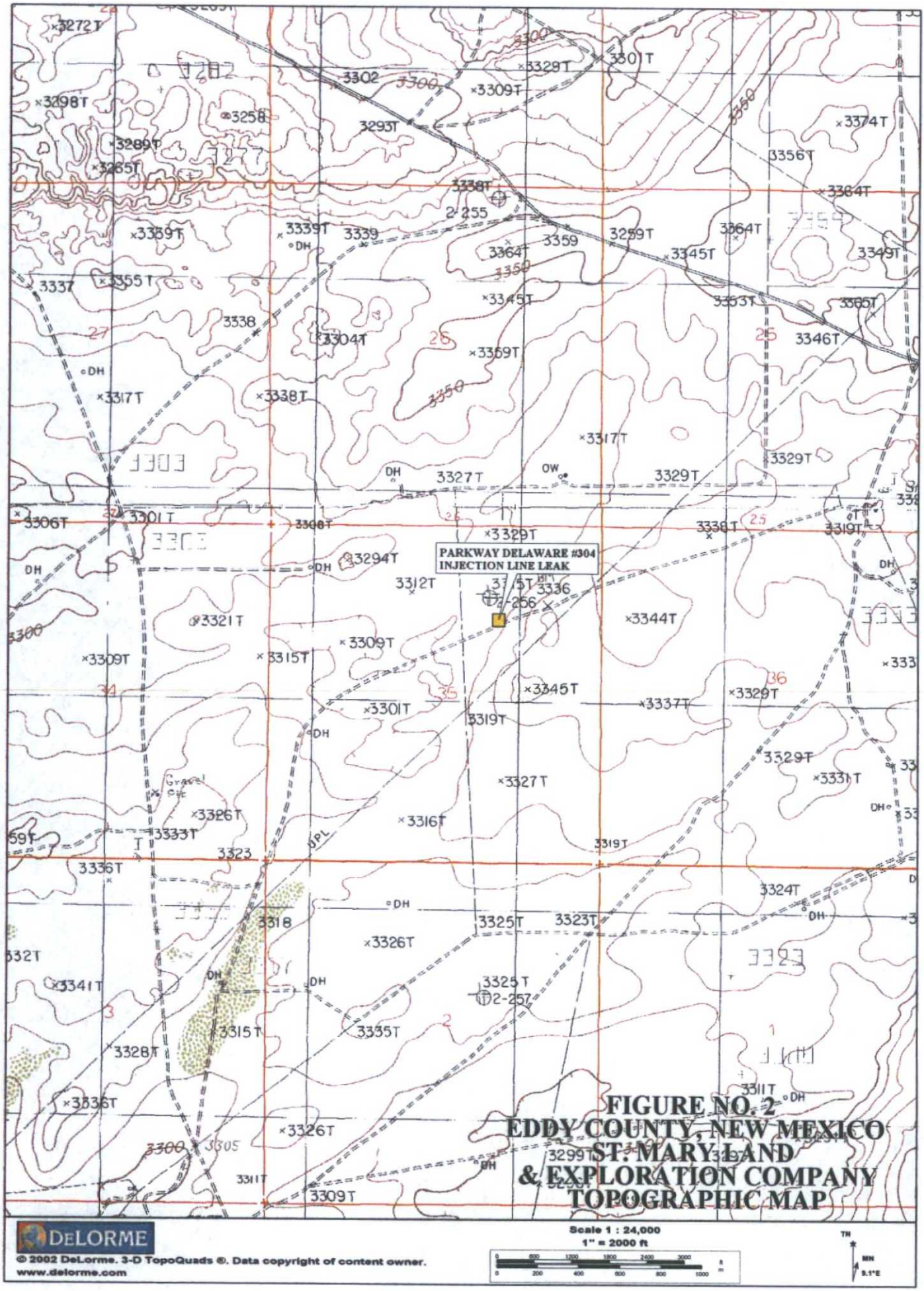
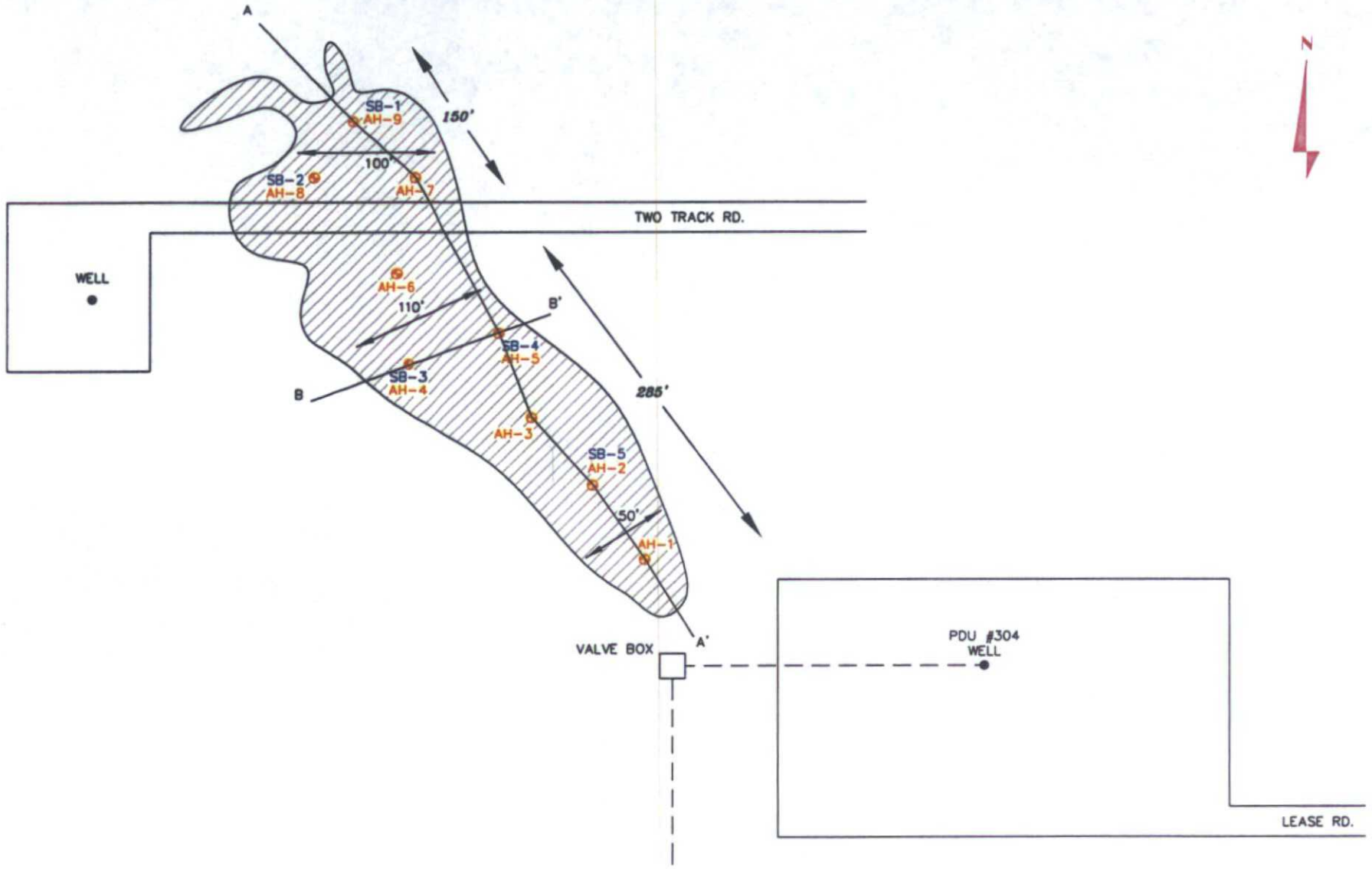


FIGURE NO. 2
EDDY COUNTY, NEW MEXICO
ST. MARY LAND
& EXPLORATION COMPANY
TOPOGRAPHIC MAP



SPILL AREA
AUGER HOLES
SOIL BORING LOCATIONS

NOT TO SCALE

FIGURE NO. 3

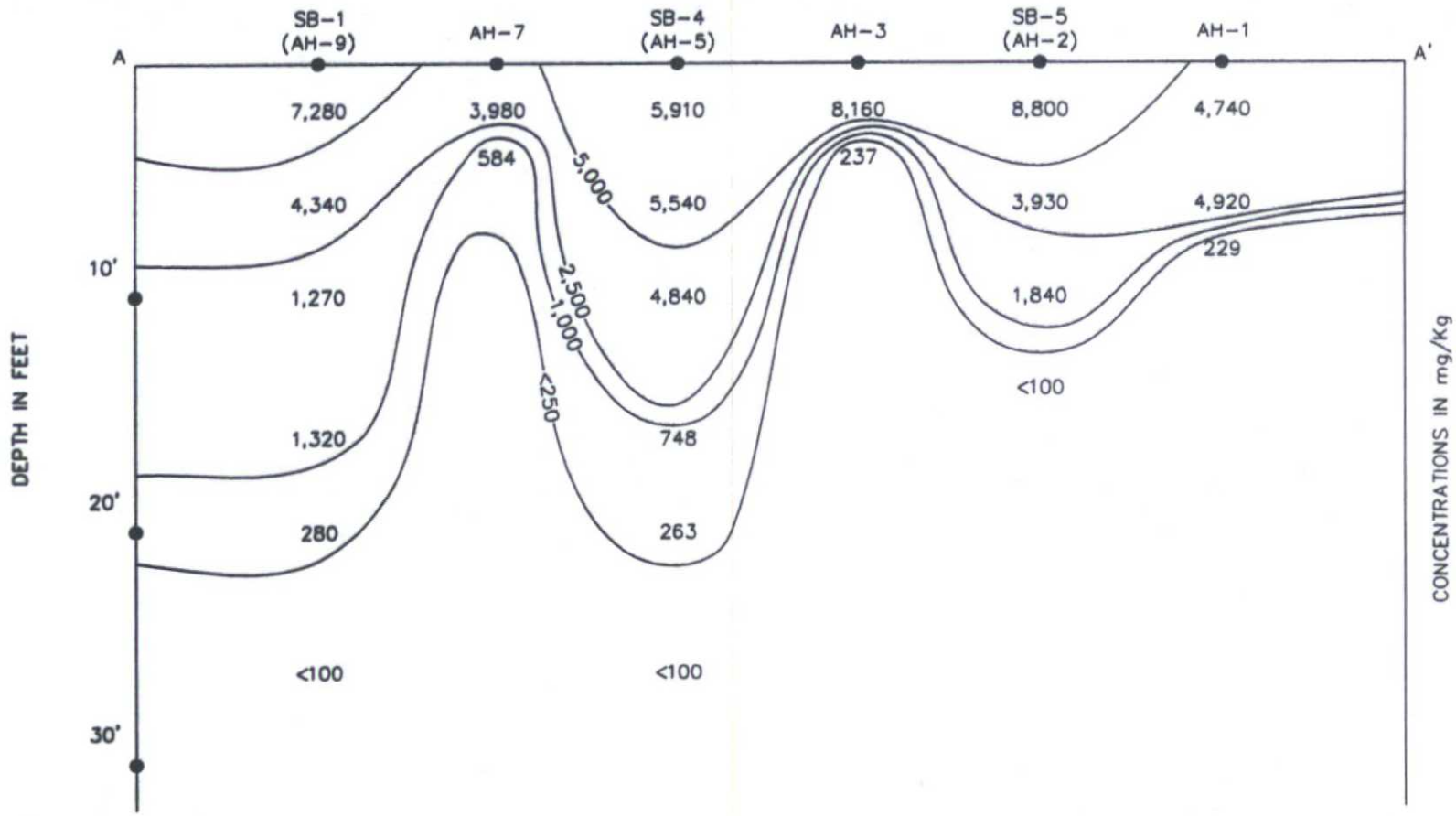
EDDY COUNTY, NEW MEXICO

ST. MARY LAND
& EXPLORATION COMPANY

PARKWAY DELAWARE
INJECTION LINE LEAK

DATE: 8/12/08
DWN. BY: JJ
FILE: N:\ST. MARY\3562

TETRA TECH, INC.
MIDLAND, TEXAS



NOT TO SCALE

FIGURE NO. 4

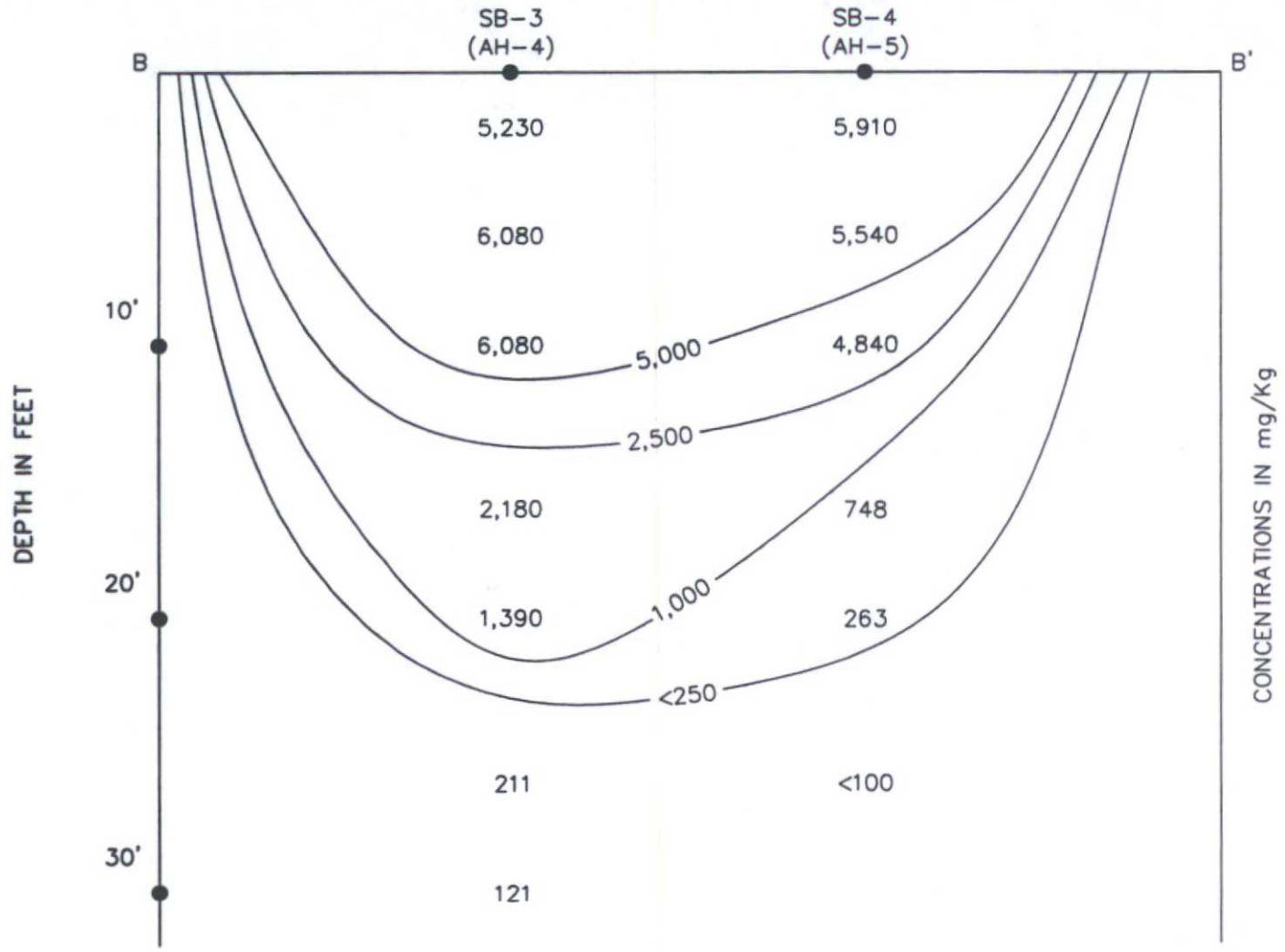
EDDY COUNTY, NEW MEXICO

ST. MARY LAND
& EXPLORATION COMPANY

PARKWAY DELAWARE
INJECTION LINE LEAK
CROSS SECTION A-A'

DATE: 8/12/08
DWN. BY: JJ
FILE: H:\ST. MARY_3582

TETRA TECH, INC.
MIDLAND, TEXAS



NOT TO SCALE

FIGURE NO. 5

EDDY COUNTY, NEW MEXICO

ST. MARY LAND & EXPLORATION COMPANY

PARKWAY DELAWARE INJECTION LINE LEAK CROSS SECTION B-B'

DATE: 8/12/08
DWN. BY: JJ
FILE: H:\ST. MARY\3542

TETRA TECH, INC.
MIDLAND, TEXAS

FIGURE NO. 6

EDDY COUNTY, NEW MEXICO

ST. MARY LAND & EXPLORATION COMPANY

PARKWAY DELAWARE INJECTION LINE LEAK

DATE: 8/12/08

DWN. BY: JJ

FILE: H:\ST. MARY\3562

TETRA TECH, INC.
MIDLAND, TEXAS

TABLES

Table 1
St. Mary Land & Production Company
Parkway Delaware Injection Line Leak
Eddy County, New Mexico

Sample ID	Soils Status		Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Insitu	Removed			DRO	GRO	Total					
AH-1	X		7/21/2008	0-1	393.0	2.09	395.09	<0.001	<0.001	<0.001	0.0324	3,620
	X			1-1.5	-	-	-	-	-	-	-	4,740
	X			2-2.5	-	-	-	-	-	-	-	6,650
	X			4-4.5	-	-	-	-	-	-	-	4,860
	X			6-6.5	-	-	-	-	-	-		4,920
	X			8-8.5	-	-	-	-	-	-	-	229
AH-2	X		7/21/2008	0-1	<50.0	1.27	1.27	<0.001	<0.001	<0.001	<0.001	6,970
	X			1-1.5	-	-	-	-	-	-	-	8,800
	X			2-2.5	-	-	-	-	-	-	-	8,620
	X			4-4.5	-	-	-	-	-	-	-	2,870
	X			6-6.5	-	-	-	-	-	-	-	3,930
	X			8-8.5	-	-	-	-	-	-	-	1,250
SB-5 (AH-2)	X		8/27/2008	9-10	-	-	-	-	-	-	-	1,840
	X			13-15	-	-	-	-	-	-	-	<100
	X			18-20	-	-	-	-	-	-	-	<100
	X			23-25	-	-	-	-	-	-	-	<100
	X			28-30	-	-	-	-	-	-	-	<100
AH-3	X		7/21/2008	0-1	<50.0	1.21	1.21	<0.001	<0.001	<0.001	<0.001	6,680
	X			1-1.5	-	-	-	-	-	-	-	8,160
	X			2-2.5	-	-	-	-	-	-	-	8,400
	X			3-3.5	-	-	-	-	-	-	-	237

(-) Not Analyzed

Liner Installation (4.0' below surface)

Proposed Excavation Depths

Table 1
St. Mary Land & Production Company
Parkway Delaware Injection Line Leak
Eddy County, New Mexico

Sample ID	Soils Status		Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Insitu	Removed			DRO	GRO	Total					
AH-4	X		7/21/2008	0-1	242.0	5.96	247.96	<0.001	<0.001	<0.001	<0.001	5,950
	X			1-1.5	-	-	-	-	-	-	-	5,230
	X			2-2.5	-	-	-	-	-	-	-	5,140
	X			4-4.5	-	-	-	-	-	-	-	5,570
	X			6-6.5	-	-	-	-	-	-	-	6,080
	X			8-8.5	-	-	-	-	-	-	-	4,750
	X			10-10.5	-	-	-	-	-	-	-	6,080
SB-3 (AH-4)	X		8/27/2008	13-15	-	-	-	-	-	-	-	2,180
	X			18-20	-	-	-	-	-	-	-	1,390
	X			23-25	-	-	-	-	-	-	-	211
	X			28-30	-	-	-	-	-	-	-	121
AH-5	X		7/21/2008	0-1	<50.0	1.94	1.94	<0.001	<0.001	<0.001	<0.001	6,490
	X			1-1.5	-	-	-	-	-	-	-	5,910
	X			2-2.5	-	-	-	-	-	-	-	5,060
	X			4-4.5	-	-	-	-	-	-	-	6,280
	X			6-6.5	-	-	-	-	-	-	-	5,540
	X			7-7.5	-	-	-	-	-	-	-	2,190
SB-4 (AH-5)	X		8/27/2008	8-10	-	-	-	-	-	-	-	4,840
	X			13-15	-	-	-	-	-	-	-	748
	X			18-20	-	-	-	-	-	-	-	263
	X			23-25	-	-	-	-	-	-	-	<100
	X			28-30	-	-	-	-	-	-	-	133
	X			33-35	-	-	-	-	-	-	-	<100

(-) Not Analyzed

Liner Installation (4.0' below surface)

Proposed Excavation Depths

Table 1
St. Mary Land & Production Company
Parkway Delaware Injection Line Leak
Eddy County, New Mexico

Sample ID	Soils Status		Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Insitu	Removed			DRO	GRO	Total					
AH-6	X		7/21/2008	0-1	<50.0	1.21	1.13	-	-	-	-	6,620
	X			1-1.5	-	-	-	-	-	-	-	6,060
	X			2-2.5	-	-	-	-	-	-	-	5,450
	X			4-4.5	-	-	-	-	-	-	-	4,300
	X			5-5.5	-	-	-	-	-	-	-	475
AH-7	X		7/21/2008	0-1	<50.0	<1.0	<50.0	-	-	-	-	5,830
	X			1-1.5	-	-	-	-	-	-	-	3,980
	X			2-2.5	-	-	-	-	-	-	-	2,390
	X			3-3.5	-	-	-	-	-	-	-	584
AH-8	X		7/21/2008	0-1	<50.0	1.08	1.08	-	-	-	-	5,560
	X			1-1.5	-	-	-	-	-	-	-	6,240
	X			2-2.5	-	-	-	-	-	-	-	6,760
	X			4-4.5	-	-	-	-	-	-	-	2,070
SB-2 (AH-8)	X		8/27/2008	3-5	-	-	-	-	-	-	-	5,630
	X			8-10	-	-	-	-	-	-	-	3,160
	X			13-15	-	-	-	-	-	-	-	979
	X			18-20	-	-	-	-	-	-	-	311
	X			23-25	-	-	-	-	-	-	-	<100
	X			28-30	-	-	-	-	-	-	-	<100

(-) Not Analyzed

Liner Installation (4.0' below surface)

Proposed Excavation Depths

Table 1
St. Mary Land & Production Company
Parkway Delaware Injection Line Leak
Eddy County, New Mexico

Sample ID	Soils Status		Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Insitu	Removed			DRO	GRO	Total					
AH-9	X		7/21/2008	0-1	<50.0	<1.0	<50.0	-	-	-	-	6,280
	X			1-1.5	-	-	-	-	-	-	-	7,280
	X			2-2.5	-	-	-	-	-	-	-	6,120
	X			4-4.5	-	-	-	-	-	-	-	4,340
	X			6-6.5	-	-	-	-	-	-	-	4,380
	X			8-8.5	-	-	-	-	-	-	-	6,790
	X			10-10.5	-	-	-	-	-	-	-	1,270
SB-1 (AH-9)	X		8/27/2008	13-15	-	-	-	-	-	-	-	1,320
	X			18-20	-	-	-	-	-	-	-	280
SB-1 (AH-9)	X			23-25	-	-	-	-	-	-	-	<100
	X			28-30	-	-	-	-	-	-	-	<100

(-) Not Analyzed

Liner Installation (4.0' below surface)

Proposed Excavation Depths

APPENDIX A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

JUL 16 2008
OCD-ARTESIA

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

iSEB0819849612
nSEB0819849476 154903

OPERATOR

☒ Initial Report ☐ Final Repor

Name of Company ST. MARY LAND & EXPLORATION	Contact TOM MORROW
Address 3300 N. A. ST. BLDG 7, SUITE 200, MIDLAND TX 79705	Telephone No. 432-688-1773
Facility Name PDU 304 30-015-29503	Facility Type INJECTION WELL

Surface Owner BLM	Mineral Owner BLM	Lease No. NM - 67102

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	35	19S	29E	1485	NORTH	1485	EAST	EDDY

Latitude_____ Longitude_____

NATURE OF RELEASE

Type of Release PRODUCED WATER	Volume of Release 275 BBLS	Volume Recovered 80 BBLS
Source of Release 2" INJ. LATERAL LINE & 2" BALL VALVE	Date and Hour of Occurrence 7/13/08 (MORNING ??)	Date and Hour of Discovery 7/13/08 10:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD (VOICEMAIL 104) @ 1:34 PM JIM AMOS W/BLM @ 1:50 PM	
By Whom? BILL HEARNE	Date and Hour 7/13/08 (SEE ABOVE TIMES)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
CAUSE: BALL VALVE FAILURE ON 2" INJECTION LATERAL LINE ON THE **PDU 205 INJ. WELL .**
REMEDIAL ACTION TAKEN: SHUT IN **PDU 205 INJ WELL** & PICKED UP STANDING FLUID AND MAKE REPAIRS TO BALLVALVE & LINE.

Describe Area Affected and Cleanup Action Taken.*
AFFECTED AREA: 435' X 125' PASTURE LAND
CLEANUP ACTION: PICKED UP ALL STANDING FLUID, WAITING ON ORDERS FROM BLM/OCD AND HIGHLANDER ENVIRONMENTAL EVALUATION BEFORE FUTHER CLEANUP ACTION AND REMEDIATION IS TAKEN.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Donna Huddleston	OIL CONSERVATION DIVISION
Printed Name: Donna Huddleston	Approved by District Supervisor: TGumby EB
Title: Production Tech	Approval Date: 7-16-08 Expiration Date:
E-mail Address: dhuddleston@stmaryland.com	Conditions of Approval: SEE ATTACHED STIPULATIONS Attached ☑ 2RP-200
Date: 07/14/08 Phone: 432-688-1789	

* Attach Additional Sheets If Necessary

SEB0819850075

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
St. Mary Land & Exploration Co. - Parkway Delaware Unit #304 (#205)

16 South 28 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21 **61**	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19 110	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 South 30 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

17 South 28 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 **79**	23	24
30	29	28	27	26	25
31	32	33	34 53	35	36

17 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20 SITE	21	22 **80**	23	24
30	29 **210** **208'**	28	27	26	25
31	32	33	34 **62'**	35SITE **122'**	36

17 South 30 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

18 South 28 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35 65	36

18 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

18 South 30 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)

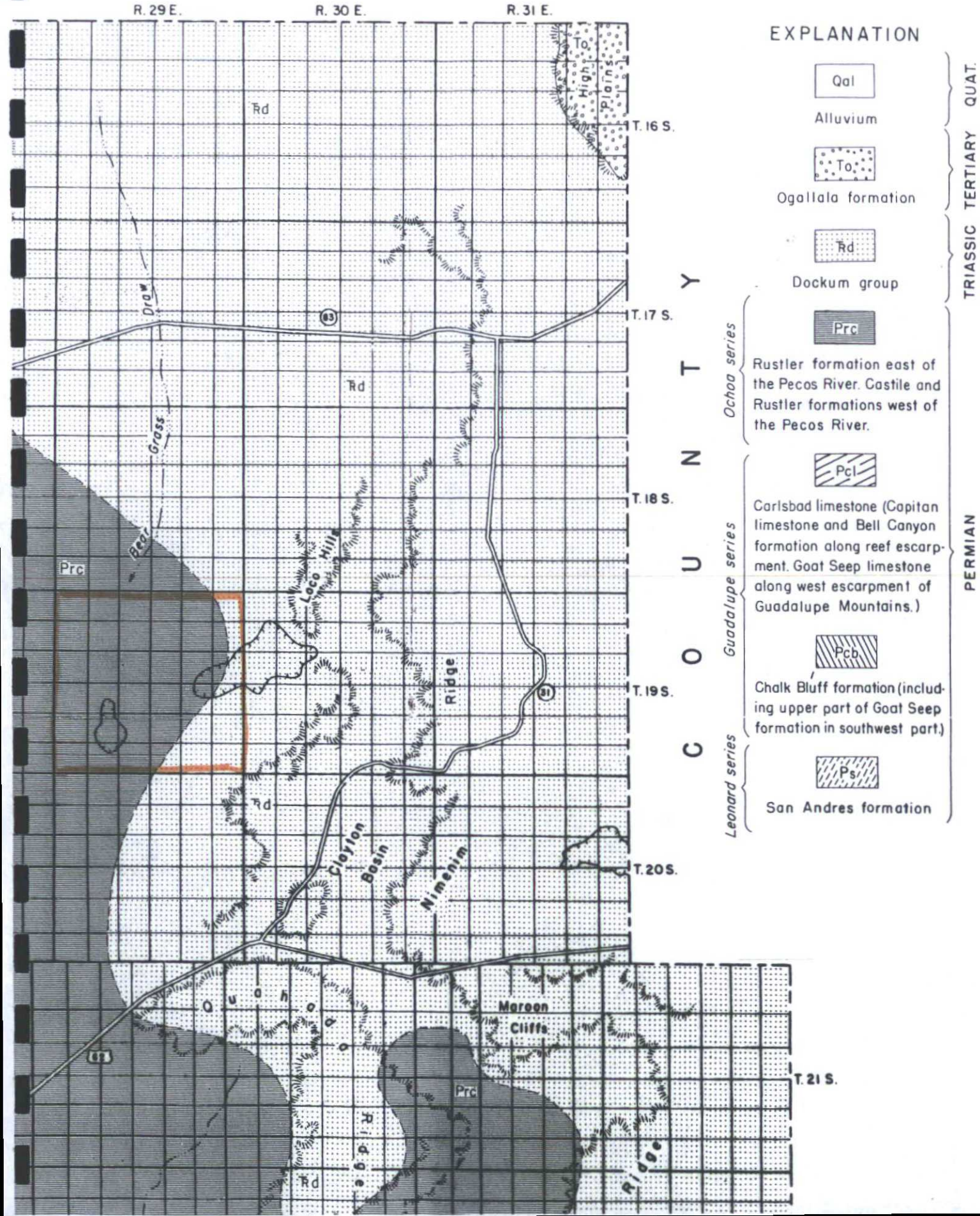
Geology and Groundwater Resources of Eddy County, NM (Report 3)

34 NMOCD - Groundwater Data

123 Field water level - Temporary Wells installed to establish depth to wate

GROUND-WATER REPORT 3 PLATE I

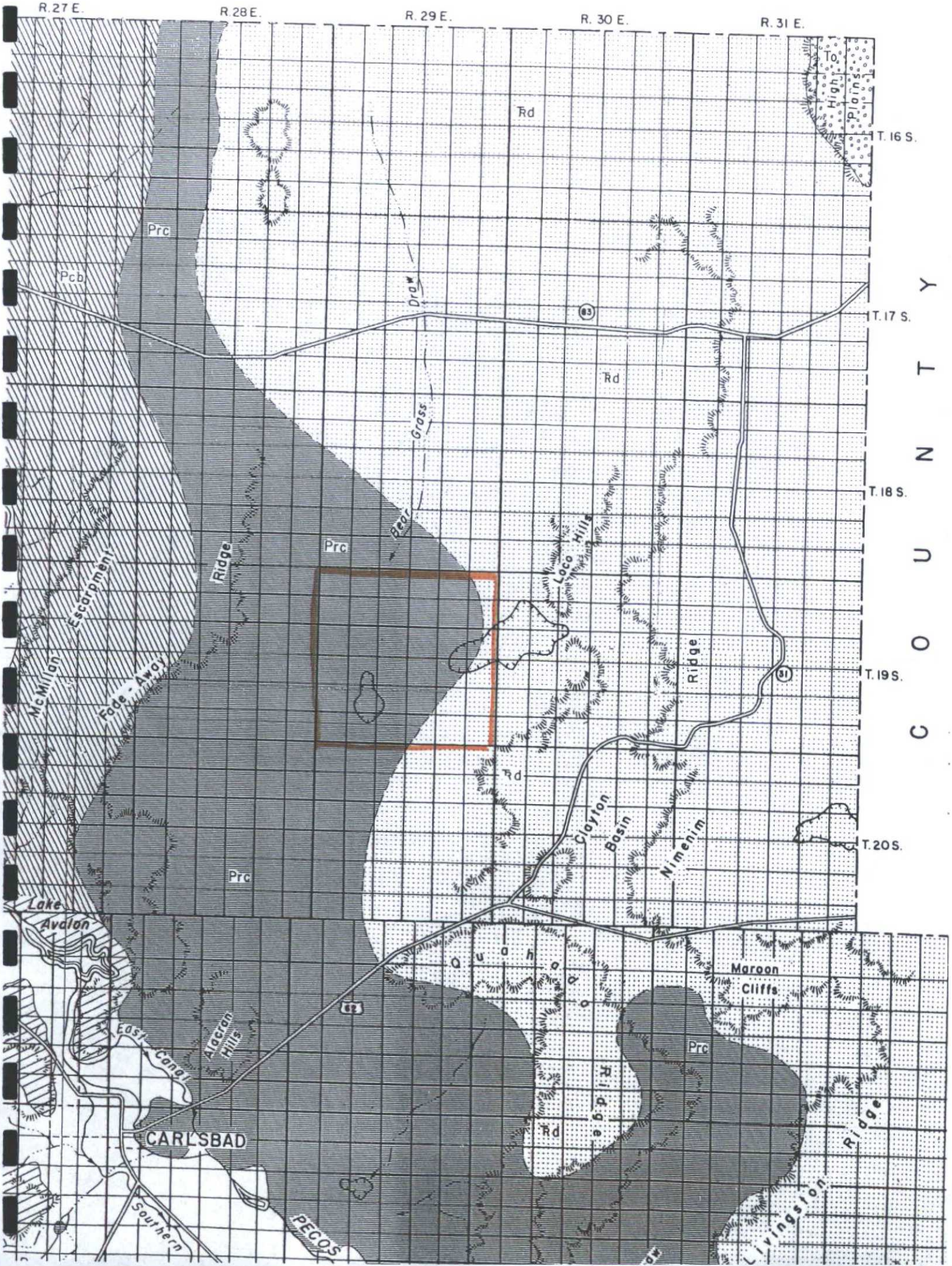
N T Y



EXPLANATION

Qal	Alluvium	QUAT.
To	Ogallala formation	TERTIARY
Rd	Dockum group	TRIASSIC
Prc	Rustler formation east of the Pecos River. Castile and Rustler formations west of the Pecos River.	Ochoa series
Pcl	Carlsbad limestone (Capitan limestone and Bell Canyon formation along reef escarpment. Goat Seep limestone along west escarpment of Guadalupe Mountains.)	Guadalupe series
Pcb	Chalk Bluff formation (including upper part of Goat Seep formation in southwest part.)	Guadalupe series
Ps	San Andres formation	Leonard series

PERMIAN


R. 27 E.
R. 28 E.
R. 29 E.
R. 30 E.
R. 31 E.
To High Plains
T. 16 S.
T. 17 S.
T. 18 S.
T. 19 S.
T. 20 S.
Rd
Prc
Pcb
Draw
Gross
Bear
Ridge
Loco Hills
McMillion Escarpment
Fade-Away
Ridge
Clayton Basin
Nimenim
Lake Avalon
East Canal
Algerian Hills
CARLSBAD
Southern
PECOS
Quahada Ridge
Maroon Cliffs
Livingston Ridge
COUNTY

GROUND WATER REPORT 3 PLATE 4

AVAILABILITY OF GROUND WATER BY AREAS

AREA 1. GUADALUPE MOUNTAINS:

a. Azotea Mesa: Stock and domestic supplies generally available at depths of less than 300 feet in Carlsbad limestone; perched water available locally in arroyo gravels. Irrigation supplies obtainable from Carlsbad limestone and overlying alluvium in La Huerta and Happy Valley, but shallow water in these areas is generally impotable.

b. Guadalupe Ridge and Mountains proper: Potable but generally hard water in small quantities available at depths of several hundred feet in uplands; shallow water available locally in arroyo gravels. Small springs from perched water southeast of White City on Guadalupe Ridge.

c. Seven Rivers embayment: Depths to water cannot be predicted accurately. Shallow wells can be obtained locally along arroyos, but most produce from Queen Sandstone member of Goat Seep limestone at depths as great as 900 feet. Water generally potable. Quantity generally sufficient for stock and domestic supplies.

AREA 2. ALLUVIUM SOUTH OF CARLSBAD:

a. Irrigation supplies generally obtainable. Generally impotable.

b. Stock and domestic supplies generally available at depths ranging from 100 to 225 feet.

AREA 3. BETWEEN GUADALUPE MOUNTAINS AND PECOS RIVER AND SOUTH OF LATITUDE 32°15′:

a. Stock and domestic supplies and, locally, irrigation supplies, obtainable from alluvium at depths generally less than 200 feet.

b. Stock and domestic supplies generally available in gypsum of Castile formation. Impotable over most of eastern part of area but usable for stock.

AREA 4. ROSWELL BASIN:

a. Stock and domestic water available from alluvium or limestones of Chalk Bluff and San Andres formation at depths less than 50 feet on the east to 400 feet in west. Irrigation water available in eastern part.

b. Stock and domestic water available from limestone of San Andres formation at depths from 400 feet on the east to more than 800 feet on the west.

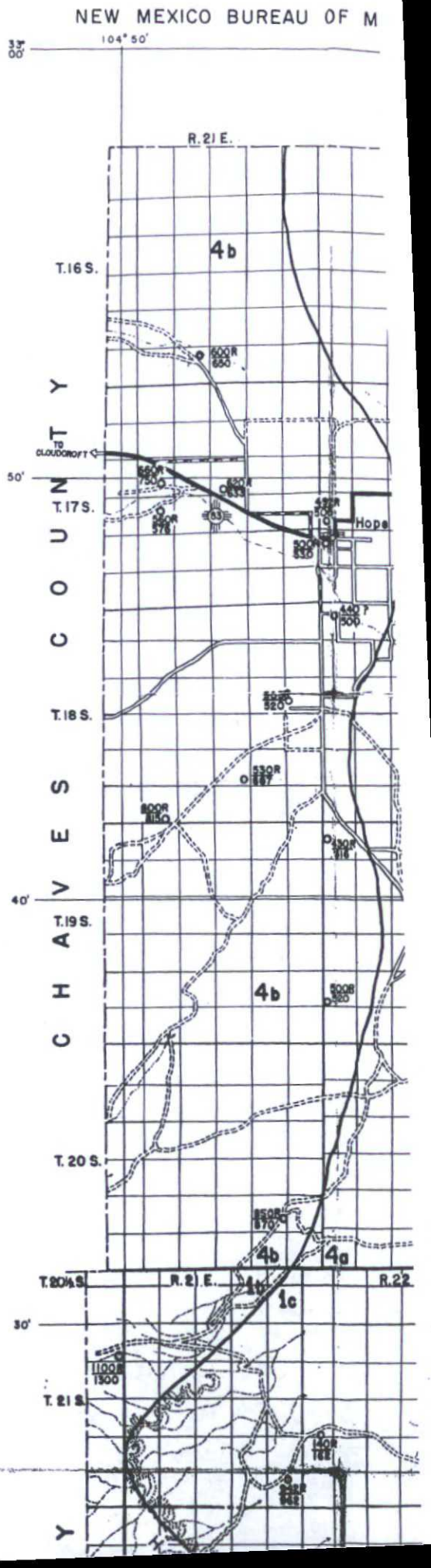
AREA 5. EAST OF PECOS RIVER:

a. Stock and domestic supplies available at depths less than 200 feet in Chalk Bluff formation or Whitehorse group; locally impotable.

b. Stock water generally obtainable at depths less than 250 feet in Rustler formation; generally impotable and locally unfit for livestock.

c. Stock and domestic supplies available at depths less than 300 feet in Triassic redbeds; quality generally fair but locally impotable.

d. Potable water obtainable from sand and gravel or from underlying redbeds at a depth of about 300 feet.



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National Water Information System: Web Interface

USGS Water Resources

Data Category: Ground Water | Geographic Area: New Mexico | GO

News: Recent changes

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 323936104012601
Minimum number of levels = 1

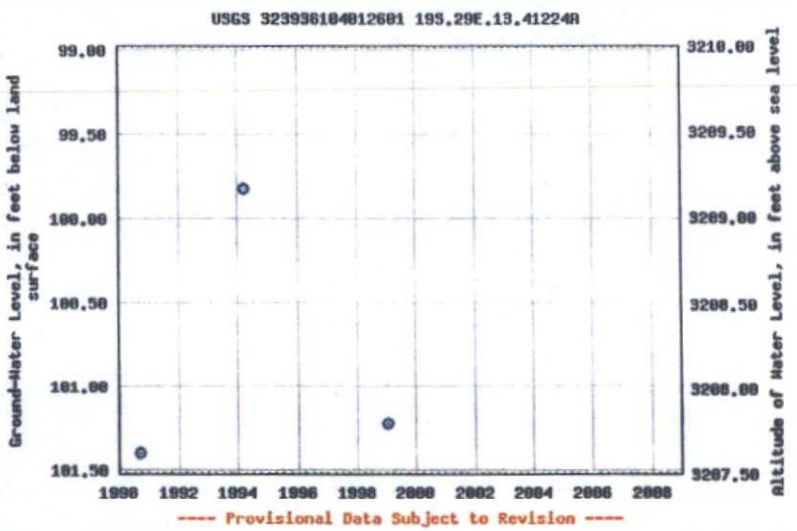
Save file of selected sites to local disk for future upload

USGS 323936104012601 19S.29E.13.41224A

Available data for this site Ground-water: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°39'36", Longitude 104°01'26" NAD27
Land-surface elevation 3,309 feet above sea level NGVD29
The depth of the well is 120.00 feet below land surface.
This well is completed in the RUSTLER FORMATION (312RSLR) local aquifer.

Output formats
Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

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New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: CP(Capitan) Number: 00741 Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

POD / SURFACE DATA REPORT 12/10/2008

* WW

(acre ft per annum) (quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest

DB File Nbr	Use	Diversion	Owner	POD Number	Source	Tws	Rng	Sec	q	q	q	Zc
CP 00741	PRO	0	SIETE OIL & GAS	CP 00741	Shallow	19S	29E	34	2	3	1	

Record Count: 1

New Mexico Office of the State Engineer
Point of Diversion Summary

Back

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y
CP 00741	19S	29E	34	2	3	1			

Driller Licence: 1107 DUBOSE DRILLING, INC.
Driller Name:
Source: Shallow
Drill Start Date: 04/17/1989
Drill Finish Date: 04/20/1989
Log File Date: 04/24/1989
PCW Received Date:
Pump Type:
Pipe Discharge Size:
Casing Size:
Estimated Yield:
Depth Well: 230
Depth Water: 60

New Mexico Office of the State Engineer
Water Right Summary

Back

DB File Nbr: CP 00827
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING
Primary Status: DCL Declaration
Total Acres: 0
Total Diversion: 0
Owner: SNYDER RANCHES
Contact: LARRY C SQUIRES

Documents on File

Doc	File/Act	Status 1 2 3	Trans_Desc	From/To	Acres	Diversion	Consumptive
72121	11/17/1993	DCL PRC CNV	CONVERSION CP	008 T	0	0	

(qtr are 1=NW 2=NE 3=SW 4=SE)
(qtr are biggest to smallest X Y are in Feet UTM are in Meters)

Point of Diversion POD Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y	UTM_Zone	Easting	Northing	Latit
CP 00827		19S	30E	35	3	3					13	598596	3608694	0

New Mexico Office of the State Engineer
Point of Diversion Summary

Back

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y
CP 00827	19S	30E	35	3	3				

Driller Licence:			
Driller Name:		**Source:**	
Drill Start Date:		**Drill Finish Date:**	
Log File Date:		**PCW Received Date:**	
Pump Type:		**Pipe Discharge Size:**	
Casing Size:		**Estimated Yield:**	
Depth Well:	100	**Depth Water:**	

New Mexico Office of the State Engineer

Water Right Summary

Back

DB File Nbr: CP 00828
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING
Primary Status: DCL Declaration
Total Acres: 0
Total Diversion: 0
Owner: SNYDER RANCHES
Contact: LARRY C SQUIRES

Documents on File

Doc	File/Act	Status 1 2 3	Trans_Desc	From/To	Acres	Diversion	Consumptive
72121	11/17/1993	DCL PRC CNV	CONVERSION CP	008 T	0	0	

(qtr are 1=NW 2=NE 3=SW 4=SE)
(qtr are biggest to smallest X Y are in Feet UTM are in Meters)

Point of Diversion POD Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y	UTM_Zone	Easting	Northing	Latit
CP 00828		19S	30E	35	1	1					13	598585	3609900	0

New Mexico Office of the State Engineer
Point of Diversion Summary

Back

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y
CP 00828	19S	30E	35	1	1				

Driller Licence:
Driller Name:
Source:
Drill Start Date:
Drill Finish Date:
Log File Date:
PCW Received Date:
Pump Type:
Pipe Discharge Size:
Casing Size:
Estimated Yield:
Depth Well: 90
Depth Water:

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00646		PRO	ED	1	1	4	07	19S	29E	583155	3615552*	199		
CP 00681		PRO	ED	1	1	3	34	19S	29E	587230	3609127*			
CP 00703		PRO	ED		4	1	36	19S	29E	590945	3609441*	200	115	85
CP 00739		PRO	ED	3	4	4	35	19S	29E	590046	3608532*	200	110	90
CP 00741		PRO	ED	1	3	2	34	19S	29E	588030	3609533*	230	60	170
CP 00820		STK	LE		2	4	13	19S	29E	591713	3613870*	120		
CP 00821		STK	LE		4	4	25	19S	29E	591743	3610248*	120		

Average Depth to Water: 95 feet
Minimum Depth: 60 feet
Maximum Depth: 115 feet

Record Count: 7

PLSS Search:

Township: 19S Range: 29E

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00740		STK	ED	2	3	3	12	20S	29E	590669	3605509*	150		
CP 00745		PRO	ED	4	1	3	12	20S	29E	590666	3605711*	232		
CP 00830		STK	LE		2	1	04	20S	29E	586118	3608193*	120		
CP 00831		STK	LE		2	2	10	20S	29E	588548	3606605*	100		
CP 00832		STK	LE		2	3	12	20S	29E	590971	3605815*	200		
CP 00833		STK	LE		1	2	16	20S	29E	586548	3604978*	100		
CP 00924		STK	ED	3	3	2	30	20S	29E	583259	3601235*	70		
CP 00936 POD1		PLS	ED	3	4	2	30	20S	29E	583661	3601238*	70	52	18

Average Depth to Water: **52 feet**

Minimum Depth: **52 feet**

Maximum Depth: **52 feet**

Record Count: 8

PLSS Search:

Township: 20S Range: 29E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00522		STK	LE			3	30	19S	30E	592347	3610451*	120	90	30
CP 00742		PRO	ED	3	1	3	31	19S	30E	592054	3608940*	223	115	108
CP 00822		STK	LE			4	4	15	19S	30E	598148	3613516*	90		
CP 00823		STK	LE			1	3	17	19S	30E	593715	3613885*	120		
CP 00824		DOM	LE			4	1	20	19S	30E	594129	3612680*	70		
CP 00825		STK	LE			3	4	28	19S	30E	596164	3610282*	100		
CP 00827		STK	LE			3	3	35	19S	30E	598596	3608694*	100		
CP 00828		STK	LE			1	1	35	19S	30E	598585	3609900*	90		

Average Depth to Water: **102 feet**

Minimum Depth: **90 feet**

Maximum Depth: **115 feet**

Record Count: 8

PLSS Search:

Township: 19S Range: 30E

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00419		PRO	ED		4	3	32	20S	30E	594250	3599003*	262	170	92
CP 00431		PRO	ED		2	3	33	20S	30E	595857	3599419*	235	195	40
CP 00532		PRO	XX	4	3	4	21	20S	30E	596328	3602138*	335	150	185
CP 00551		PRO	ED	1	1	1	33	20S	30E	595343	3600320*	286	187	99
CP 00834		STK	LE		2	3	06	20S	30E	592566	3607436*	120		

Average Depth to Water: 175 feet
Minimum Depth: 150 feet
Maximum Depth: 195 feet

Record Count: 5

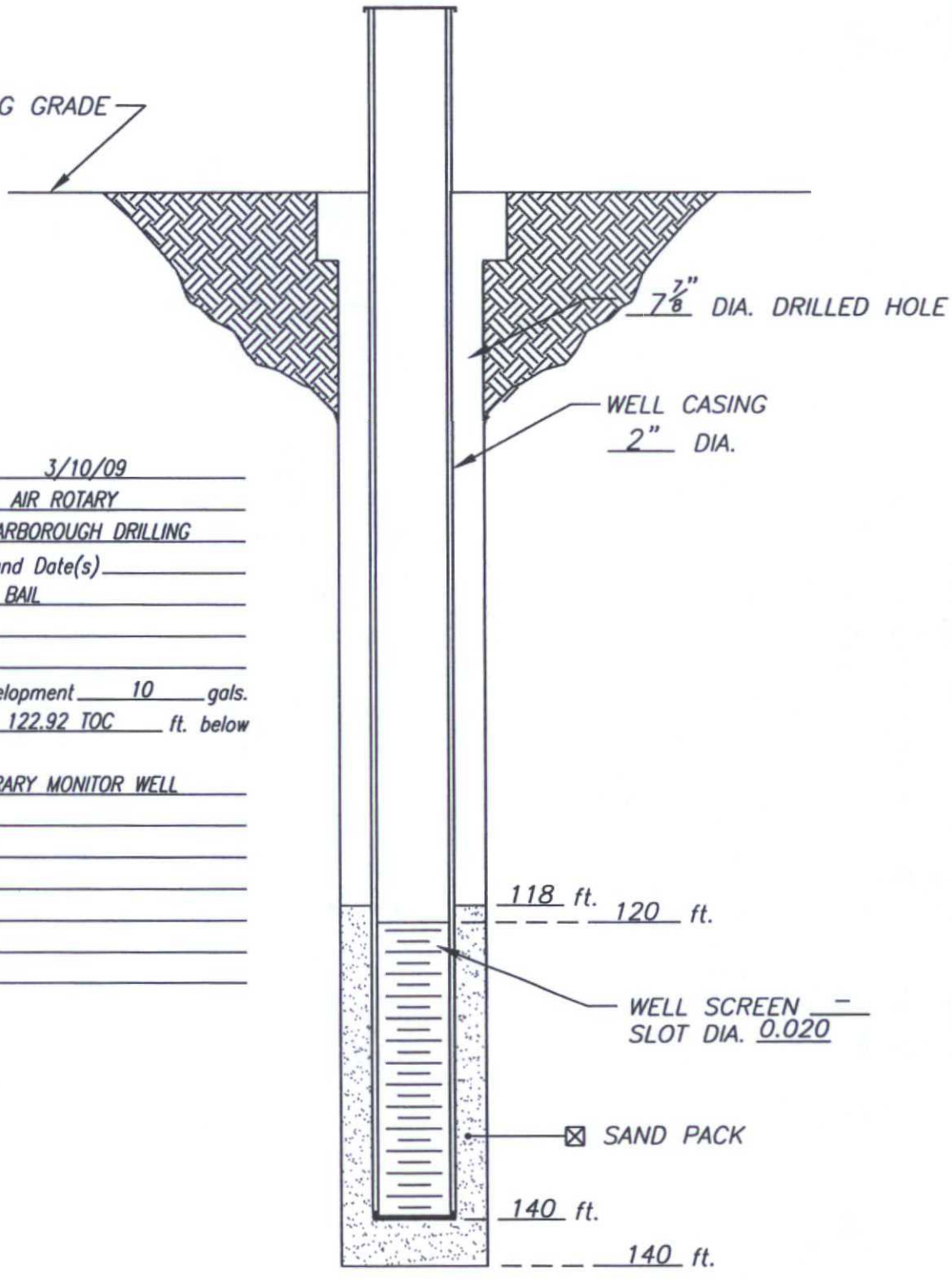
PLSS Search:

Township: 20S Range: 30E

*UTM location was derived from PLSS - see Help

APPENDIX C

TEMPORARY WELL CONSTRUCTION LOG



Installation Date(s) 3/10/09
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HAND BAIL

Water Removed During Development 10 gals.
Static Depth to Water 122.92 TOC ft. below Ground Level
Well Purpose TEMPORARY MONITOR WELL

Remarks

DATE: 3/10/09	CLIENT: ST. MARY LAND & EXPLRATION	WELL NO.
TETRA TECH, INC. MIDLAND, TEXAS	PROJECT: PARKWAY DELAWARE #205 (115-6403562)	TMW-1
	LOCATION: EDDY COUNTY, NEW MEXICO	

SAMPLE LOG

Boring/Well: TMW-1
Project Number: 3562
Client: St. Mary Land and Exploration
Site Location: Parkway Delaware #205
Location: Eddy County, New Mexico
Total Depth 140
Date Installed: 03/10/09

DEPTH (ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Brown, fine grain sand, loose, clean
5-10	--	White, gypsum and caliche
10-15	--	Tan, fine grain sand, nodules of gypsum and caliche, loose
15-25	--	Tan, fine grain sand, trace of gypsum and caliche, loose
25-35	--	Tan, fine grain sand and silty sand, loose, clean
35-55	--	Tan, gravel and fine grain sand
55-65	--	Red, clay - shale
65-80	--	Red, clay - shale, trace of silty sand
80-85	--	Red, clay - shale
85-90	--	Lt. Brown, very fine grain sand
90-100	--	Yellow, shale and trace of very fine grain sand
100-135	--	Yellow, shale and some green shale
135-140	--	Black and gray shale (blue shale)
		TD-140'

SAMPLE LOG

Boring/Well: SB-5
Project Number: 3562
Client: St. Mary Land and Exploration
Site Location: Parkway Delaware #205
Location: Eddy County, New Mexico
Total Depth 30
Date Installed: 08/27/08

DEPTH (in feet)	OVM	SAMPLE DESCRIPTION
8-10	--	Tan fine grain sand intermixed with gypsum
13-15	--	Tan fine grain sand intermixed with gypsum
18-20	--	Tan fine grain sand intermixed with gypsum
23-25	--	Tan fine grain sand intermixed with gypsum
28-30	--	Reddish/tan fine grain sand

Boring completed at 30 feet bgs

SAMPLE LOG

Boring/Well: SB-4
Project Number: 3562
Client: St. Mary Land and Exploration
Site Location: Parkway Delaware #205
Location: Eddy County, New Mexico
Total Depth 35
Date Installed: 08/27/08

DEPTH (in feet)	OVM	SAMPLE DESCRIPTION
8-10	--	Tan fine grain sandy limestone
13-15	--	Tan fine grain sand intermixed with gypsum
18-20	--	Tan fine grain sand intermixed with gypsum
23-25	--	Reddish/tan fine grain sand intermixed with gypsum
28-30	--	Reddish/tan fine grain sand intermixed with gypsum
33-35	--	Reddish/tan fine grain sand intermixed with gypsum

Boring completed at 35 feet bgs

SAMPLE LOG

Boring/Well: SB-3
Project Number: 3562
Client: St. Mary Land and Exploration
Site Location: Parkway Delaware #205
Location: Eddy County, New Mexico
Total Depth 30
Date Installed: 08/27/08

DEPTH (in feet)	OVM	SAMPLE DESCRIPTION
13-15	--	Tan fine grain well sorted sand
18-20	--	Tan fine grain well sorted sand
23-25	--	Tan fine grain well sorted sand
28-30	--	Tan fine grain well sorted sand

Boring completed at 30 feet bgs

SAMPLE LOG

Boring/Well: SB-2
Project Number: 3562
Client: St. Mary Land and Exploration
Site Location: Parkway Delaware #205
Location: Eddy County, New Mexico
Total Depth 30
Date Installed: 08/27/08

DEPTH (in feet)	OVM	SAMPLE DESCRIPTION
3-5	--	Dark gray/brown clay
8-10	--	Dark brown fine grain sand
13-15	--	Light brown fine grain sand
18-20	--	Tan fine grain well sorted sand
23-25	--	Tan well sorted fine grain sand
28-30	--	Tan well sorted fine grain sand

Boring completed at 30 feet bgs

SAMPLE LOG

Boring/Well: SB-1
Project Number: 3562
Client: St. Mary Land and Exploration
Site Location: Parkway Delaware #205
Location: Eddy County, New Mexico
Total Depth 30
Date Installed: 08/27/08

DEPTH (in feet)	OVM	SAMPLE DESCRIPTION
13-15	--	Tan medium/coarse sand
18-20	--	Tan medium/coarse sand
23-25	--	Tan fine grain well sorted sand
28-30	--	Tan fine grain well sorted sand

Boring completed at 30 feet bgs

APPENDIX D

Summary Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: July 31, 2008

Work Order: 8072329

Project Location: Eddy Co, NM
Project Name: St. Mary - PDU 304 (205 Inj. Well)
Project Number: 3562

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
167970	AH-1 0-1'	soil	2008-07-21	00:00	2008-07-23
167971	AH-1 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167972	AH-1 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167973	AH-1 4-4.5'	soil	2008-07-21	00:00	2008-07-23
167974	AH-1 6-6.5'	soil	2008-07-21	00:00	2008-07-23
167975	AH-1 8-8.5'	soil	2008-07-21	00:00	2008-07-23
167976	AH-2 0-1'	soil	2008-07-21	00:00	2008-07-23
167977	AH-2 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167978	AH-2 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167979	AH-2 4-4.5'	soil	2008-07-21	00:00	2008-07-23
167980	AH-2 6-6.5'	soil	2008-07-21	00:00	2008-07-23
167981	AH-2 8-8.5'	soil	2008-07-21	00:00	2008-07-23
167982	AH-3 0-1'	soil	2008-07-21	00:00	2008-07-23
167983	AH-3 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167984	AH-3 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167985	AH-3 3-3.5'	soil	2008-07-21	00:00	2008-07-23
167986	AH-4 0-1'	soil	2008-07-21	00:00	2008-07-23
167987	AH-4 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167988	AH-4 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167989	AH-4 4-4.5'	soil	2008-07-21	00:00	2008-07-23
167990	AH-4 6-6.5'	soil	2008-07-21	00:00	2008-07-23
167991	AH-4 8-8.5'	soil	2008-07-21	00:00	2008-07-23
167992	AH-4 10-10.5'	soil	2008-07-21	00:00	2008-07-23
167993	AH-5 0-1'	soil	2008-07-21	00:00	2008-07-23
167994	AH-5 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167995	AH-5 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167996	AH-5 4-4.5'	soil	2008-07-21	00:00	2008-07-23
167997	AH-5 6-6.5'	soil	2008-07-21	00:00	2008-07-23
167998	AH-5 7-7.5'	soil	2008-07-21	00:00	2008-07-23
167999	AH-6 0-1'	soil	2008-07-21	00:00	2008-07-23

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
168000	AH-6 1-1.5'	soil	2008-07-21	00:00	2008-07-23
168001	AH-6 2-2.5'	soil	2008-07-21	00:00	2008-07-23
168002	AH-6 4-4.5'	soil	2008-07-21	00:00	2008-07-23
168003	AH-6 5.5-6'	soil	2008-07-21	00:00	2008-07-23
168004	AH-7 0-1'	soil	2008-07-21	00:00	2008-07-23
168005	AH-7 1-1.5'	soil	2008-07-21	00:00	2008-07-23
168006	AH-7 2-2.5'	soil	2008-07-21	00:00	2008-07-23
168007	AH-7 3-3.5'	soil	2008-07-21	00:00	2008-07-23
168008	AH-8 0-1'	soil	2008-07-21	00:00	2008-07-23
168009	AH-8 1-1.5'	soil	2008-07-21	00:00	2008-07-23
168010	AH-8 2-2.5'	soil	2008-07-21	00:00	2008-07-23
168011	AH-8 4-4.5'	soil	2008-07-21	00:00	2008-07-23
168012	AH-9 0-1'	soil	2008-07-21	00:00	2008-07-23
168013	AH-9 1-1.5'	soil	2008-07-21	00:00	2008-07-23
168014	AH-9 2-2.5'	soil	2008-07-21	00:00	2008-07-23
168015	AH-9 4-4.5'	soil	2008-07-21	00:00	2008-07-23
168016	AH-9 6-6.5'	soil	2008-07-21	00:00	2008-07-23
168017	AH-9 8-8.5'	soil	2008-07-21	00:00	2008-07-23
168018	AH-9 8.5-9'	soil	2008-07-21	00:00	2008-07-23

	BTEX				TPH DRO	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
167970 - AH-1 0-1'	<0.0100	<0.0100	<0.0100	**0.0324**	**393**	**2.09**
167976 - AH-2 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**1.27**
167982 - AH-3 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**1.21**
167986 - AH-4 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	**242**	**5.96**
167993 - AH-5 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**1.94**
167999 - AH-6 0-1'					<50.0	**1.13**
168004 - AH-7 0-1'					<50.0	<1.00
168008 - AH-8 0-1'					<50.0	**1.08**
168012 - AH-9 0-1'					<50.0	<1.00

Sample: 167970 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**3620**	mg/Kg	2.00

Sample: 167971 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**4740**	mg/Kg	2.00

Sample: 167972 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**6650**	mg/Kg	2.00

Sample: 167973 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**4860**	mg/Kg	2.00

Sample: 167974 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**4920**	mg/Kg	2.00

Sample: 167975 - AH-1 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**229**	mg/Kg	2.00

Sample: 167976 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		**6970**	mg/Kg	2.00

Sample: 167977 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**8800**	mg/Kg	2.00

Sample: 167978 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**8620**	mg/Kg	2.00

Sample: 167979 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**2870**	mg/Kg	2.00

Sample: 167980 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**3930**	mg/Kg	2.00

Sample: 167981 - AH-2 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**1250**	mg/Kg	2.00

Sample: 167982 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		**6680**	mg/Kg	2.00

Sample: 167983 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**8160**	mg/Kg	2.00

Sample: 167984 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**8400**	mg/Kg	2.00

Sample: 167985 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**237**	mg/Kg	2.00

Sample: 167986 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		**5950**	mg/Kg	2.00

Sample: 167987 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**5230**	mg/Kg	2.00

Sample: 167988 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**5140**	mg/Kg	2.00

Sample: 167989 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**5570**	mg/Kg	2.00

Sample: 167990 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**6080**	mg/Kg	2.00

Sample: 167991 - AH-4 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**4750**	mg/Kg	2.00

Sample: 167992 - AH-4 10-10.5'

Param	Flag	Result	Units	RL
Chloride		**6080**	mg/Kg	2.00

Sample: 167993 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		**6490**	mg/Kg	2.00

Sample: 167994 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**5910**	mg/Kg	2.00

Sample: 167995 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**5060**	mg/Kg	2.00

Sample: 167996 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**6280**	mg/Kg	2.00

Sample: 167997 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**5540**	mg/Kg	2.00

Sample: 167998 - AH-5 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**2190**	mg/Kg	2.00

Sample: 167999 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		**6620**	mg/Kg	2.00

Sample: 168000 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**6060**	mg/Kg	2.00

Sample: 168001 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**5450**	mg/Kg	2.00

Sample: 168002 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**4300**	mg/Kg	2.00

Sample: 168003 - AH-6 5.5-6'

Param	Flag	Result	Units	RL
Chloride		**475**	mg/Kg	2.00

Sample: 168004 - AH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		**5830**	mg/Kg	2.00

Sample: 168005 - AH-7 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**3980**	mg/Kg	2.00

Sample: 168006 - AH-7 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2390**	mg/Kg	2.00

Sample: 168007 - AH-7 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**584**	mg/Kg	2.00

Sample: 168008 - AH-8 0-1'

Param	Flag	Result	Units	RL
Chloride		**5560**	mg/Kg	2.00

Sample: 168009 - AH-8 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**6240**	mg/Kg	2.00

Sample: 168010 - AH-8 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**6760**	mg/Kg	2.00

Sample: 168011 - AH-8 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**2070**	mg/Kg	2.00

Sample: 168012 - AH-9 0-1'

Param	Flag	Result	Units	RL
Chloride		**6280**	mg/Kg	2.00

Sample: 168013 - AH-9 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**7280**	mg/Kg	2.00

Sample: 168014 - AH-9 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**6120**	mg/Kg	2.00

Sample: 168015 - AH-9 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**4340**	mg/Kg	2.00

Sample: 168016 - AH-9 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**4380**	mg/Kg	2.00

Sample: 168017 - AH-9 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**6790**	mg/Kg	2.00

Sample: 168018 - AH-9 8.5-9'

Param	Flag	Result	Units	RL
Chloride		**1270**	mg/Kg	2.00

TRACEANALYSIS, INC.

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NELAP Certifications

Lubbock T104704219-08-TX El Paso T104704221-08-TX Midland T104704392-08-TX

Analytical and Quality Control Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: July 31, 2008

Work Order: 8072329

Project Location: Eddy Co, NM
Project Name: St. Mary - PDU 304 (205 Inj. Well)
Project Number: 3562

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
167970	AH-1 0-1'	soil	2008-07-21	00:00	2008-07-23
167971	AH-1 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167972	AH-1 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167973	AH-1 4-4.5'	soil	2008-07-21	00:00	2008-07-23
167974	AH-1 6-6.5'	soil	2008-07-21	00:00	2008-07-23
167975	AH-1 8-8.5'	soil	2008-07-21	00:00	2008-07-23
167976	AH-2 0-1'	soil	2008-07-21	00:00	2008-07-23
167977	AH-2 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167978	AH-2 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167979	AH-2 4-4.5'	soil	2008-07-21	00:00	2008-07-23
167980	AH-2 6-6.5'	soil	2008-07-21	00:00	2008-07-23
167981	AH-2 8-8.5'	soil	2008-07-21	00:00	2008-07-23

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
167982	AH-3 0-1'	soil	2008-07-21	00:00	2008-07-23
167983	AH-3 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167984	AH-3 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167985	AH-3 3-3.5'	soil	2008-07-21	00:00	2008-07-23
167986	AH-4 0-1'	soil	2008-07-21	00:00	2008-07-23
167987	AH-4 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167988	AH-4 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167989	AH-4 4-4.5'	soil	2008-07-21	00:00	2008-07-23
167990	AH-4 6-6.5'	soil	2008-07-21	00:00	2008-07-23
167991	AH-4 8-8.5'	soil	2008-07-21	00:00	2008-07-23
167992	AH-4 10-10.5'	soil	2008-07-21	00:00	2008-07-23
167993	AH-5 0-1'	soil	2008-07-21	00:00	2008-07-23
167994	AH-5 1-1.5'	soil	2008-07-21	00:00	2008-07-23
167995	AH-5 2-2.5'	soil	2008-07-21	00:00	2008-07-23
167996	AH-5 4-4.5'	soil	2008-07-21	00:00	2008-07-23
167997	AH-5 6-6.5'	soil	2008-07-21	00:00	2008-07-23
167998	AH-5 7-7.5'	soil	2008-07-21	00:00	2008-07-23
167999	AH-6 0-1'	soil	2008-07-21	00:00	2008-07-23
168000	AH-6 1-1.5'	soil	2008-07-21	00:00	2008-07-23
168001	AH-6 2-2.5'	soil	2008-07-21	00:00	2008-07-23
168002	AH-6 4-4.5'	soil	2008-07-21	00:00	2008-07-23
168003	AH-6 5.5-6'	soil	2008-07-21	00:00	2008-07-23
168004	AH-7 0-1'	soil	2008-07-21	00:00	2008-07-23
168005	AH-7 1-1.5'	soil	2008-07-21	00:00	2008-07-23
168006	AH-7 2-2.5'	soil	2008-07-21	00:00	2008-07-23
168007	AH-7 3-3.5'	soil	2008-07-21	00:00	2008-07-23
168008	AH-8 0-1'	soil	2008-07-21	00:00	2008-07-23
168009	AH-8 1-1.5'	soil	2008-07-21	00:00	2008-07-23
168010	AH-8 2-2.5'	soil	2008-07-21	00:00	2008-07-23
168011	AH-8 4-4.5'	soil	2008-07-21	00:00	2008-07-23
168012	AH-9 0-1'	soil	2008-07-21	00:00	2008-07-23
168013	AH-9 1-1.5'	soil	2008-07-21	00:00	2008-07-23
168014	AH-9 2-2.5'	soil	2008-07-21	00:00	2008-07-23
168015	AH-9 4-4.5'	soil	2008-07-21	00:00	2008-07-23
168016	AH-9 6-6.5'	soil	2008-07-21	00:00	2008-07-23
168017	AH-9 8-8.5'	soil	2008-07-21	00:00	2008-07-23
168018	AH-9 8.5-9'	soil	2008-07-21	00:00	2008-07-23

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.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project St. Mary - PDU 304 (205 Inj. Well) were received by TraceAnalysis, Inc. on 2008-07-23 and assigned to work order 8072329. Samples for work order 8072329 were received intact at a temperature of 3.4 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8072329 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 167970 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	50804	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		**0.0324**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.807	mg/Kg	1	1.00	81	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.845	mg/Kg	1	1.00	84	48.2 - 155

Sample: 167970 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50881	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43620	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3620**	mg/Kg	50	2.00

Sample: 167970 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**393**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		164	mg/Kg	1	100	164	10 - 250.4

Sample: 167970 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50806	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**2.09**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	1	1.00	101	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	63.8 - 141

Sample: 167971 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50881	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43620	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4740**	mg/Kg	50	2.00

Sample: 167972 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50881	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43620	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6650**	mg/Kg	50	2.00

Sample: 167973 - AH-1 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50881	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43620	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**4860**	mg/Kg	50	2.00

Sample: 167974 - AH-1 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50881	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43620	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**4920**	mg/Kg	50	2.00

Sample: 167975 - AH-1 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50881	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43620	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**229**	mg/Kg	50	2.00

Sample: 167976 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	50804	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100

continued ...

sample 167976 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.849	mg/Kg	1	1.00	85	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.886	mg/Kg	1	1.00	89	48.2 - 155

Sample: 167976 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50881	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43620	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6970**	mg/Kg	50	2.00

Sample: 167976 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		138	mg/Kg	1	100	138	10 - 250.4

Sample: 167976 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50806	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1.27**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.06	mg/Kg	1	1.00	106	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	63.8 - 141

Sample: 167977 - AH-2 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50881	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43620	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**8800**	mg/Kg	50	2.00

Sample: 167978 - AH-2 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**8620**	mg/Kg	50	2.00

Sample: 167979 - AH-2 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2870**	mg/Kg	50	2.00

Sample: 167980 - AH-2 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**3930**		mg/Kg	50	2.00

Sample: 167981 - AH-2 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**1250**		mg/Kg	50	2.00

Sample: 167982 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	50804	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	1	0.0100
Toluene		<0.0100		mg/Kg	1	0.0100
Ethylbenzene		<0.0100		mg/Kg	1	0.0100
Xylene		<0.0100		mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.874	mg/Kg	1	1.00	87	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.918	mg/Kg	1	1.00	92	48.2 - 155

Sample: 167982 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**6680**		mg/Kg	50	2.00

Sample: 167982 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		130	mg/Kg	1	100	130	10 - 250.4

Sample: 167982 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50806	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**1.21**		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.10	mg/Kg	1	1.00	110	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.14	mg/Kg	1	1.00	114	63.8 - 141

Sample: 167983 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**8160**	mg/Kg	50	2.00

Sample: 167984 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**8400**	mg/Kg	50	2.00

Sample: 167985 - AH-3 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**237**	mg/Kg	50	2.00

Sample: 167986 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	50804	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100

continued ...

sample 167986 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.853	mg/Kg	1	1.00	85	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.889	mg/Kg	1	1.00	89	48.2 - 155

Sample: 167986 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5950**	mg/Kg	50	2.00

Sample: 167986 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**242**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		157	mg/Kg	1	100	157	10 - 250.4

Sample: 167986 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50806	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**5.96**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.07	mg/Kg	1	1.00	107	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	63.8 - 141

Sample: 167987 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50882	Date Analyzed:	2008-07-29	Analyzed By:	AR
Prep Batch:	43621	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5230**	mg/Kg	50	2.00

Sample: 167988 - AH-4 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5140**	mg/Kg	50	2.00

Sample: 167989 - AH-4 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5570**	mg/Kg	50	2.00

Sample: 167990 - AH-4 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6080**	mg/Kg	50	2.00

Sample: 167991 - AH-4 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4750**	mg/Kg	50	2.00

Sample: 167992 - AH-4 10-10.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6080**	mg/Kg	50	2.00

Sample: 167993 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	50804	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100

continued ...

sample 167993 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.856	mg/Kg	1	1.00	86	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.886	mg/Kg	1	1.00	89	48.2 - 155

Sample: 167993 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6490**	mg/Kg	50	2.00

Sample: 167993 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		142	mg/Kg	1	100	142	10 - 250.4

Sample: 167993 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50806	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1.94**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	63.8 - 141

Sample: 167994 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5910**	mg/Kg	50	2.00

Sample: 167995 - AH-5 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5060**	mg/Kg	50	2.00

Sample: 167996 - AH-5 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6280**	mg/Kg	50	2.00

Sample: 167997 - AH-5 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50930	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43622	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5540**	mg/Kg	50	2.00

Sample: 167998 - AH-5 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2190**	mg/Kg	50	2.00

Sample: 167999 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6620**	mg/Kg	50	2.00

Sample: 167999 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		153	mg/Kg	1	100	153	10 - 250.4

Sample: 167999 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50806	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1.13**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.09	mg/Kg	1	1.00	109	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.11	mg/Kg	1	1.00	111	63.8 - 141

Sample: 168000 - AH-6 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6060**	mg/Kg	50	2.00

Sample: 168001 - AH-6 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5450**	mg/Kg	50	2.00

Sample: 168002 - AH-6 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4300**	mg/Kg	50	2.00

Sample: 168003 - AH-6 5.5-6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**475**	mg/Kg	50	2.00

Sample: 168004 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5830**	mg/Kg	50	2.00

Sample: 168004 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		166	mg/Kg	1	100	166	10 - 250.4

Sample: 168004 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50853	Date Analyzed:	2008-07-28	Analyzed By:	DC
Prep Batch:	43639	Sample Preparation:	2008-07-28	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.13	mg/Kg	1	1.00	113	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.17	mg/Kg	1	1.00	117	63.8 - 141

Sample: 168005 - AH-7 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3980**	mg/Kg	50	2.00

Sample: 168006 - AH-7 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2390**	mg/Kg	50	2.00

Sample: 168007 - AH-7 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50931	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43623	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**584**		mg/Kg	50	2.00

Sample: 168008 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**5560**		mg/Kg	50	2.00

Sample: 168008 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		142	mg/Kg	1	100	142	10 - 250.4

Sample: 168008 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50806	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	Sample Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1.08**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	63.8 - 141

Sample: 168009 - AH-8 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6240**	mg/Kg	50	2.00

Sample: 168010 - AH-8 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6760**	mg/Kg	50	2.00

Sample: 168011 - AH-8 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2070**	mg/Kg	50	2.00

Sample: 168012 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6280**	mg/Kg	50	2.00

Sample: 168012 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	Sample Preparation:	2008-07-24	Prepared By:	LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		137	mg/Kg	1	100	137	10 - 250.4

Sample: 168012 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	50853	Date Analyzed:	2008-07-28	Analyzed By:	DC
Prep Batch:	43639	Sample Preparation:	2008-07-28	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.12	mg/Kg	1	1.00	112	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.15	mg/Kg	1	1.00	115	63.8 - 141

Sample: 168013 - AH-9 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**7280**	mg/Kg	50	2.00

Sample: 168014 - AH-9 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**6120**	mg/Kg	50	2.00

Sample: 168015 - AH-9 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**4340**	mg/Kg	50	2.00

Sample: 168016 - AH-9 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**4380**	mg/Kg	50	2.00

Sample: 168017 - AH-9 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50932	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43624	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**6790**	mg/Kg	50	2.00

Sample: 168018 - AH-9 8.5-9'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	50933	Date Analyzed:	2008-07-30	Analyzed By:	AR
Prep Batch:	43625	Sample Preparation:	2008-07-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1270**	mg/Kg	50	2.00

Method Blank (1) QC Batch: 50725

QC Batch:	50725	Date Analyzed:	2008-07-24	Analyzed By:	LD
Prep Batch:	43528	QC Preparation:	2008-07-24	Prepared By:	LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		64.5	mg/Kg	1	100	64	30.9 - 146.4

Method Blank (1) QC Batch: 50804

QC Batch:	50804	Date Analyzed:	2008-07-27	Analyzed By:	AG
Prep Batch:	43587	QC Preparation:	2008-07-27	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00580	mg/Kg	0.01

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Toluene		<0.00470	mg/Kg	0.01
Ethylbenzene		<0.00530	mg/Kg	0.01
Xylene		<0.0136	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.873	mg/Kg	1	1.00	87	48.3 - 132.5
4-Bromofluorobenzene (4-BFB)		0.874	mg/Kg	1	1.00	87	37.7 - 128.9

Method Blank (1) QC Batch: 50806

QC Batch: 50806 Date Analyzed: 2008-07-27 Analyzed By: AG
Prep Batch: 43587 QC Preparation: 2008-07-27 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	16.8 - 138.1

Method Blank (1) QC Batch: 50853

QC Batch: 50853 Date Analyzed: 2008-07-28 Analyzed By: DC
Prep Batch: 43639 QC Preparation: 2008-07-28 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		0.849	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.14	mg/Kg	1	1.00	114	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	16.8 - 138.1

Method Blank (1) QC Batch: 50881

QC Batch: 50881 Date Analyzed: 2008-07-29 Analyzed By: AR
Prep Batch: 43620 QC Preparation: 2008-07-28 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 50882

QC Batch: 50882 Date Analyzed: 2008-07-29 Analyzed By: AR
Prep Batch: 43621 QC Preparation: 2008-07-28 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 50930

QC Batch: 50930 Date Analyzed: 2008-07-30 Analyzed By: AR
Prep Batch: 43622 QC Preparation: 2008-07-28 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 50931

QC Batch: 50931 Date Analyzed: 2008-07-30 Analyzed By: AR
Prep Batch: 43623 QC Preparation: 2008-07-28 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 50932

QC Batch: 50932 Date Analyzed: 2008-07-30 Analyzed By: AR
Prep Batch: 43624 QC Preparation: 2008-07-28 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 50933

QC Batch: 50933 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43625 | QC Preparation: 2008-07-28 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch: 50725 | Date Analyzed: 2008-07-24 | Analyzed By: LD
Prep Batch: 43528 | QC Preparation: 2008-07-24 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	169	mg/Kg	1	250	<15.8	68	27.8 - 152.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	165	mg/Kg	1	250	<15.8	66	27.8 - 152.1	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	107	110	mg/Kg	1	100	107	110	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 50804 | Date Analyzed: 2008-07-27 | Analyzed By: AG
Prep Batch: 43587 | QC Preparation: 2008-07-27 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.986	mg/Kg	1	1.00	<0.00580	99	73.3 - 116.6
Toluene	1.01	mg/Kg	1	1.00	<0.00470	101	78.6 - 115.1
Ethylbenzene	1.03	mg/Kg	1	1.00	<0.00530	103	77.4 - 114.9
Xylene	3.08	mg/Kg	1	3.00	<0.0136	103	78.2 - 114.7

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.990	mg/Kg	1	1.00	<0.00580	99	73.3 - 116.6	0	20

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Toluene	1.02	mg/Kg	1	1.00	<0.00470	102	78.6 - 115.1	1	20
Ethylbenzene	1.02	mg/Kg	1	1.00	<0.00530	102	77.4 - 114.9	1	20
Xylene	3.07	mg/Kg	1	3.00	<0.0136	102	78.2 - 114.7	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.841	0.847	mg/Kg	1	1.00	84	85	45 - 124.2
4-Bromofluorobenzene (4-BFB)	0.870	0.876	mg/Kg	1	1.00	87	88	47.2 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 50806 | Date Analyzed: 2008-07-27 | Analyzed By: AG
Prep Batch: 43587 | QC Preparation: 2008-07-27 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.92	mg/Kg	1	10.0	<0.739	89	57.5 - 106.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.21	mg/Kg	1	10.0	<0.739	92	57.5 - 106.4	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.11	1.12	mg/Kg	1	1.00	111	112	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	1.12	1.13	mg/Kg	1	1.00	112	113	53.3 - 123.6

Laboratory Control Spike (LCS-1)

QC Batch: 50853 | Date Analyzed: 2008-07-28 | Analyzed By: DC
Prep Batch: 43639 | QC Preparation: 2008-07-28 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.81	mg/Kg	1	10.0	0.849	80	57.5 - 106.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.27	mg/Kg	1	10.0	0.849	84	57.5 - 106.4	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.12	1.09	mg/Kg	1	1.00	112	109	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	1.12	1.09	mg/Kg	1	1.00	112	109	53.3 - 123.6

Laboratory Control Spike (LCS-1)

QC Batch: 50881 | Date Analyzed: 2008-07-29 | Analyzed By: AR
Prep Batch: 43620 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.8	mg/Kg	1	100	<0.500	99	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 50882 | Date Analyzed: 2008-07-29 | Analyzed By: AR
Prep Batch: 43621 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.9	mg/Kg	1	100	<0.500	99	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.7	mg/Kg	1	100	<0.500	100	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 50930 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43622 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.9	mg/Kg	1	100	<0.500	99	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 50931 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43623 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.5	mg/Kg	1	100	<0.500	98	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 50932 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43624 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	102	mg/Kg	1	100	<0.500	102	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<0.500	101	85 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 50933 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43625 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	102	mg/Kg	1	100	<0.500	102	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 167919

QC Batch: 50725 | Date Analyzed: 2008-07-24 | Analyzed By: LD
Prep Batch: 43528 | QC Preparation: 2008-07-24 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	155	mg/Kg	1	250	44.1	44	18 - 179.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	143	mg/Kg	1	250	44.1	40	18 - 179.5	8	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	144	142	mg/Kg	1	100	144	142	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 167941

QC Batch: 50804 | Date Analyzed: 2008-07-27 | Analyzed By: AG
Prep Batch: 43587 | QC Preparation: 2008-07-27 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.954	mg/Kg	1	1.00	<0.00580	95	62.2 - 134.3
Toluene	0.988	mg/Kg	1	1.00	<0.00470	99	62.6 - 145.4
Ethylbenzene	1.02	mg/Kg	1	1.00	<0.00530	102	64.6 - 146.4
Xylene	3.07	mg/Kg	1	3.00	<0.0136	102	64.3 - 148.8

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

continued ...

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.04	mg/Kg	1	1.00	<0.00580	104	62.2 - 134.3	9	20
Toluene	1.08	mg/Kg	1	1.00	<0.00470	108	62.6 - 145.4	9	20
Ethylbenzene	1.11	mg/Kg	1	1.00	<0.00530	111	64.6 - 146.4	8	20
Xylene	3.34	mg/Kg	1	3.00	<0.0136	111	64.3 - 148.8	8	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.825	0.856	mg/Kg	1	1	82	86	38.8 - 127.5
4-Bromofluorobenzene (4-BFB)	0.895	0.912	mg/Kg	1	1	90	91	49.3 - 142.4

Matrix Spike (MS-1) Spiked Sample: 168008

QC Batch: 50806 | Date Analyzed: 2008-07-27 | Analyzed By: AG
Prep Batch: 43587 | QC Preparation: 2008-07-27 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.95	mg/Kg	1	10.0	1.08	89	10 - 139.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	11.4	mg/Kg	1	10.0	1.08	103	10 - 139.3	14	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.06	1.05	mg/Kg	1	1	106	105	21.3 - 119
4-Bromofluorobenzene (4-BFB)	1.13	1.14	mg/Kg	1	1	113	114	52.5 - 154

Matrix Spike (MS-1) Spiked Sample: 168046

QC Batch: 50853 | Date Analyzed: 2008-07-28 | Analyzed By: DC
Prep Batch: 43639 | QC Preparation: 2008-07-28 | Prepared By: AG

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	10.1	mg/Kg	1	10.0	1.9885	81	10 - 139.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	11.1	mg/Kg	1	10.0	1.9885	91	10 - 139.3	9	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.04	1.06	mg/Kg	1	1	104	106	21.3 - 119
4-Bromofluorobenzene (4-BFB)	1.08	1.08	mg/Kg	1	1	108	108	52.5 - 154

Matrix Spike (MS-1) Spiked Sample: 167977

QC Batch: 50881 | Date Analyzed: 2008-07-29 | Analyzed By: AR
Prep Batch: 43620 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13800	mg/Kg	50	5000	8795	100	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	13800	mg/Kg	50	5000	8795	100	85 - 115	0	20

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

Matrix Spike (MS-1) Spiked Sample: 167987

QC Batch: 50882 | Date Analyzed: 2008-07-29 | Analyzed By: AR
Prep Batch: 43621 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10300	mg/Kg	50	5000	5232	101	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10500	mg/Kg	50	5000	5232	105	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 167997

QC Batch: 50930 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43622 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10800	mg/Kg	50	5000	5538	105	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11200	mg/Kg	50	5000	5538	113	85 - 115	4	20

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

Matrix Spike (MS-1) Spiked Sample: 168007

QC Batch: 50931 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43623 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5680	mg/Kg	50	5000	584	102	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5780	mg/Kg	50	5000	584	104	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 168017

QC Batch: 50932 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43624 | QC Preparation: 2008-07-28 | Prepared By: AR

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12400	mg/Kg	50	5000	6787	112	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12300	mg/Kg	50	5000	6787	110	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 168028

QC Batch: 50933 | Date Analyzed: 2008-07-30 | Analyzed By: AR
Prep Batch: 43625 | QC Preparation: 2008-07-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	6660	mg/Kg	50	5000	1570	102	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	6730	mg/Kg	50	5000	1570	103	85 - 115	1	20

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

Standard (CCV-1)

QC Batch: 50725 | Date Analyzed: 2008-07-24 | Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	287	115	85 - 115	2008-07-24

Standard (CCV-2)

QC Batch: 50725 | Date Analyzed: 2008-07-24 | Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	221	88	85 - 115	2008-07-24

Standard (CCV-3)

QC Batch: 50725 Date Analyzed: 2008-07-24 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	219	88	85 - 115	2008-07-24

Standard (ICV-1)

QC Batch: 50804 Date Analyzed: 2008-07-27 Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.100	100	85 - 115	2008-07-27
Toluene		mg/Kg	0.100	0.103	103	85 - 115	2008-07-27
Ethylbenzene		mg/Kg	0.100	0.104	104	85 - 115	2008-07-27
Xylene		mg/Kg	0.300	0.311	104	85 - 115	2008-07-27

Standard (CCV-1)

QC Batch: 50804 Date Analyzed: 2008-07-27 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0973	97	85 - 115	2008-07-27
Toluene		mg/Kg	0.100	0.0991	99	85 - 115	2008-07-27
Ethylbenzene		mg/Kg	0.100	0.0999	100	85 - 115	2008-07-27
Xylene		mg/Kg	0.300	0.300	100	85 - 115	2008-07-27

Standard (ICV-1)

QC Batch: 50806 Date Analyzed: 2008-07-27 Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.03	103	85 - 115	2008-07-27

Standard (CCV-1)

QC Batch: 50806 Date Analyzed: 2008-07-27 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.11	111	85 - 115	2008-07-27

Standard (ICV-1)

QC Batch: 50853 Date Analyzed: 2008-07-28 Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.14	114	85 - 115	2008-07-28

Standard (CCV-1)

QC Batch: 50853 Date Analyzed: 2008-07-28 Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.14	114	85 - 115	2008-07-28

Standard (ICV-1)

QC Batch: 50881 Date Analyzed: 2008-07-29 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2008-07-29

Standard (CCV-1)

QC Batch: 50881 Date Analyzed: 2008-07-29 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.6	99	85 - 115	2008-07-29

Standard (ICV-1)

QC Batch: 50882 Date Analyzed: 2008-07-29 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.7	100	85 - 115	2008-07-29

Standard (CCV-1)

QC Batch: 50882 Date Analyzed: 2008-07-29 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-07-29

Standard (ICV-1)

QC Batch: 50930 Date Analyzed: 2008-07-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-07-30

Standard (CCV-1)

QC Batch: 50930 Date Analyzed: 2008-07-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	99	85 - 115	2008-07-30

Standard (ICV-1)

QC Batch: 50931 Date Analyzed: 2008-07-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-07-30

Standard (CCV-1)

QC Batch: 50931 Date Analyzed: 2008-07-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2008-07-30

Standard (ICV-1)

QC Batch: 50932 Date Analyzed: 2008-07-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.1	99	85 - 115	2008-07-30

Standard (CCV-1)

QC Batch: 50932 Date Analyzed: 2008-07-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2008-07-30

Standard (ICV-1)

QC Batch: 50933 Date Analyzed: 2008-07-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2008-07-30

Standard (CCV-1)

QC Batch: 50933 Date Analyzed: 2008-07-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.0	99	85 - 115	2008-07-30

WO# 8072329

Analysis Request of Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: St. Mary Land

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3562

PROJECT NAME: St. Mary - PDU 304 (205 Inj. well) Eddy Co. NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
167970	7.21.08		S		X	AH-1 0-1	1				X			X											X				
971			S		X	AH-1 1-1.5	1				X														X				
972			S		X	AH-1 2-2.5	1				X														X				
973			S		X	AH-1 4-4.5	1				X														X				
974			S		X	AH-1 6-6.5	1				X														X				
975			S		X	AH-1 8-8.5	1				X														X				
976			S		X	AH-2 0-1	1				X			X											X				
977			S		X	AH-2 1-1.5	1				X														X				
978			S		X	AH-2 2-2.5	1				X														X				
979			S		X	AH-2 4-4.5	1				X														X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Date: 7.23.08 Time: 2:30

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) J. Jones / R. Taylor Date: Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature) Melanie Batten

DATE: 7-23-08 TIME: 4:40

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: intact 3.4°

REMARKS: If the total TPH is > 5,000 (mg/kg) run deeper horizon, Run (5) BTEX on highest TPH's (AH-1 — AH-9)

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

WO# 80722329

PAGE: 2 OF: 5

Analysis Request of Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: St. Mary Land

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3562

PROJECT NAME: St. Mary - PDU 304 (205 Inj. well) Eddy Co. NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST: BTEX 8021B	TPH 8015 MOD., TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC-MS Vol. 8240/8260/624	GC-MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
167980	7.21.08		S		X	AH-2 6-6.5	1				X													X				
981			S		X	AH-2 8-8.5	1				X													X				
982			S		X	AH-3 0-1	1				X			X										X				
983			S		X	AH-3 1-1.5	1				X													X				
984			S		X	AH-3 2-2.5	1				X													X				
985			S		X	AH-3 3-3.5	1				X													X				
986			S		X	AH-4 0-1	1				X			X										X				
987			S		X	AH-4 1-1.5	1				X													X				
988			S		X	AH-4 2-2.5	1				X													X				
989			S		X	AH-4 4-4.5	1				X													X				

RELINQUISHED BY: (Signature) Date: 7.23.08 Time: 2:30

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) J. Jones / R. Taylor Date: Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature) Melanie Ballew

DATE: 7-23-08 TIME: 14:40

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: intact 3.4°

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

WO# 8072329

PAGE: 3 OF: 5

Analysis Request of Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: St. Mary Land

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3562

PROJECT NAME: St. Mary - PDU 304 (305 Inj. well) Eddy Co. NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. (Ext. to C35) TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
167990	7.21.08		S		X	AH-4 6-6.5	1				X														X				
991			S		X	AH-4 8-8.5	1				X														X				
992			S		X	AH-4 10-10.5	1				X														X				
993			S		X	AH-5 0-1	1				X			X											X				
994			S		X	AH-5 1-1.5	1				X														X				
995			S		X	AH-5 2-2.5	1				X														X				
996			S		X	AH-5 4-4.5	1				X														X				
997			S		X	AH-5 6-6.5	1				X														X				
998			S		X	AH-5 7-7.5	1				X														X				
999			S		X	AH-6 0-1	1				X			X											X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Date: 7.23.08 Time: 7:40

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) J. Jones / R. Taylor Date: Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature) Melanie Batten

DATE: 7-23-08 TIME: 14:40

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: intact 3.4°

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

WO# 80723329

Analysis Request of Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: St. Mary Land

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3562

PROJECT NAME: St. Mary - PDU 304 (205 Inj. well) Eddy Co. NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 608/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
168080	7.21.08		S		X	AH-6 1-1.5	1				X													X				
001			S		X	AH-6 2-2.5	1				X													X				
002			S		X	AH-6 4-4.5	1				X													X				
003			S		X	AH-6 5.5-6	1				X													X				
004			S		X	AH-7 0-1	1				X			X										X				
005			S		X	AH-7 1-1.5	1				X													X				
006			S		X	AH-7 2-2.5	1				X													X				
007			S		X	AH-7 3-3.5	1				X													X				
008			S		X	AH-8 0-1	1				X			X										X				
009			S		X	AH-8 1-1.5	1				X													X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Date: 7-23-08 Time: 2:40

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) J. Jones / R. Taylor Date: Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature) Melanie Patten

DATE: 7-23-08 TIME: 14:40

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: intact 3.4°

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

WO# 80723 29

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 5

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: St. Mary Land

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3562

PROJECT NAME: St. Mary - PDU 304 (205 Inj. well) Eddy Co. NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
168010	7.21.08		S		X	AH-8 2-2.5	1				X													X				
011			S		X	AH-8 4-4.5	1				X													X				
012			S		X	AH-9 0-1	1				X			X										X				
013			S		X	AH-9 1-1.5	1				X													X				
014			S		X	AH-9 2-2.5	1				X													X				
015			S		X	AH-9 4-4.5	1				X													X				
016			S		X	AH-9 6-6.5	1				X													X				
017			S		X	AH-9 8-8.5	1				X													X				
018			S		X	AH-9 8.5-9	1				X													X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: 7.23.08 Time: 2:40	RECEIVED BY: (Signature)	Date: Time:	SAMPLED BY: (Print & Initial) J. Jones / R. Taylor	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:		

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Melanie Ballew
DATE: 7-23-08 TIME: 14:40

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: intact 3.4°

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

Summary Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: September 4, 2008

Work Order: 8082914

Project Location: Eddy County, NM
Project Name: Parkway Delaware #205
Project Number: 3562

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
172285	SB-1 13-15'	soil	2008-08-27	00:00	2008-08-29
172286	SB-1 18-20'	soil	2008-08-27	00:00	2008-08-29
172287	SB-1 23-25'	soil	2008-08-27	00:00	2008-08-29
172288	SB-1 28-30'	soil	2008-08-27	00:00	2008-08-29
172289	SB-2 3-5'	soil	2008-08-27	00:00	2008-08-29
172290	SB-2 8-10'	soil	2008-08-27	00:00	2008-08-29
172291	SB-2 13-15'	soil	2008-08-27	00:00	2008-08-29
172292	SB-2 18-20'	soil	2008-08-27	00:00	2008-08-29
172293	SB-2 23-25'	soil	2008-08-27	00:00	2008-08-29
172294	SB-2 28-30'	soil	2008-08-27	00:00	2008-08-29
172295	SB-3 13-15'	soil	2008-08-27	00:00	2008-08-29
172296	SB-3 18-20'	soil	2008-08-27	00:00	2008-08-29
172297	SB-3 23-25'	soil	2008-08-27	00:00	2008-08-29
172298	SB-3 28-30'	soil	2008-08-27	00:00	2008-08-29
172299	SB-4 8-10'	soil	2008-08-27	00:00	2008-08-29
172300	SB-4 13-15'	soil	2008-08-27	00:00	2008-08-29
172301	SB-4 18-20'	soil	2008-08-27	00:00	2008-08-29
172302	SB-4 23-25'	soil	2008-08-27	00:00	2008-08-29
172303	SB-4 28-30'	soil	2008-08-27	00:00	2008-08-29
172304	SB-4 33-35'	soil	2008-08-27	00:00	2008-08-29
172305	SB-5 8-10'	soil	2008-08-27	00:00	2008-08-29
172306	SB-5 13-15'	soil	2008-08-27	00:00	2008-08-29
172307	SB-5 18-20'	soil	2008-08-27	00:00	2008-08-29
172308	SB-5 23-25'	soil	2008-08-27	00:00	2008-08-29
172309	SB-5 28-30'	soil	2008-08-27	00:00	2008-08-29

Sample: 172285 - SB-1 13-15'

Param	Flag	Result	Units	RL
Chloride		**1320**	mg/Kg	2.00

Sample: 172286 - SB-1 18-20'

Param	Flag	Result	Units	RL
Chloride		**280**	mg/Kg	2.00

Sample: 172287 - SB-1 23-25'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172288 - SB-1 28-30'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172289 - SB-2 3-5'

Param	Flag	Result	Units	RL
Chloride		**5630**	mg/Kg	2.00

Sample: 172290 - SB-2 8-10'

Param	Flag	Result	Units	RL
Chloride		**3160**	mg/Kg	2.00

Sample: 172291 - SB-2 13-15'

Param	Flag	Result	Units	RL
Chloride		**979**	mg/Kg	2.00

Sample: 172292 - SB-2 18-20'

Param	Flag	Result	Units	RL
Chloride		**311**	mg/Kg	2.00

Sample: 172293 - SB-2 23-25'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172294 - SB-2 28-30'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172295 - SB-3 13-15'

Param	Flag	Result	Units	RL
Chloride		**2180**	mg/Kg	2.00

Sample: 172296 - SB-3 18-20'

Param	Flag	Result	Units	RL
Chloride		**1390**	mg/Kg	2.00

Sample: 172297 - SB-3 23-25'

Param	Flag	Result	Units	RL
Chloride		**211**	mg/Kg	2.00

Sample: 172298 - SB-3 28-30'

Param	Flag	Result	Units	RL
Chloride		**121**	mg/Kg	2.00

Sample: 172299 - SB-4 8-10'

Param	Flag	Result	Units	RL
Chloride		**4840**	mg/Kg	2.00

Sample: 172300 - SB-4 13-15'

Param	Flag	Result	Units	RL
Chloride		**748**	mg/Kg	2.00

Sample: 172301 - SB-4 18-20'

Param	Flag	Result	Units	RL
Chloride		**263**	mg/Kg	2.00

Sample: 172302 - SB-4 23-25'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172303 - SB-4 28-30'

Param	Flag	Result	Units	RL
Chloride		**133**	mg/Kg	2.00

Sample: 172304 - SB-4 33-35'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172305 - SB-5 8-10'

Param	Flag	Result	Units	RL
Chloride		**1840**	mg/Kg	2.00

Sample: 172306 - SB-5 13-15'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172307 - SB-5 18-20'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172308 - SB-5 23-25'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 172309 - SB-5 28-30'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: September 4, 2008

Work Order: 8082914

Project Location: Eddy County, NM
Project Name: Parkway Delaware #205
Project Number: 3562

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
172285	SB-1 13-15'	soil	2008-08-27	00:00	2008-08-29
172286	SB-1 18-20'	soil	2008-08-27	00:00	2008-08-29
172287	SB-1 23-25'	soil	2008-08-27	00:00	2008-08-29
172288	SB-1 28-30'	soil	2008-08-27	00:00	2008-08-29
172289	SB-2 3-5'	soil	2008-08-27	00:00	2008-08-29
172290	SB-2 8-10'	soil	2008-08-27	00:00	2008-08-29
172291	SB-2 13-15'	soil	2008-08-27	00:00	2008-08-29
172292	SB-2 18-20'	soil	2008-08-27	00:00	2008-08-29
172293	SB-2 23-25'	soil	2008-08-27	00:00	2008-08-29
172294	SB-2 28-30'	soil	2008-08-27	00:00	2008-08-29

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
172295	SB-3 13-15'	soil	2008-08-27	00:00	2008-08-29
172296	SB-3 18-20'	soil	2008-08-27	00:00	2008-08-29
172297	SB-3 23-25'	soil	2008-08-27	00:00	2008-08-29
172298	SB-3 28-30'	soil	2008-08-27	00:00	2008-08-29
172299	SB-4 8-10'	soil	2008-08-27	00:00	2008-08-29
172300	SB-4 13-15'	soil	2008-08-27	00:00	2008-08-29
172301	SB-4 18-20'	soil	2008-08-27	00:00	2008-08-29
172302	SB-4 23-25'	soil	2008-08-27	00:00	2008-08-29
172303	SB-4 28-30'	soil	2008-08-27	00:00	2008-08-29
172304	SB-4 33-35'	soil	2008-08-27	00:00	2008-08-29
172305	SB-5 8-10'	soil	2008-08-27	00:00	2008-08-29
172306	SB-5 13-15'	soil	2008-08-27	00:00	2008-08-29
172307	SB-5 18-20'	soil	2008-08-27	00:00	2008-08-29
172308	SB-5 23-25'	soil	2008-08-27	00:00	2008-08-29
172309	SB-5 28-30'	soil	2008-08-27	00:00	2008-08-29

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

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Parkway Delaware #205 were received by TraceAnalysis, Inc. on 2008-08-29 and assigned to work order 8082914. Samples for work order 8082914 were received intact at a temperature of 3.1 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Chloride (Titration)	SM 4500-Cl B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8082914 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 172285 - SB-1 13-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1320**	mg/Kg	50	2.00

Sample: 172286 - SB-1 18-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**280**	mg/Kg	50	2.00

Sample: 172287 - SB-1 23-25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172288 - SB-1 28-30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	Sample Preparation:	2008-09-02	Prepared By:	AR

continued ...

sample 172288 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172289 - SB-2 3-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5630**	mg/Kg	50	2.00

Sample: 172290 - SB-2 8-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3160**	mg/Kg	50	2.00

Sample: 172291 - SB-2 13-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**979**	mg/Kg	50	2.00

Sample: 172292 - SB-2 18-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**311**	mg/Kg	50	2.00

Sample: 172293 - SB-2 23-25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172294 - SB-2 28-30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172295 - SB-3 13-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**2180**	mg/Kg	50	2.00

Sample: 172296 - SB-3 18-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1390**	mg/Kg	50	2.00

Sample: 172297 - SB-3 23-25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**211**	mg/Kg	50	2.00

Sample: 172298 - SB-3 28-30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**121**	mg/Kg	50	2.00

Sample: 172299 - SB-4 8-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4840**	mg/Kg	50	2.00

Sample: 172300 - SB-4 13-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**748**	mg/Kg	50	2.00

Sample: 172301 - SB-4 18-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**263**	mg/Kg	50	2.00

Sample: 172302 - SB-4 23-25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172303 - SB-4 28-30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52012	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44559	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**133**	mg/Kg	50	2.00

Sample: 172304 - SB-4 33-35'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52012	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44559	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172305 - SB-5 8-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52012	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44559	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1840**	mg/Kg	50	2.00

Sample: 172306 - SB-5 13-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52012	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44559	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172307 - SB-5 18-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52012	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44559	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172308 - SB-5 23-25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52012	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44559	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 172309 - SB-5 28-30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52012	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44559	Sample Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Method Blank (1) QC Batch: 52010

QC Batch:	52010	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44557	QC Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 52011

QC Batch:	52011	Date Analyzed:	2008-09-03	Analyzed By:	AR
Prep Batch:	44558	QC Preparation:	2008-09-02	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 52012

QC Batch: 52012 | Date Analyzed: 2008-09-03 | Analyzed By: AR
Prep Batch: 44559 | QC Preparation: 2008-09-02 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch: 52010 | Date Analyzed: 2008-09-03 | Analyzed By: AR
Prep Batch: 44557 | QC Preparation: 2008-09-02 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.1	mg/Kg	1	100	<0.500	98	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<0.500	101	85 - 115	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52011 | Date Analyzed: 2008-09-03 | Analyzed By: AR
Prep Batch: 44558 | QC Preparation: 2008-09-02 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	103	mg/Kg	1	100	<0.500	103	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<0.500	101	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52012 | Date Analyzed: 2008-09-03 | Analyzed By: AR
Prep Batch: 44559 | QC Preparation: 2008-09-02 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<0.500	102	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 172292

QC Batch: 52010 | Date Analyzed: 2008-09-03 | Analyzed By: AR
Prep Batch: 44557 | QC Preparation: 2008-09-02 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	4940	mg/Kg	50	5000	311	92	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5000	mg/Kg	50	5000	311	94	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 172302

QC Batch: 52011 | Date Analyzed: 2008-09-03 | Analyzed By: AR
Prep Batch: 44558 | QC Preparation: 2008-09-02 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5060	mg/Kg	50	5000	79	100	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5120	mg/Kg	50	5000	79	101	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 172313

QC Batch: 52012 | Date Analyzed: 2008-09-03 | Analyzed By: AR
Prep Batch: 44559 | QC Preparation: 2008-09-02 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5060	mg/Kg	50	5000	<25.0	101	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5080	mg/Kg	50	5000	<25.0	102	85 - 115	0	20

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

Standard (ICV-1)

QC Batch: 52010 Date Analyzed: 2008-09-03 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	104	104	85 - 115	2008-09-03

Standard (CCV-1)

QC Batch: 52010 Date Analyzed: 2008-09-03 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	95.9	96	85 - 115	2008-09-03

Standard (ICV-1)

QC Batch: 52011 Date Analyzed: 2008-09-03 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.6	98	85 - 115	2008-09-03

Standard (CCV-1)

QC Batch: 52011 Date Analyzed: 2008-09-03 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2008-09-03

Standard (ICV-1)

QC Batch: 52012 | Date Analyzed: 2008-09-03 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.1	99	85 - 115	2008-09-03

Standard (CCV-1)

QC Batch: 52012 | Date Analyzed: 2008-09-03 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2008-09-03

WO# 8082914

Analysis Request of Chain of Custody Record

PAGE: OF: 3

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: St. Marys Exploration

SITE MANAGER: IKe Tavarez

PROJECT NO.: 3562

PROJECT NAME: Parkway Delaware #205, Eddy Co, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
172285	08/27/08		S		✓	SB-1 (13-15')	1					✓												✓				
286	08/27/08		S		✓	SB-1 (18-20')	1					✓												✓				
287	08/27/08		S		✓	SB-1 (23-25')	1					✓												✓				
288	08/27/08		S		✓	SB-1 (28-30')	1					✓												✓				
289	08/27/08		S		✓	SB-2 (3-5')	1					✓												✓				
290	08/27/08		S		✓	SB-2 (8-10')	1					✓												✓				
291	08/27/08		S		✓	SB-2 (13-15')	1					✓												✓				
292	08/27/08		S		✓	SB-2 (18-20')	1					✓												✓				
293	08/27/08		S		✓	SB-2 (23-25')	1					✓												✓				
294	08/27/08		S		✓	SB-2 (28-30')	1					✓												✓				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) — Date: 8/29/08 Time: 10:25 — RECEIVED BY: (Signature) — Date: — Time:

RELINQUISHED BY: (Signature) — Date: — Time: — RECEIVED BY: (Signature) — Date: — Time:

RELINQUISHED BY: (Signature) — Date: — Time: — RECEIVED BY: (Signature) — Date: — Time:

SAMPLED BY: (Print & Initial) Jeffrey Kindley JK — Date: August 28, 2008 Time: 1250

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

RECEIVING LABORATORY: Trace Analysis — RECEIVED BY: (Signature)

ADDRESS: — CITY: Midland STATE: TX ZIP: — CONTACT: — PHONE: — DATE: 8.29.08 TIME: 10:25

TETRA TECH CONTACT PERSON: IKe Tavarez or Jeff Kindley

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.1 c intact

REMARKS: All tests - Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

WO# 8087914

Analysis Request of Chain of Custody Record

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: St Mary's Exploration

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3562

PROJECT NAME: Parkway Delaware #205, Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
172295	08/27/08		S		✓	SB-3 (13-15')	1					✓												✓				
296	08/27/08		S		✓	SB-3 (18-20')	1					✓												✓				
297	08/27/08		S		✓	SB-3 (23-25')	1					✓												✓				
298	08/27/08		S		✓	SB-3 (28-30')	1					✓												✓				
299	08/27/08		S		✓	SB-4 (8-10')	1					✓												✓				
300	08/27/08		S		✓	SB-4 (13-15')	1					✓												✓				
301	08/27/08		S		✓	SB-4 (18-20')	1					✓												✓				
302	08/27/08		S		✓	SB-4 (23-25')	1					✓												✓				
303	08/27/08		S		✓	SB-4 (28-30')	1					✓												✓				
304	08/27/08		S		✓	SB-4 (33-35')	1					✓												✓				

RELINQUISHED BY: (Signature) — Date: 8/29/08 Time: 10:25

RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

SAMPLED BY: (Print & Initial) Jeffrey Kindley — Date: August 25, 2008 Time: 1200

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 8.29.08 TIME: 10:25

TETRA TECH CONTACT PERSON: Ike Tavarez or Jeff Kindley

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.1°C intact

REMARKS: All tests Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

WO# 809294

Analysis Request of Chain of Custody Record

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: St. Mary's Exploration

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3562

PROJECT NAME: Parkway Delaware # 205, Eddy Co, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
172305	08/27/08		S		✓	SB-5 (8-10')	1					✓												✓				
306	08/27/08		S		✓	SB-5 (13-15')	1					✓												✓				
307	08/27/08		S		✓	SB-5 (18-20')	1					✓												✓				
308	08/27/08		S		✓	SB-5 (23-25')	1					✓												✓				
309	08/27/08		S		✓	SB-5 (28-30')	1					✓												✓				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) — Date: 8/29/08 Time: 10:25
RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:

SAMPLED BY: (Print & Initial) Jeffrey Kindly — Date: 8/27/08 Time: 1200

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

TETRA TECH CONTACT PERSON: Ike Tavarez OR Jeff Kindly

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 8.29.08 TIME: 10:25

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.1°C on ice

REMARKS: All tests - Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Summary Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: March 31, 2009

Work Order: 9031724

Project Location: Eddy Co, NM
Project Name: St. Mary/PDU 304 (205 Inj. Well)
Project Number: 3562

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
190478	TMW-1	water	2009-03-16	14:45	2009-03-17

Sample: 190478 - TMW-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		**118**	mg/L as CaCo3	4.00
Total Alkalinity		**118**	mg/L as CaCo3	4.00
Dissolved Calcium		**400**	mg/L	1.00
Chloride		**147**	mg/L	0.500
Hardness (by ICP)		**1610**	mg eq CaCO3/L	0.00
Dissolved Potassium		**8.57**	mg/L	1.00
Dissolved Magnesium		**148**	mg/L	1.00
Dissolved Sodium		**63.0**	mg/L	1.00
pH		**7.86**	s.u.	0.00
Sulfate		**1960**	mg/L	0.500
Total Dissolved Solids		**2690**	mg/L	10.0

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: March 31, 2009

Work Order: 9031724

Project Location: Eddy Co, NM
Project Name: St. Mary/PDU 304 (205 Inj. Well)
Project Number: 3562

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
190478	TMW-1	water	2009-03-16	14:45	2009-03-17

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.

Michael Abel

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project St. Mary/PDU 304 (205 Inj. Well) were received by TraceAnalysis, Inc. on 2009-03-17 and assigned to work order 9031724. Samples for work order 9031724 were received intact at a temperature of 3.7 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Alkalinity	SM 2320B	49376	2009-03-19 at 10:14	57796	2009-03-19 at 16:15
Ca, Dissolved	S 6010B	49435	2009-03-23 at 13:14	57934	2009-03-25 at 08:22
Chloride (IC)	E 300.0	49602	2009-03-30 at 08:39	58113	2009-03-31 at 08:30
Hardness	S 6010B	49435	2009-03-23 at 13:14	57934	2009-03-25 at 08:22
K, Dissolved	S 6010B	49435	2009-03-23 at 13:14	57934	2009-03-25 at 08:22
Mg, Dissolved	S 6010B	49435	2009-03-23 at 13:14	57934	2009-03-25 at 08:22
Na, Dissolved	S 6010B	49435	2009-03-23 at 13:14	57934	2009-03-25 at 08:22
pH	SM 4500-H+	49297	2009-03-17 at 15:30	57707	2009-03-17 at 16:19
SO4 (IC)	E 300.0	49602	2009-03-30 at 08:39	58113	2009-03-31 at 08:30
TDS	SM 2540C	49328	2009-03-18 at 12:09	57885	2009-03-23 at 14:56

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9031724 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 190478 - TMW-1

Laboratory:	Midland				
Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	57796	Date Analyzed:	2009-03-19	Analyzed By:	AR
Prep Batch:	49376	Sample Preparation:	2009-03-19	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**118**		mg/L as CaCo3	1	4.00
Total Alkalinity		**118**		mg/L as CaCo3	1	4.00

Sample: 190478 - TMW-1

Laboratory:	Lubbock				
Analysis:	Ca, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	Sample Preparation:	2009-03-23	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		**400**		mg/L	1	1.00

Sample: 190478 - TMW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58113	Date Analyzed:	2009-03-31	Analyzed By:	AR
Prep Batch:	49602	Sample Preparation:	2009-03-30	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**147**		mg/L	5	0.500

Sample: 190478 - TMW-1

Laboratory:	Lubbock				
Analysis:	Hardness	Analytical Method:	S 6010B	Prep Method:	N/A
QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	Sample Preparation:	2009-03-23	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Hardness (by ICP)		**1610**	mg eq CaCO3/L	1	0.00

Sample: 190478 - TMW-1

Laboratory:	Lubbock				
Analysis:	K, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	Sample Preparation:	2009-03-23	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Potassium		**8.57**	mg/L	1	1.00

Sample: 190478 - TMW-1

Laboratory:	Lubbock				
Analysis:	Mg, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	Sample Preparation:	2009-03-23	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Magnesium		**148**	mg/L	1	1.00

Sample: 190478 - TMW-1

Laboratory:	Lubbock				
Analysis:	Na, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	Sample Preparation:	2009-03-23	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Sodium		**63.0**	mg/L	1	1.00

Sample: 190478 - TMW-1

Laboratory:	Midland				
Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	57707	Date Analyzed:	2009-03-17	Analyzed By:	AR
Prep Batch:	49297	Sample Preparation:	2009-03-17	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
pH		**7.86**	s.u.	1	0.00

Sample: 190478 - TMW-1

Laboratory:	Midland				
Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58113	Date Analyzed:	2009-03-31	Analyzed By:	AR
Prep Batch:	49602	Sample Preparation:	2009-03-30	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		**1960**	mg/L	50	0.500

Sample: 190478 - TMW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	57885	Date Analyzed:	2009-03-23	Analyzed By:	AR
Prep Batch:	49328	Sample Preparation:	2009-03-18	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**2690**	mg/L	2	10.0

Method Blank (1) QC Batch: 57796

QC Batch:	57796	Date Analyzed:	2009-03-19	Analyzed By:	AR
Prep Batch:	49376	QC Preparation:	2009-03-19	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 57885

QC Batch:	57885	Date Analyzed:	2009-03-23	Analyzed By:	AR
Prep Batch:	49328	QC Preparation:	2009-03-18	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.00	mg/L	10

Method Blank (1) QC Batch: 57934

QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	QC Preparation:	2009-03-23	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.117	mg/L	1

Method Blank (1) QC Batch: 57934

QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	QC Preparation:	2009-03-23	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
Dissolved Potassium		<0.172	mg/L	1

Method Blank (1) QC Batch: 57934

QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	QC Preparation:	2009-03-23	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
Dissolved Magnesium		<0.160	mg/L	1

Method Blank (1) QC Batch: 57934

QC Batch:	57934	Date Analyzed:	2009-03-25	Analyzed By:	RR
Prep Batch:	49435	QC Preparation:	2009-03-23	Prepared By:	KV

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL

Parameter	Flag	MDL Result	Units	RL
Dissolved Sodium		<0.0500	mg/L	1

Method Blank (1) QC Batch: 58113

QC Batch: 58113 Date Analyzed: 2009-03-31 Analyzed By: AR
Prep Batch: 49602 QC Preparation: 2009-03-30 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.475	mg/L	0.5

Method Blank (1) QC Batch: 58113

QC Batch: 58113 Date Analyzed: 2009-03-31 Analyzed By: AR
Prep Batch: 49602 QC Preparation: 2009-03-30 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.217	mg/L	0.5

Duplicates (1) Duplicated Sample: 190478

QC Batch: 57707 Date Analyzed: 2009-03-17 Analyzed By: AR
Prep Batch: 49297 QC Preparation: 2009-03-17 Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.90	7.86	s.u.	1	0	1.5

Duplicates (1) Duplicated Sample: 190540

QC Batch: 57796 Date Analyzed: 2009-03-19 Analyzed By: AR
Prep Batch: 49376 QC Preparation: 2009-03-19 Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	181	182	mg/L as CaCo3	1	1	20
Total Alkalinity	181	182	mg/L as CaCo3	1	1	20

Duplicates (1) Duplicated Sample: 190478

QC Batch: 57885 | Date Analyzed: 2009-03-23 | Analyzed By: AR
Prep Batch: 49328 | QC Preparation: 2009-03-18 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	2820	2690	mg/L	2	5	20

Laboratory Control Spike (LCS-1)

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR
Prep Batch: 49435 | QC Preparation: 2009-03-23 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	49.4	mg/L	1	50.0	<0.117	99	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	47.5	mg/L	1	50.0	<0.117	95	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR
Prep Batch: 49435 | QC Preparation: 2009-03-23 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Potassium	45.2	mg/L	1	50.0	<0.172	90	85 - 115

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

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Potassium	43.8	mg/L	1	50.0	<0.172	88	85 - 115	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR
Prep Batch: 49435 | QC Preparation: 2009-03-23 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Magnesium	47.7	mg/L	1	50.0	<0.160	95	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Magnesium	45.9	mg/L	1	50.0	<0.160	92	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR
Prep Batch: 49435 | QC Preparation: 2009-03-23 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium	51.4	mg/L	1	50.0	<0.0500	103	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium	50.5	mg/L	1	50.0	<0.0500	101	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 58113 | Date Analyzed: 2009-03-31 | Analyzed By: AR
Prep Batch: 49602 | QC Preparation: 2009-03-30 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12.5	mg/L	1	12.5	<0.475	100	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12.6	mg/L	1	12.5	<0.475	101	90 - 110	1	

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

Laboratory Control Spike (LCS-1)

QC Batch: 58113 | Date Analyzed: 2009-03-31 | Analyzed By: AR
Prep Batch: 49602 | QC Preparation: 2009-03-30 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	13.4	mg/L	1	12.5	<0.217	107	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	13.4	mg/L	1	12.5	<0.217	107	90 - 110	0	

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

Matrix Spike (MS-1) Spiked Sample: 190255

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR
Prep Batch: 49435 | QC Preparation: 2009-03-23 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	851	mg/L	1	50.0	796	110	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	848	mg/L	1	50.0	796	104	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 190255

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR
Prep Batch: 49435 | QC Preparation: 2009-03-23 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Potassium	64.9	mg/L	1	50.0	19.8	90	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Potassium	64.8	mg/L	1	50.0	19.8	90	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 190255

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR
Prep Batch: 49435 | QC Preparation: 2009-03-23 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Magnesium	189	mg/L	1	50.0	142	94	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Magnesium	189	mg/L	1	50.0	142	94	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 190255

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR
Prep Batch: 49435 | QC Preparation: 2009-03-23 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium	876	mg/L	1	50.0	820	112	75 - 125

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium	882	mg/L	1	50.0	820	124	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 191564

QC Batch: 58113 | Date Analyzed: 2009-03-31 | Analyzed By: AR
Prep Batch: 49602 | QC Preparation: 2009-03-30 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	2880	mg/L	100	1250	1622	101	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	2890	mg/L	100	1250	1622	101	90 - 110	0	

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

Matrix Spike (MS-1) Spiked Sample: 191564

QC Batch: 58113 | Date Analyzed: 2009-03-31 | Analyzed By: AR
Prep Batch: 49602 | QC Preparation: 2009-03-30 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate [1]	3670	mg/L	100	1250	2279	111	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	3660	mg/L	100	1250	2279	110	90 - 110	0	

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

Standard (ICV-1)

QC Batch: 57707 | Date Analyzed: 2009-03-17 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.15	102	98 - 102	2009-03-17

Standard (CCV-1)

QC Batch: 57707 | Date Analyzed: 2009-03-17 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	6.96	99	98 - 102	2009-03-17

[1]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Standard (ICV-1)

QC Batch: 57796 | Date Analyzed: 2009-03-19 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2009-03-19
Carbonate Alkalinity		mg/L as CaCo3	0.00	248		0 - 200	2009-03-19
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	7.00		0 - 200	2009-03-19
Total Alkalinity		mg/L as CaCo3	250	255	102	90 - 110	2009-03-19

Standard (CCV-1)

QC Batch: 57796 | Date Analyzed: 2009-03-19 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2009-03-19
Carbonate Alkalinity		mg/L as CaCo3	0.00	258		0 - 200	2009-03-19
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2009-03-19
Total Alkalinity		mg/L as CaCo3	250	260	104	90 - 110	2009-03-19

Standard (ICV-1)

QC Batch: 57885 | Date Analyzed: 2009-03-23 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1030	103	90 - 110	2009-03-23

Standard (CCV-1)

QC Batch: 57885 | Date Analyzed: 2009-03-23 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	998	100	90 - 110	2009-03-23

Standard (ICV-1)

QC Batch: 57934 | Date Analyzed: 2009-03-25 | Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	52.4	105	90 - 110	2009-03-25

Standard (ICV-1)

QC Batch: 57934 Date Analyzed: 2009-03-25 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Potassium		mg/L	50.0	49.0	98	90 - 110	2009-03-25

Standard (ICV-1)

QC Batch: 57934 Date Analyzed: 2009-03-25 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Magnesium		mg/L	50.0	52.5	105	90 - 110	2009-03-25

Standard (ICV-1)

QC Batch: 57934 Date Analyzed: 2009-03-25 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		mg/L	50.0	48.6	97	90 - 110	2009-03-25

Standard (CCV-1)

QC Batch: 57934 Date Analyzed: 2009-03-25 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	50.5	101	90 - 110	2009-03-25

Standard (CCV-1)

QC Batch: 57934 Date Analyzed: 2009-03-25 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Potassium		mg/L	50.0	47.7	95	90 - 110	2009-03-25

Standard (CCV-1)

QC Batch: 57934 Date Analyzed: 2009-03-25 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Magnesium		mg/L	50.0	48.5	97	90 - 110	2009-03-25

Standard (CCV-1)

QC Batch: 57934 Date Analyzed: 2009-03-25 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		mg/L	50.0	53.3	107	90 - 110	2009-03-25

Standard (ICV-1)

QC Batch: 58113 Date Analyzed: 2009-03-31 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.5	100	90 - 110	2009-03-31

Standard (ICV-1)

QC Batch: 58113 Date Analyzed: 2009-03-31 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	13.8	110	90 - 110	2009-03-31

Standard (CCV-1)

QC Batch: 58113 Date Analyzed: 2009-03-31 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.5	100	90 - 110	2009-03-31

Standard (CCV-1)

QC Batch: 58113 Date Analyzed: 2009-03-31 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	13.3	106	90 - 110	2009-03-31

Analysis Request of Chain of Custody Record

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:	SITE MANAGER:
St. Marys	Ike Tavarez

PROJECT NO.:	PROJECT NAME:
115-640 3562	St. Marys / DPU 304 Eddy Co NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC:MS Vol. 8240/8260/624	GC:MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS					
190478	3/16/2009	1445	W		X	TMW-1	1				i																	X						

RELINQUISHED BY: (Signature)	Date: March 17, 2009 Time: 1440	RECEIVED BY: (Signature)	Date: 3/17/09 Time: 9:40	SAMPLED BY: (Print & Initial) Robert Gabbert Jr	Date: 3-16-09 Time: 15-10
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	TETRA TECH CONTACT PERSON: Ike Tavarez	Results by: RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: Lubbock
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE: DATE: TIME:
RECEIVED BY: (Signature)

SAMPLE CONDITION WHEN RECEIVED:

REMARKS: Alkalinity, Chloride, pH TDS SO4 - Midland Na, Mg, K, Ca, Hardness - Lubbock

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Cation-Anion Balance Sheet

DATE: 3/31/2009

Sample #	Calcium ppm	Magnesium ppm	Sodium ppm	Potassium ppm	Alkalinity ppm	Sulfate ppm	Chloride ppm	Nitrate ppm	Fluoride ppm	Bromide ppm	TDS ppm	EC µMHOs/cm
190478	400	148	63	8.57	118	1960	147				2690	

Sample #	Calcium in meq/L	Magnesium in meq/L	Sodium in meq/L	Potassium in meq/L	Alkalinity in meq/L	Sulfate in meq/L	Chloride in meq/L	Nitrate in meq/L	Fluoride in meq/L	Bromide in meq/L	**Cations in meq/L**	**Anions in meq/L**	**Percentage Error**
190478	19.96	12.18	2.74	0.22	2.36	40.81	4.15	0	0	0	35.10	47.31	29.64452767

	EC/Cation	EC/Anion					TDS/EC	TDS/Cat	TDS/Anion	
190478	3509.86406	4731.407	range	0	to	0	#DIV/0!	0.77	0.57	needs to be 0.55-0.77