



TETRA TECH

MAY 12 2009

April 16, 2009

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

Re: Assessment Report and Closure Request for the St. Mary Land & Exploration Company, ESDU Injection Station, Unit A, Section 24, Township 18 South, Range 31 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. was contacted by St. Mary Land & Exploration Company (St. Mary) to assess a spill from the ESDU Injection Station, located in Unit A, Section 24, Township 18 South, Range 31 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32° 44.214', W 103° 48.923'. 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 16, 2008. Approximately 500 barrels of produced water were released, when lightning struck the facility and burned three 500 barrel fiberglass suction tanks and scorched a 750 barrel gun barrel. Fill lines were broken away from tanks causing the spill. The spill ran west of the tanks onto a Centurion Pipeline right-of-way in an area measuring approximately 30' x 125' and then extended across a corner of the pad and out into the pasture in an area measuring approximately 120' long and varying in width from 25' to 80'. A vacuum truck was utilized to recover 410 barrels of produced water. The initial C-141 is enclosed in Appendix A.

Groundwater

Regional groundwater data from various sources indicate the depth to water in this region to average approximately 300' below ground surface. Copies of the groundwater depth information found for this site is included in Appendix B.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559

Fax 432.682.3946 www.tetratech.com



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 inspected and sampled the spill areas. A total of ten (10) auger holes (AH-1 through AH-10) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. All of the samples analyzed were below the RRAL for both BTEX and TPH. Chloride concentrations were defined in auger holes AH-1, AH-3, AH-4, AH-5, AH-7 and AH-8. AH-6 declined below 1000 mg/kg at 6.0'. In order to better define the subsurface impact at AH-2 a test trench was excavated on October 29, 2008 and showed chloride concentrations declining below 250 mg/kg at 11.0'. One soil boring was installed on October 29, 2008 to define subsurface impacts in the vicinity of AH-9 and AH-10. Chloride concentrations peaked at 6'-7' and declined with depth to below 250 mg/kg at 14'. All sampling results are summarized in Table 1. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The spill area and the auger hole locations are shown on Figure 3.

Soil Remediation

Based upon the recommendations discussed with the NMOCD on February 19, 2009, the areas of impact were excavated to depths ranging from 1.0' to 10.0', as shown on the attached Figure 4.

Closure Request

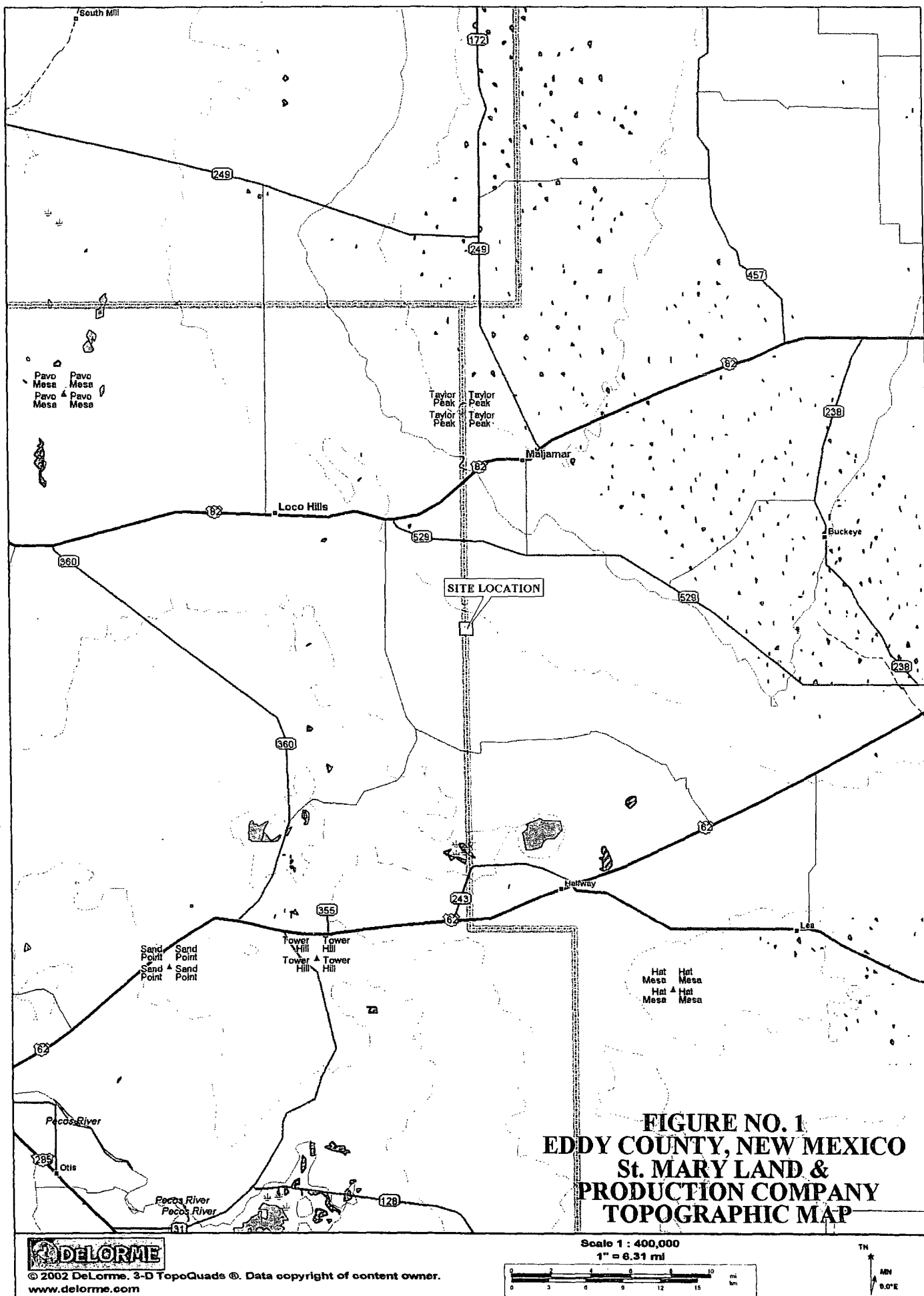
Based upon the remedial work performed and the results of the assessment, St. Mary Land & Exploration Company requests closure of this site. A copy of the Final C-141 is included in Appendix A. If you require any additional information or have any questions or comments concerning this report, please call at (432) 682-4559.

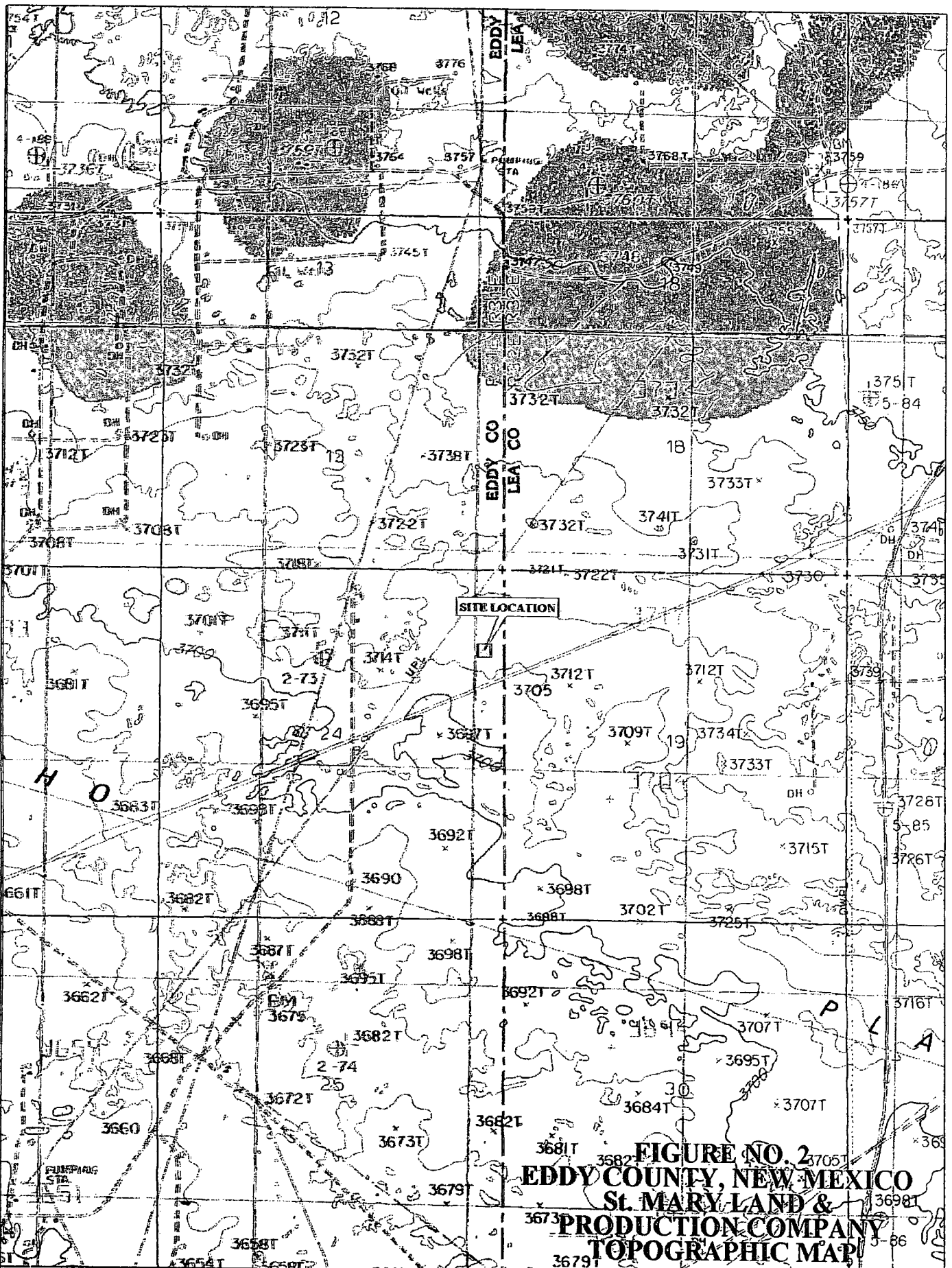
Respectfully submitted,
TETRA TECH, Inc.

Tim Reed, P.G.
Sr. Project Manager

cc: Tom Morrow – St. Mary Land
Don Riggs – St. Mary Land
Jim Amos - BLM

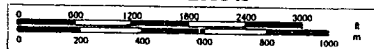
FIGURES



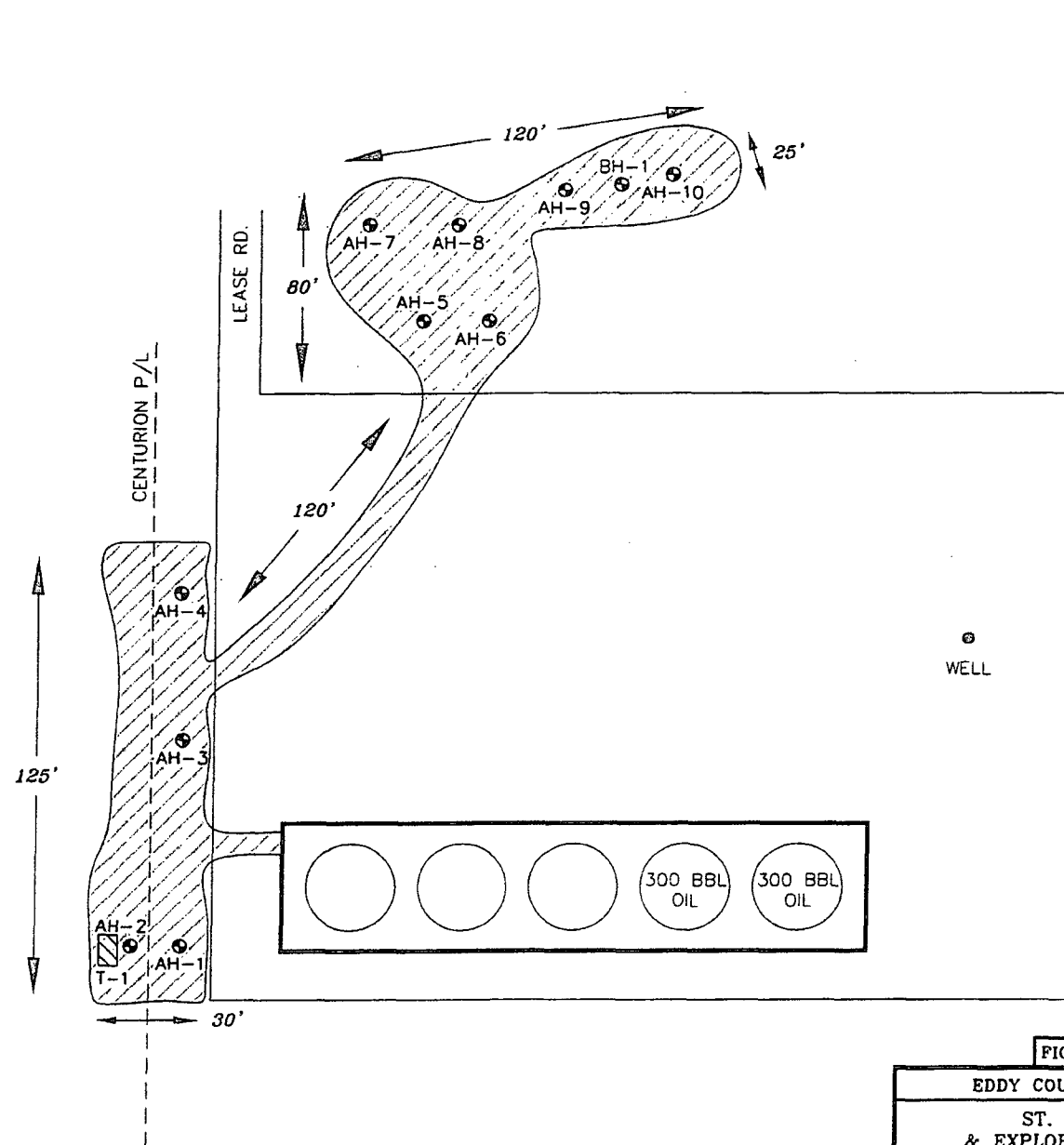


© 2002 Delorme. 3-D TopoQuads ©. Data copyright of content owner.
www.delorme.com

Scale 1 : 24,000
 1" = 2000 ft



-  SPILL AREA
-  BACKHOE TRENCH
-  AUGER HOLES
-  BORE HOLE



NOT TO SCALE

DATE:
8/12/08
DWN. BY:
JJ
FILE:
H:\ST. MARY\3372

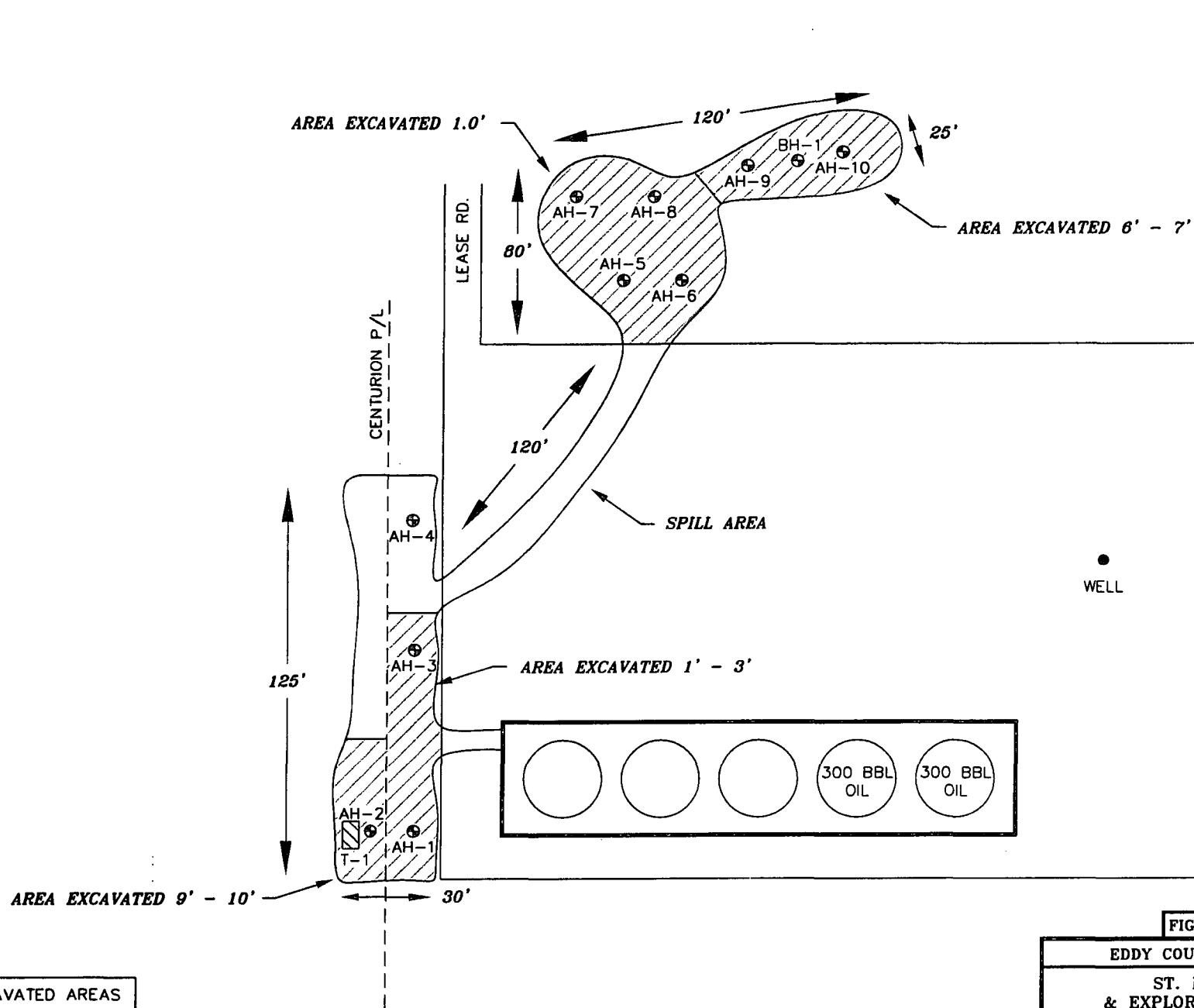
FIGURE NO. 3

EDDY COUNTY, NEW MEXICO

ST. MARY LAND
& EXPLORATION COMPANY

ESDU #20 SWD

TETRA TECH, INC.
MIDLAND, TEXAS



NOT TO SCALE

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

ST. MARY LAND
& EXPLORATION COMPANY

ESDU #20 SWD

TETRA TECH, INC.
MIDLAND, TEXAS

DATE:
4/15/09
OWN. BY:
JJ
FILE:
H:\ST. MARY\3572

TABLES

Table 1
St. Mary Land & Exploration Company
ESDU #20 SWD
Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			DRO	GRO	Total					
AH-1	7/21/2008	0-1	<50.0	1.22	1.22	<0.001	<0.001	<0.001	0.0274	3,460
		2-2.5	-	-	-	-	-	-	-	1,610
		3-3.5	-	-	-	-	-	-	-	4,910
		4-4.5	-	-	-	-	-	-	-	905
		5-5.5	-	-	-	-	-	-	-	<100
AH-2	7/21/2008	0-1	<50.0	<1.0	<50.0	-	-	-	-	3,790
		2-2.5	-	-	-	-	-	-	-	3,190
		3-3.5	-	-	-	-	-	-	-	3,340
		4-4.5	-	-	-	-	-	-	-	3,360
		5-5.5	-	-	-	-	-	-	-	2,920
		6-6.5	-	-	-	-	-	-	-	8,360
		7-7.5	-	-	-	-	-	-	-	16,900
T-1 (AH-2)	10/29/2008	0-1	-	-	-	-	-	-	-	<100
		3.0	-	-	-	-	-	-	-	328
		5.0	-	-	-	-	-	-	-	3,540
		7.0	-	-	-	-	-	-	-	13,100
		9.0	-	-	-	-	-	-	-	11,700
		11.0	-	-	-	-	-	-	-	182
AH-3	7/21/2008	0-1	<50.0	<1.0	<50.0	-	-	-	-	3,030
		2-2.5	-	-	-	-	-	-	-	1,420
		3-3.5	-	-	-	-	-	-	-	<100
		4-4.5	-	-	-	-	-	-	-	<100

(-) Not Analyzed

Table 1
St. Mary Land & Exploration Company
ESDU #20 SWD
Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			DRO	GRO	Total					
AH-4	7/31/2008	0-1	<50.0	<1.0	<50.0	<0.001	<0.001	<0.001	<0.001	850
		2-2.5	-	-	-	-	-	-	-	<100
		3-3.5	-	-	-	-	-	-	-	270
		4-4.5	-	-	-	-	-	-	-	<100
AH-5	7/31/2008	0-1	<50.0	<1.0	<50.0	<0.001	<0.001	<0.001	<0.001	1,930
		2-2.5	-	-	-	-	-	-	-	122
		3-3.5	-	-	-	-	-	-	-	<100
AH-6	7/31/2008	0-1	<50.0	<1.0	<50.0	-	-	-	-	3,680
		2-2.5	-	-	-	-	-	-	-	2,800
		3-3.5	-	-	-	-	-	-	-	829
		4-4.5	-	-	-	-	-	-	-	4,290
		5-5.5	-	-	-	-	-	-	-	1,020
		6-6.5	-	-	-	-	-	-	-	584
		7-7.5	-	-	-	-	-	-	-	543
AH-7	7/31/2008	0-1	<50.0	<1.0	<50.0	-	-	-	-	2,510
		2-2.5	-	-	-	-	-	-	-	108
		3-3.5	-	-	-	-	-	-	-	<100
			-	-	-	-	-	-	-	

(-) Not Analyzed

Table 1
St. Mary Land & Exploration Company
ESDU #20 SWD
Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			DRO	GRO	Total					
AH-8	7/31/2008	0-1	<50.0	<1.0	<50.0	<0.001	<0.001	<0.001	<0.001	3,090
		2-2.5	-	-	-	-	-	-	-	<100
		3-3.5	-	-	-	-	-	-	-	224
		5-5.5	-	-	-	-	-	-	-	<100
AH-9	7/31/2008	0-1	<50.0	<1.0	<50.0	-	-	-	-	556
		2-2.5	-	-	-	-	-	-	-	143
		3-3.5	-	-	-	-	-	-	-	1,250
		3.5-4.0	-	-	-	-	-	-	-	5,930
AH-10	7/31/2008	0-1	<50.0	<1.0	<50.0	<0.001	<0.001	<0.001	<0.001	648
		2-2.5	-	-	-	-	-	-	-	1,360
		3-3.5	-	-	-	-	-	-	-	12,600
BH-1 (AH-9 & AH-10)	10/29/2008	0-1	-	-	-	-	-	-	-	245
		2-3	-	-	-	-	-	-	-	235
		4-5	-	-	-	-	-	-	-	8,990
		6-7	-	-	-	-	-	-	-	9,360
		8-9	-	-	-	-	-	-	-	5,410
		10-11	-	-	-	-	-	-	-	3,260
		12-13	-	-	-	-	-	-	-	417
		14-15	-	-	-	-	-	-	-	<100

(-) Not Analyzed

APPENDIX A
NMOCD FORM C-141

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

Form C-141
Revised October 10, 2003

JUL 18 2008
OCD-ARTESIA

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

Release Notification and Corrective Action

i SEB0821852969

N SEB0821852642

154903

OPERATOR

X Initial Report ☐ Final Report

Name of Company	St. Mary Land & Exploration Co.	Contact	Tom Morrow
Address	3300 N. A St. Bldg 7, Suite 200, Midland, TX 79705	Telephone No.	432-688-1773
Facility Name	ESDU Injection Station	Facility Type	Injection Station

Surface Owner	Bureau of Land Management	Mineral Owner	Bureau of Land Management	Lease No.
---------------	---------------------------	---------------	---------------------------	-----------

30 015 31350

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	24	18S	31E					

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Produced Wtr.	Volume of Release	500 bbls	Volume Recovered	410 bbls
Source of Release	Fire destroyed water tanks & gun barrel	Date and Hour of Occurrence	7/16/08 6:00 AM	Date and Hour of Discovery	7/16/08 6:00AM
Was Immediate Notice Given?	X Yes ☐ No ☐ Not Required	If YES, To Whom?	Jim Amos w/ BLM & Mike Bratcher w/NMOCD		
By Whom?	Bill Hearn	Date and Hour	5/30/08 10:01AM		
Was a Watercourse Reached?	☐ Yes X No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

CAUSE: Lightning struck injection station burning down (3) 500 bbl fiberglass suction tanks and scorching 750 bbl fiberglass gun barrel. Fill lines were broken away from tanks causing spill.

REMEDIAL ACTION: Notified all oil companies and shut-in all off lease water entering facility.

Describe Area Affected and Cleanup Action Taken.*

AFFECTED AREA: 85' X 45' = 3825 sq. ft. & 100' X 95' = 9500 sq. ft. Total = 13325 sq. ft. (Pasture Land)

CLEANUP ACTION: Picked up standing fluid w/vacuum truck. Waiting for orders from BLM/OCD for further cleanup remediation action.

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.

OIL CONSERVATION DIVISION

Signature:

Donna Huddleston

Printed Name: Donna Huddleston

Approved by District Supervisor: *TGum by SB*

Title: Production Tech

Approval Date: *8-5-08*

Expiration Date:

E-mail Address: dhuddleston@stmaryland.com

Conditions of Approval:

Date: 07/17/2008

Phone: 432-688-1789

Attached ☒

2RP-208

* Attach Additional Sheets If Necessary

SEB 0821853045

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

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

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	St Mary Land & Exploration Co.	Contact	Tom Morrow
Address	3300 N. A Street, Bldg. 7, Ste. 200, Midland, TX 79705	Telephone No.	432-688-1773
Facility Name	ESDU Injection Station	Facility Type	Injection Station

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

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	24	18S	31E					Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	500 bbls	Volume Recovered	410 bbls
Source of Release	Fire destroyed water tanks & gun barrel	Date and Hour of Occurrence	7/16/08 6:00 AM	Date and Hour of Discovery	7/16/08 6:00 AM
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher w/NMOCD & Jim Amos w/BLM		
By Whom?	Bill Heame	Date and Hour	5/30/2008 10:01 AM		
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: Lightning struck injection station burning down (3) 500-bbl fiberglass suction tanks and scorching a 750 bbl fiberglass gun barrel. Fill lines were broken away from tanks causing the spill.

Remedial Action: Notified all oil companies and shut-in all off lease water entering facility.

Describe Area Affected and Cleanup Action Taken.*

Affected Area: 85' x 45' = 3825 sq. ft. & 100' x 95' = 9500 sq. ft. Total = 13,325 sq. ft. (Pasture Land)

Cleanup Action: Picked up standing fluid w/vacuum truck. Waiting on orders from BLM/OCD for further cleanup remediation action.

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	<u>Dorina Huddleston</u>		
Printed Name:	Dorina Huddleston		
Title:	Production Tech		
E-mail Address:	dhuddleston@stmaryland.com		
Date:	3/27/2009	Phone:	432-688-1789
		OIL CONSERVATION DIVISION	
		Approved by District Supervisor:	
		Approval Date:	Expiration Date:
		Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary

APPENDIX B

GROUNDWATER DATA

Water Well Data
Average Depth to Groundwater (ft)
St. Mary Land & Exploration company
ESDU #20 SWD

17 South 30 East

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

17 South 31 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 32 East

6	5	4	82	3	2	60	1	225
7	8	9		10		11	70	12
18	17	16		15		14	88	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
	8	9	10	11	12
18	17	16	15	14	13
	20	21	22	23	24
30	29	28	27	26	25
	32	33	34	35	36

18 South 31 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 32 East

6	5	4	65	3	2		1	
7	460	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		

19 South 30 East

	5	4	3	2	1
	8	9	10	11	12
	17	16	15	14	13
	20	21	22	23	24
	29	28	27	26	25
90	32	33	34	35	36

19 South 31 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	101	34	35
					130

19 South 32 East

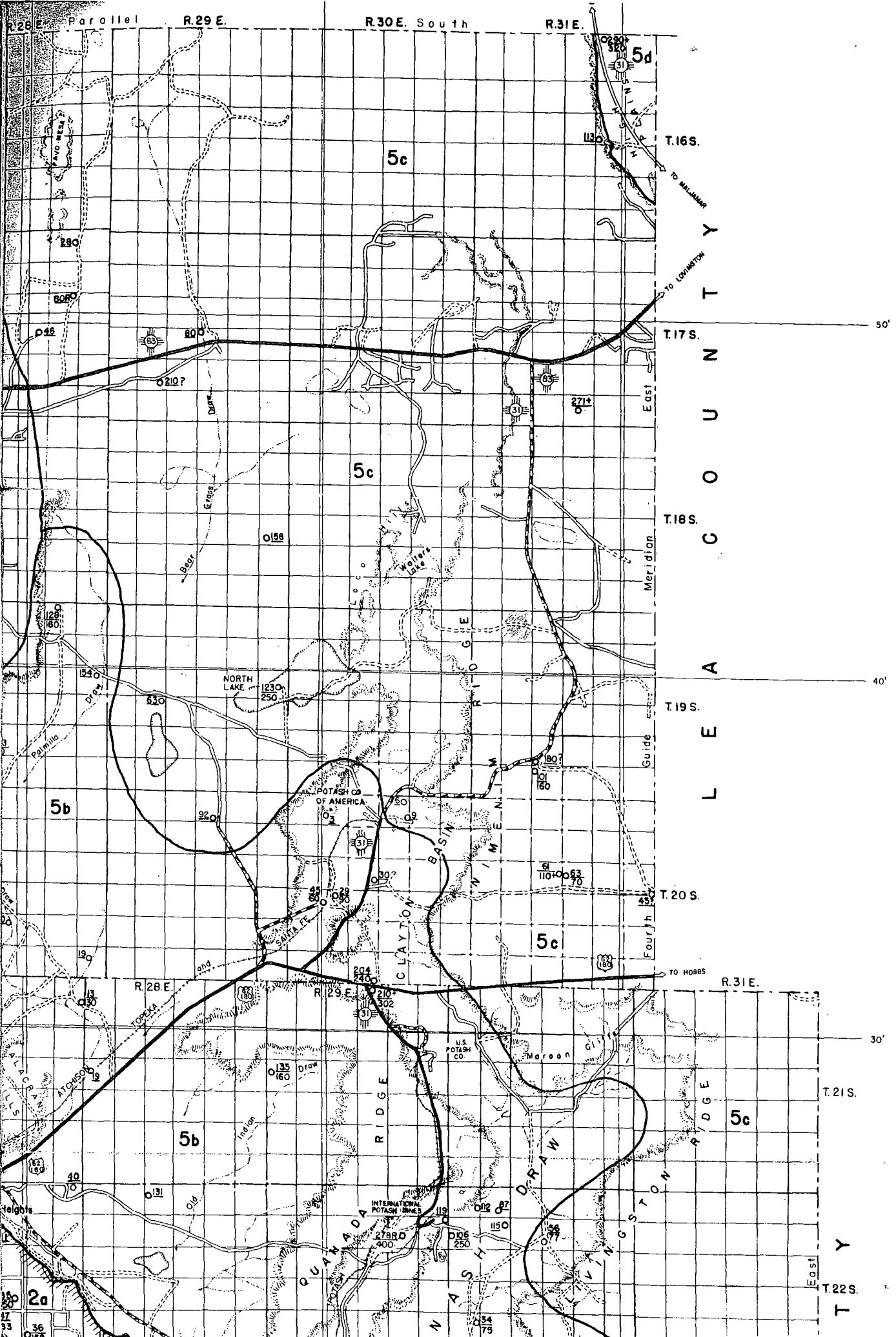
6	5	4		3	2		1	
7		8	9	10	11	12		
18		17	16	15	14	13		
19		20	21	22	23	24		
30		29	28	27	26	25		
31		32	33	34	35	36		

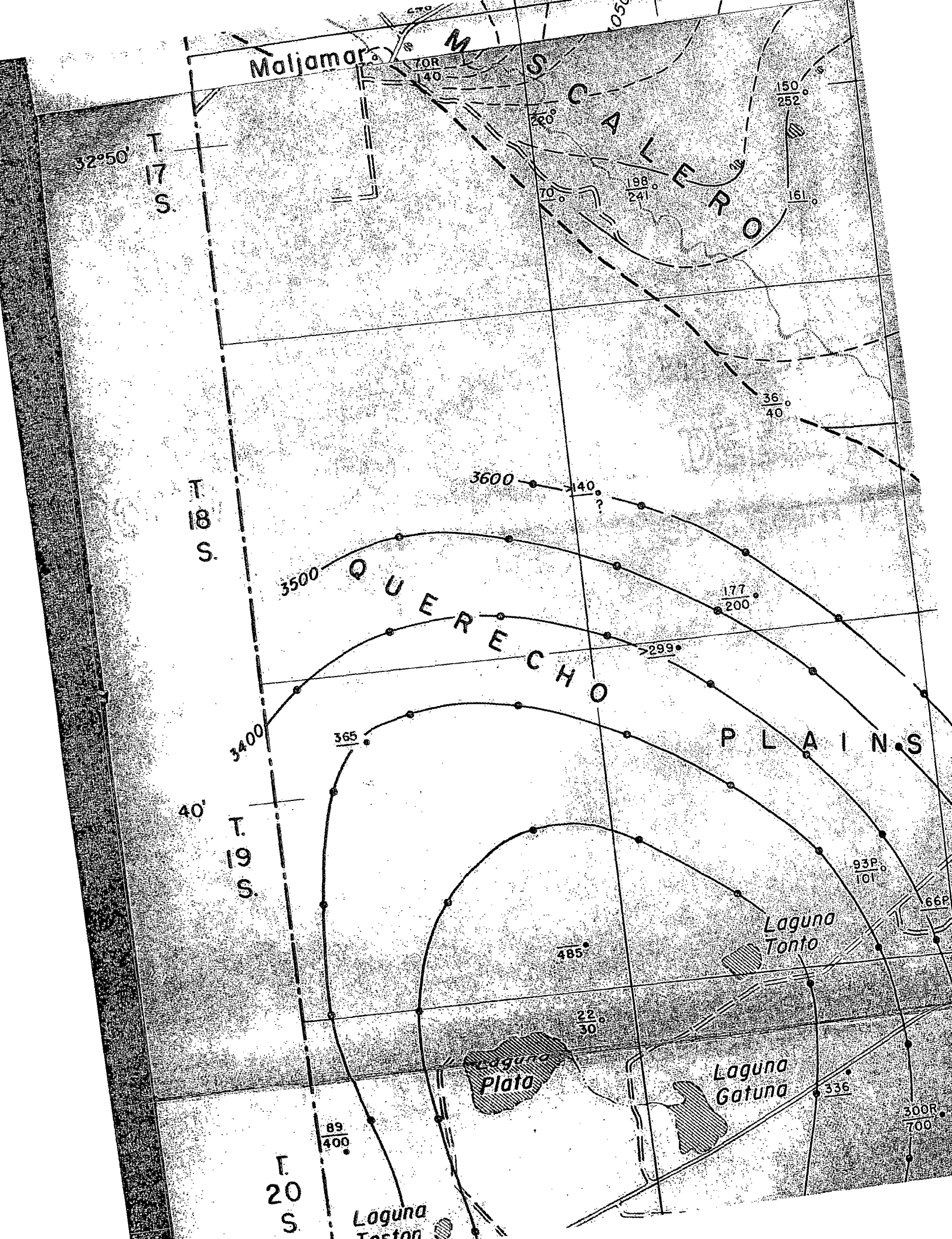
18 New Mexico State Engineers Well Reports

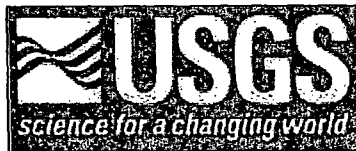
105 USGS Well Reports

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







USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

Ground Water

New Mexico

GO

News: [Recent changes](#)

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

Agency code = usgs

site_no list = • 324519103474501

Minimum number of levels = 1

[Save file of selected sites to local disk for future upload](#)

USGS 324519103474501 18S.32E.07.44233

Lea County, New Mexico

Latitude 32°45'24",

Longitude 103°47'55" NAD27

Land-surface elevation

3,759.00 feet above sea level

NGVD29

This well is completed in the

ALLUVIUM, BOLSON

DEPOSITS AND OTHER

SURFACE DEPOSITS

(110AVMB) local aquifer.

Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

	Water level,	
--	--------------	--

Date	Time	feet below land surface	Status
1976-05-26		80.80	
1981-03-12		82.19	
1986-03-25		81.50	
1991-05-14		82.47	
1996-01-30		82.35	

[Questions about sites/data?](#)
[Feedback on this web site](#)

[Top](#)
[Explanation of terms](#)
[Subscribe to NWISWeb
notifications](#)

[Automated retrievals](#)

[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological
Survey](#)



Title: Ground water for New Mexico: Water Levels

URL: <http://waterdata.usgs.gov/nm/nwis/gwlevels?>

Page Contact Information: [New Mexico NWISWeb Maintainer](#)

Page Last Modified: 2008-12-09 17:59:34 EST

1.3 1.3 nadww01



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

Ground Water

New Mexico

GO

News: [Recent changes](#)

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

Agency code = usgs

site_no list = • 324458103454301

Minimum number of levels = 1

[Save file of selected sites to local disk for future upload](#)

USGS 324458103454301 18S.32E.16.22433

Lea County, New Mexico

Latitude 32°45'05",

Longitude 103°45'51" NAD27

Land-surface elevation

3,796.00 feet above sea level
NGVD29

The depth of the well is 100
feet below land surface.

This well is completed in the
ALLUVIUM, BOLSON
DEPOSITS AND OTHER
SURFACE DEPOSITS
(110AVMB) local aquifer.

Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

Date	Time	Water level, feet below land surface	Status
1968-03-18		84.18	

[Questions about sites/data?](#)
[Feedback on this web site](#)

[Top](#)
[Explanation of terms](#)
[Subscribe to NWISWeb
notifications](#)

[Automated retrievals](#)

[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological
Survey](#)



Title: Ground water for New Mexico: Water Levels

URL: <http://waterdata.usgs.gov/nm/nwis/gwlevels?>

Page Contact Information: [New Mexico NWISWeb Maintainer](#)

Page Last Modified: 2008-12-09 18:07:32 EST

1.32 1.31 nadww01

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 18S Range: 32E Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: 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

AVERAGE DEPTH OF WATER REPORT 12/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
CP	18S	32E	04				1	65	65	65
CP	18S	32E	07				1	460	460	460

Record Count: 2

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 19S Range: 32E Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: 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

AVERAGE DEPTH OF WATER REPORT 12/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
CP	19S	32E	19				1	102	102	102
CP	19S	32E	20				1	345	345	345

Record Count: 2

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 19S Range: 31E Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: 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

AVERAGE DEPTH OF WATER REPORT 12/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
CP	19S	31E	36				1	130	130	130

Record Count: 1

APPENDIX C
SUMMARY REPORT
August 7, 2008

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 1 of 8
Eddy Co, NM

Summary Report

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

Report Date: August 7, 2008

Work Order: 8080408



Project Location: Eddy Co, NM
Project Name: St. Mary's/ESDU #20 SWD
Project Number: 115-6403572

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
169367	AH-1 (0-1')	soil	2008-07-31	00:00	2008-08-04
169368	AH-1 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169369	AH-1 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169370	AH-1 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169371	AH-1 (5-5.5')	soil	2008-07-31	00:00	2008-08-04
169372	AH-2 (0-1')	soil	2008-07-31	00:00	2008-08-04
169373	AH-2 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169374	AH-2 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169375	AH-2 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169376	AH-2 (5-5.5')	soil	2008-07-31	00:00	2008-08-04
169377	AH-2 (6-6.5')	soil	2008-07-31	00:00	2008-08-04
169378	AH-2 (7-7.5')	soil	2008-07-31	00:00	2008-08-04
169379	AH-3 (0-1')	soil	2008-07-31	00:00	2008-08-04
169380	AH-3 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169381	AH-3 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169382	AH-3 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169383	AH-4 (0-1')	soil	2008-07-31	00:00	2008-08-04
169384	AH-4 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169385	AH-4 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169386	AH-4 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169387	AH-5 (0-1')	soil	2008-07-31	00:00	2008-08-04
169388	AH-5 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169389	AH-5 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169390	AH-6 (0-1')	soil	2008-07-31	00:00	2008-08-04
169391	AH-6 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169392	AH-6 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169393	AH-6 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169394	AH-6 (5-5.5')	soil	2008-07-31	00:00	2008-08-04
169395	AH-6 (6-6.5')	soil	2008-07-31	00:00	2008-08-04
169396	AH-6 (7-7.5')	soil	2008-07-31	00:00	2008-08-04

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

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
169397	AH-7 (0-1')	soil	2008-07-31	00:00	2008-08-04
169398	AH-7 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169399	AH-7 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169400	AH-8 (0-1')	soil	2008-07-31	00:00	2008-08-04
169401	AH-8 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169402	AH-8 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169403	AH-8 (5-5.5')	soil	2008-07-31	00:00	2008-08-04
169404	AH-9 (0-1')	soil	2008-07-31	00:00	2008-08-04
169405	AH-9 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169406	AH-9 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169407	AH-9 (3.5-4.0')	soil	2008-07-31	00:00	2008-08-04
169408	AH-10 (0-1')	soil	2008-07-31	00:00	2008-08-04
169409	AH-10 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169410	AH-10 (3-3.5')	soil	2008-07-31	00:00	2008-08-04

Sample - Field Code	BTX				TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
169367 - AH-1 (0-1')	<0.0100	<0.0100	<0.0100	0.0274	<50.0	1.22
169372 - AH-2 (0-1')					<50.0	<1.00
169379 - AH-3 (0-1')					<50.0	<1.00
169383 - AH-4 (0-1')	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
169387 - AH-5 (0-1')	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
169390 - AH-6 (0-1')					<50.0	<1.00
169397 - AH-7 (0-1')					<50.0	<1.00
169400 - AH-8 (0-1')	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
169404 - AH-9 (0-1')					<50.0	<1.00
169408 - AH-10 (0-1')	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00

Sample: 169367 - AH-1 (0-1')

Param	Flag	Result	Units	RL
Chloride		3460	mg/Kg	2.00

Sample: 169368 - AH-1 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		1610	mg/Kg	2.00

Sample: 169369 - AH-1 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		4910	mg/Kg	2.00

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 3 of 8
Eddy Co, NM

Sample: 169370 - AH-1 (4-4.5')

Param	Flag	Result	Units	RL
Chloride		905	mg/Kg	2.00

Sample: 169371 - AH-1 (5-5.5')

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

Sample: 169372 - AH-2 (0-1')

Param	Flag	Result	Units	RL
Chloride		3790	mg/Kg	2.00

Sample: 169373 - AH-2 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		3190	mg/Kg	2.00

Sample: 169374 - AH-2 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		3340	mg/Kg	2.00

Sample: 169375 - AH-2 (4-4.5')

Param	Flag	Result	Units	RL
Chloride		3360	mg/Kg	2.00

Sample: 169376 - AH-2 (5-5.5')

Param	Flag	Result	Units	RL
Chloride		2920	mg/Kg	2.00

Sample: 169377 - AH-2 (6-6.5')

Param	Flag	Result	Units	RL
Chloride		8360	mg/Kg	2.00

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 4 of 8
Eddy Co, NM

Sample: 169378 - AH-2 (7-7.5')

Param	Flag	Result	Units	RL
Chloride		16900	mg/Kg	2.00

Sample: 169379 - AH-3 (0-1')

Param	Flag	Result	Units	RL
Chloride		3030	mg/Kg	2.00

Sample: 169380 - AH-3 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		1420	mg/Kg	2.00

Sample: 169381 - AH-3 (3-3.5')

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

Sample: 169382 - AH-3 (4-4.5')

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

Sample: 169383 - AH-4 (0-1')

Param	Flag	Result	Units	RL
Chloride		850	mg/Kg	2.00

Sample: 169384 - AH-4 (2-2.5')

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

Sample: 169385 - AH-4 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		270	mg/Kg	2.00

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 5 of 8
Eddy Co, NM

Sample: 169386 - AH-4 (4-4.5')

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

Sample: 169387 - AH-5 (0-1')

Param	Flag	Result	Units	RL
Chloride		1930	mg/Kg	2.00

Sample: 169388 - AH-5 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		122	mg/Kg	2.00

Sample: 169389 - AH-5 (3-3.5')

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

Sample: 169390 - AH-6 (0-1')

Param	Flag	Result	Units	RL
Chloride		3680	mg/Kg	2.00

Sample: 169391 - AH-6 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		2800	mg/Kg	2.00

Sample: 169392 - AH-6 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		829	mg/Kg	2.00

Sample: 169393 - AH-6 (4-4.5')

Param	Flag	Result	Units	RL
Chloride		4290	mg/Kg	2.00

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 6 of 8
Eddy Co, NM

Sample: 169394 - AH-6 (5-5.5')

Param	Flag	Result	Units	RL
Chloride		1020	mg/Kg	2.00

Sample: 169395 - AH-6 (6-6.5')

Param	Flag	Result	Units	RL
Chloride		584	mg/Kg	2.00

Sample: 169396 - AH-6 (7-7.5')

Param	Flag	Result	Units	RL
Chloride		543	mg/Kg	2.00

Sample: 169397 - AH-7 (0-1')

Param	Flag	Result	Units	RL
Chloride		2510	mg/Kg	2.00

Sample: 169398 - AH-7 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		108	mg/Kg	2.00

Sample: 169399 - AH-7 (3-3.5')

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

Sample: 169400 - AH-8 (0-1')

Param	Flag	Result	Units	RL
Chloride		3090	mg/Kg	2.00

Sample: 169401 - AH-8 (2-2.5')

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

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 7 of 8
Eddy Co, NM

Sample: 169402 - AH-8 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		224	mg/Kg	2.00

Sample: 169403 - AH-8 (5-5.5')

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

Sample: 169404 - AH-9 (0-1')

Param	Flag	Result	Units	RL
Chloride		556	mg/Kg	2.00

Sample: 169405 - AH-9 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		143	mg/Kg	2.00

Sample: 169406 - AH-9 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		1250	mg/Kg	2.00

Sample: 169407 - AH-9 (3.5-4.0')

Param	Flag	Result	Units	RL
Chloride		5930	mg/Kg	2.00

Sample: 169408 - AH-10 (0-1')

Param	Flag	Result	Units	RL
Chloride		648	mg/Kg	2.00

Sample: 169409 - AH-10 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		1360	mg/Kg	2.00

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 8 of 8
Eddy Co, NM

Sample: 169410 - AH-10 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		12600	mg/Kg	2.00



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

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: August 7, 2008

Work Order: 8080408



Project Location: Eddy Co, NM
Project Name: St. Mary's/ESDU #20 SWD
Project Number: 115-6403572

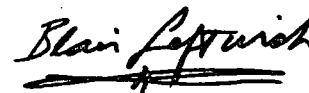
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
169367	AH-1 (0-1')	soil	2008-07-31	00:00	2008-08-04
169368	AH-1 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169369	AH-1 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169370	AH-1 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169371	AH-1 (5-5.5')	soil	2008-07-31	00:00	2008-08-04
169372	AH-2 (0-1')	soil	2008-07-31	00:00	2008-08-04
169373	AH-2 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169374	AH-2 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169375	AH-2 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169376	AH-2 (5-5.5')	soil	2008-07-31	00:00	2008-08-04

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
169377	AH-2 (6-6.5')	soil	2008-07-31	00:00	2008-08-04
169378	AH-2 (7-7.5')	soil	2008-07-31	00:00	2008-08-04
169379	AH-3 (0-1')	soil	2008-07-31	00:00	2008-08-04
169380	AH-3 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169381	AH-3 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169382	AH-3 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169383	AH-4 (0-1')	soil	2008-07-31	00:00	2008-08-04
169384	AH-4 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169385	AH-4 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169386	AH-4 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169387	AH-5 (0-1')	soil	2008-07-31	00:00	2008-08-04
169388	AH-5 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169389	AH-5 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169390	AH-6 (0-1')	soil	2008-07-31	00:00	2008-08-04
169391	AH-6 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169392	AH-6 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169393	AH-6 (4-4.5')	soil	2008-07-31	00:00	2008-08-04
169394	AH-6 (5-5.5')	soil	2008-07-31	00:00	2008-08-04
169395	AH-6 (6-6.5')	soil	2008-07-31	00:00	2008-08-04
169396	AH-6 (7-7.5')	soil	2008-07-31	00:00	2008-08-04
169397	AH-7 (0-1')	soil	2008-07-31	00:00	2008-08-04
169398	AH-7 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169399	AH-7 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169400	AH-8 (0-1')	soil	2008-07-31	00:00	2008-08-04
169401	AH-8 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169402	AH-8 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169403	AH-8 (5-5.5')	soil	2008-07-31	00:00	2008-08-04
169404	AH-9 (0-1')	soil	2008-07-31	00:00	2008-08-04
169405	AH-9 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169406	AH-9 (3-3.5')	soil	2008-07-31	00:00	2008-08-04
169407	AH-9 (3.5-4.0')	soil	2008-07-31	00:00	2008-08-04
169408	AH-10 (0-1')	soil	2008-07-31	00:00	2008-08-04
169409	AH-10 (2-2.5')	soil	2008-07-31	00:00	2008-08-04
169410	AH-10 (3-3.5')	soil	2008-07-31	00:00	2008-08-04

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

This report consists of a total of 38 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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's/ESDU #20 SWD were received by TraceAnalysis, Inc. on 2008-08-04 and assigned to work order 8080408. Samples for work order 8080408 were received intact at a temperature of 3.5 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 8080408 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.

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 5 of 38
Eddy Co, NM

Analytical Report

Sample: 169367 - AH-1 (0-1')

Laboratory: Midland
Analysis: BTEX
QC Batch: 51111
Prep Batch: 43846

Analytical Method: S 8021B
Date Analyzed: 2008-08-04
Sample Preparation: 2008-08-04

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

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		0.0274	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.816	mg/Kg	1	1.00	82	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.843	mg/Kg	1	1.00	84	48.2 - 155

Sample: 169367 - AH-1 (0-1')

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 51119
Prep Batch: 43850

Analytical Method: SM 4500-Cl B
Date Analyzed: 2008-08-05
Sample Preparation: 2008-08-05

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3460	mg/Kg	50	2.00

Sample: 169367 - AH-1 (0-1')

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 51101
Prep Batch: 43788

Analytical Method: Mod. 8015B
Date Analyzed: 2008-08-04
Sample Preparation: 2008-08-04

Prep Method: N/A
Analyzed By: LD
Prepared By: LD

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

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 6 of 38
Eddy Co, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		175	mg/Kg	1	100	175	10 - 250.4

Sample: 169367 - AH-1 (0-1')

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 51110
Prep Batch: 43846

Analytical Method: S 8015B
Date Analyzed: 2008-08-04
Sample Preparation: 2008-08-04

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	1.22	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.950	mg/Kg	1	1.00	95	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.923	mg/Kg	1	1.00	92	63.8 - 141

Sample: 169368 - AH-1 (2-2.5')

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 51119
Prep Batch: 43850

Analytical Method: SM 4500-Cl B
Date Analyzed: 2008-08-05
Sample Preparation: 2008-08-05

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1610	mg/Kg	50	2.00

Sample: 169369 - AH-1 (3-3.5')

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 51119
Prep Batch: 43850

Analytical Method: SM 4500-Cl B
Date Analyzed: 2008-08-05
Sample Preparation: 2008-08-05

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4910	mg/Kg	50	2.00

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 7 of 38
Eddy Co, NM

Sample: 169370 - AH-1 (4-4.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51171	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43858				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		905	mg/Kg	50	2.00

Sample: 169371 - AH-1 (5-5.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-05	Analyzed By:	AG
QC Batch:	51119	Sample Preparation:	2008-08-05	Prepared By:	AG
Prep Batch:	43850				

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

Sample: 169372 - AH-2 (0-1')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51171	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43858				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3790	mg/Kg	50	2.00

Sample: 169372 - AH-2 (0-1')

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2008-08-04	Analyzed By:	LD
QC Batch:	51101	Sample Preparation:	2008-08-04	Prepared By:	LD
Prep Batch:	43788				

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

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 8 of 38
Eddy Co, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		202	mg/Kg	1	100	202	10 - 250.4

Sample: 169372 - AH-2 (0-1')

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 51110
Prep Batch: 43846

Analytical Method: S 8015B
Date Analyzed: 2008-08-04
Sample Preparation: 2008-08-04

Prep Method: S 5035
Analyzed By: DC
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)		0.955	mg/Kg	1	1.00	96	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.882	mg/Kg	1	1.00	88	63.8 - 141

Sample: 169373 - AH-2 (2-2.5')

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 51171
Prep Batch: 43858

Analytical Method: SM 4500-Cl B
Date Analyzed: 2008-08-06
Sample Preparation: 2008-08-05

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3190	mg/Kg	50	2.00

Sample: 169374 - AH-2 (3-3.5')

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 51171
Prep Batch: 43858

Analytical Method: SM 4500-Cl B
Date Analyzed: 2008-08-06
Sample Preparation: 2008-08-05

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3340	mg/Kg	50	2.00

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 9 of 38
Eddy Co, NM

Sample: 169375 - AH-2 (4-4.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51171	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43858				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3360	mg/Kg	50	2.00

Sample: 169376 - AH-2 (5-5.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51171	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43858				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2920	mg/Kg	50	2.00

Sample: 169377 - AH-2 (6-6.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51171	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43858				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8360	mg/Kg	50	2.00

Sample: 169378 - AH-2 (7-7.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51171	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43858				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		16900	mg/Kg	50	2.00

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 10 of 38
Eddy Co, NM

Sample: 169379 - AH-3 (0-1')

Laboratory:	Midland	Analytical Method:	SM 4500-C1 B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51171	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43858				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3030	mg/Kg	50	2.00

Sample: 169379 - AH-3 (0-1')

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2008-08-04	Analyzed By:	LD
QC Batch:	51101	Sample Preparation:	2008-08-04	Prepared By:	LD
Prep Batch:	43788				

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		184	mg/Kg	1	100	184	10 - 250.4

Sample: 169379 - AH-3 (0-1')

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2008-08-04	Analyzed By:	DC
QC Batch:	51110	Sample Preparation:	2008-08-04	Prepared By:	DC
Prep Batch:	43846				

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)		0.914	mg/Kg	1	1.00	91	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.837	mg/Kg	1	1.00	84	63.8 - 141

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 11 of 38
Eddy Co, NM

Sample: 169380 - AH-3 (2-2.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51171	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43858				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1420	mg/Kg	50	2.00

Sample: 169381 - AH-3 (3-3.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51172	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43859				

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

Sample: 169382 - AH-3 (4-4.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51172	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43859				

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

Sample: 169383 - AH-4 (0-1')

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2008-08-04	Analyzed By:	DC
QC Batch:	51111	Sample Preparation:	2008-08-04	Prepared By:	DC
Prep Batch:	43846				

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

continued ...

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 12 of 38
Eddy Co, NM

sample 169383 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)		0.821	mg/Kg	1	1.00	82	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.803	mg/Kg	1	1.00	80	48.2 - 155

Sample: 169383 - AH-4 (0-1')

Laboratory: Midland			
Analysis: Chloride (Titration)	Analytical Method: SM 4500-Cl B	Prep Method: N/A	
QC Batch: 51172	Date Analyzed: 2008-08-06	Analyzed By: AR	
Prep Batch: 43859	Sample Preparation: 2008-08-05	Prepared By: AR	

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		850	mg/Kg	50	2.00

Sample: 169383 - AH-4 (0-1')

Laboratory: Midland			
Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A	
QC Batch: 51101	Date Analyzed: 2008-08-04	Analyzed By: LD	
Prep Batch: 43788	Sample Preparation: 2008-08-04	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		193	mg/Kg	1	100	193	10 - 250.4

Sample: 169383 - AH-4 (0-1')

Laboratory: Midland			
Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035	
QC Batch: 51110	Date Analyzed: 2008-08-04	Analyzed By: DC	
Prep Batch: 43846	Sample Preparation: 2008-08-04	Prepared By: DC	

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 13 of 38
Eddy Co, NM

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)		0.949	mg/Kg	1	1.00	95	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.870	mg/Kg	1	1.00	87	63.8 - 141

Sample: 169384 - AH-4 (2-2.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51172 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43859 Sample Preparation: 2008-08-05 Prepared By: AR

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

Sample: 169385 - AH-4 (3-3.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51172 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43859 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		270	mg/Kg	50	2.00

Sample: 169386 - AH-4 (4-4.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51172 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43859 Sample Preparation: 2008-08-05 Prepared By: AR

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

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 14 of 38
Eddy Co, NM

Sample: 169387 - AH-5 (0-1')

Laboratory: Midland
Analysis: BTEX
QC Batch: 51111
Prep Batch: 43846

Analytical Method: S 8021B
Date Analyzed: 2008-08-04
Sample Preparation: 2008-08-04

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

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		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.795	mg/Kg	1	1.00	80	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.787	mg/Kg	1	1.00	79	48.2 - 155

Sample: 169387 - AH-5 (0-1')

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 51172
Prep Batch: 43859

Analytical Method: SM 4500-Cl B
Date Analyzed: 2008-08-06
Sample Preparation: 2008-08-05

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1930	mg/Kg	50	2.00

Sample: 169387 - AH-5 (0-1')

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 51101
Prep Batch: 43788

Analytical Method: Mod. 8015B
Date Analyzed: 2008-08-04
Sample Preparation: 2008-08-04

Prep Method: N/A
Analyzed By: LD
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		165	mg/Kg	1	100	165	10 - 250.4

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 15 of 38
Eddy Co, NM

Sample: 169387 - AH-5 (0-1')

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2008-08-04	Analyzed By:	DC
QC Batch:	51110	Sample Preparation:	2008-08-04	Prepared By:	DC
Prep Batch:	43846				

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)		0.923	mg/Kg	1	1.00	92	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.854	mg/Kg	1	1.00	85	63.8 - 141

Sample: 169388 - AH-5 (2-2.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51172	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43859				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		122	mg/Kg	50	2.00

Sample: 169389 - AH-5 (3-3.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51172	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43859				

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

Sample: 169390 - AH-6 (0-1')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51172	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43859				

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 16 of 38
Eddy Co, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3680	mg/Kg	50	2.00

Sample: 169390 - AH-6 (0-1')

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 51101 Date Analyzed: 2008-08-04 Analyzed By: LD
Prep Batch: 43788 Sample Preparation: 2008-08-04 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		193	mg/Kg	1	100	193	10 - 250.4

Sample: 169390 - AH-6 (0-1')

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 51110 Date Analyzed: 2008-08-04 Analyzed By: DC
Prep Batch: 43846 Sample Preparation: 2008-08-04 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)		0.944	mg/Kg	1	1.00	94	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.873	mg/Kg	1	1.00	87	63.8 - 141

Sample: 169391 - AH-6 (2-2.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51173 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43860 Sample Preparation: 2008-08-05 Prepared By: AR

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 17 of 38
Eddy Co, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2800	mg/Kg	50	2.00

Sample: 169392 - AH-6 (3-3.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51173 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43860 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		829	mg/Kg	50	2.00

Sample: 169393 - AH-6 (4-4.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51173 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43860 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4290	mg/Kg	50	2.00

Sample: 169394 - AH-6 (5-5.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51173 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43860 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1020	mg/Kg	50	2.00

Sample: 169395 - AH-6 (6-6.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51173 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43860 Sample Preparation: 2008-08-05 Prepared By: AR

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 18 of 38
Eddy Co, NM

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

Sample: 169396 - AH-6 (7-7.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51173 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43860 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		543	mg/Kg	50	2.00

Sample: 169397 - AH-7 (0-1')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51173 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43860 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2510	mg/Kg	50	2.00

Sample: 169397 - AH-7 (0-1')

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 51101 Date Analyzed: 2008-08-04 Analyzed By: LD
Prep Batch: 43788 Sample Preparation: 2008-08-04 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		197	mg/Kg	1	100	197	10 - 250.4

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 19 of 38
Eddy Co, NM

Sample: 169397 - AH-7 (0-1')

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2008-08-04	Analyzed By:	DC
QC Batch:	51110	Sample Preparation:	2008-08-04	Prepared By:	DC
Prep Batch:	43846				

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)		0.969	mg/Kg	1	1.00	97	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.878	mg/Kg	1	1.00	88	63.8 - 141

Sample: 169398 - AH-7 (2-2.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51173	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43860				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		108	mg/Kg	50	2.00

Sample: 169399 - AH-7 (3-3.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51173	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43860				

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

Sample: 169400 - AH-8 (0-1')

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2008-08-04	Analyzed By:	DC
QC Batch:	51111	Sample Preparation:	2008-08-04	Prepared By:	DC
Prep Batch:	43846				

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 20 of 38
Eddy Co, NM

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		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.792	mg/Kg	1	1.00	79	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.767	mg/Kg	1	1.00	77	48.2 - 155

Sample: 169400 - AH-8 (0-1')

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2008-08-06	Analyzed By: AR
QC Batch: 51173	Sample Preparation: 2008-08-05	Prepared By: AR
Prep Batch: 43860		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3090	mg/Kg	50	2.00

Sample: 169400 - AH-8 (0-1')

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-08-04	Analyzed By: LD
QC Batch: 51101	Sample Preparation: 2008-08-04	Prepared By: LD
Prep Batch: 43788		

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		158	mg/Kg	1	100	158	10 - 250.4

Sample: 169400 - AH-8 (0-1')

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2008-08-04	Analyzed By: DC
QC Batch: 51110	Sample Preparation: 2008-08-04	Prepared By: DC
Prep Batch: 43846		

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 21 of 38
Eddy Co, NM

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)		0.916	mg/Kg	1	1.00	92	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.834	mg/Kg	1	1.00	83	63.8 - 141

Sample: 169401 - AH-8 (2-2.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51174 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43861 Sample Preparation: 2008-08-05 Prepared By: AR

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

Sample: 169402 - AH-8 (3-3.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51174 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43861 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		224	mg/Kg	50	2.00

Sample: 169403 - AH-8 (5-5.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51174 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43861 Sample Preparation: 2008-08-05 Prepared By: AR

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

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 22 of 38
Eddy Co, NM

Sample: 169404 - AH-9 (0-1')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51174	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43861				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		556	mg/Kg	50	2.00

Sample: 169404 - AH-9 (0-1')

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2008-08-04	Analyzed By:	LD
QC Batch:	51101	Sample Preparation:	2008-08-04	Prepared By:	LD
Prep Batch:	43788				

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		194	mg/Kg	1	100	194	10 - 250.4

Sample: 169404 - AH-9 (0-1')

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2008-08-04	Analyzed By:	DC
QC Batch:	51110	Sample Preparation:	2008-08-04	Prepared By:	DC
Prep Batch:	43846				

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)		0.909	mg/Kg	1	1.00	91	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.833	mg/Kg	1	1.00	83	63.8 - 141

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 23 of 38
Eddy Co, NM

Sample: 169405 - AH-9 (2-2.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51174	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43861				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		143	mg/Kg	50	2.00

Sample: 169406 - AH-9 (3-3.5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51174	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43861				

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

Sample: 169407 - AH-9 (3.5-4.0')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-08-06	Analyzed By:	AR
QC Batch:	51174	Sample Preparation:	2008-08-05	Prepared By:	AR
Prep Batch:	43861				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5930	mg/Kg	50	2.00

Sample: 169408 - AH-10 (0-1')

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2008-08-04	Analyzed By:	DC
QC Batch:	51111	Sample Preparation:	2008-08-04	Prepared By:	DC
Prep Batch:	43846				

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

continued ...

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 24 of 38
Eddy Co, NM

sample 169408 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)		0.783	mg/Kg	1	1.00	78	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.773	mg/Kg	1	1.00	77	48.2 - 155

Sample: 169408 - AH-10 (0-1')

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2008-08-06	Analyzed By: AR
QC Batch: 51174	Sample Preparation: 2008-08-05	Prepared By: AR
Prep Batch: 43861		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		648	mg/Kg	50	2.00

Sample: 169408 - AH-10 (0-1')

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-08-04	Analyzed By: LD
QC Batch: 51101	Sample Preparation: 2008-08-04	Prepared By: LD
Prep Batch: 43788		

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		158	mg/Kg	1	100	158	10 - 250.4

Sample: 169408 - AH-10 (0-1')

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2008-08-04	Analyzed By: DC
QC Batch: 51110	Sample Preparation: 2008-08-04	Prepared By: DC
Prep Batch: 43846		

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 25 of 38
Eddy Co, NM

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)		0.907	mg/Kg	1	1.00	91	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.842	mg/Kg	1	1.00	84	63.8 - 141

Sample: 169409 - AH-10 (2-2.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51174 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43861 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1360	mg/Kg	50	2.00

Sample: 169410 - AH-10 (3-3.5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 51174 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43861 Sample Preparation: 2008-08-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		12600	mg/Kg	50	2.00

Method Blank (1) QC Batch: 51101

QC Batch: 51101 Date Analyzed: 2008-08-04 Analyzed By: LD
Prep Batch: 43788 QC Preparation: 2008-08-04 Prepared By: LD

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

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 26 of 38
Eddy Co, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		76.6	mg/Kg	1	100	77	30.9 - 146.4

Method Blank (1) QC Batch: 51110

QC Batch: 51110 Date Analyzed: 2008-08-04 Analyzed By: DC
Prep Batch: 43846 QC Preparation: 2008-08-04 Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		0.946	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.941	mg/Kg	1	1.00	94	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.874	mg/Kg	1	1.00	87	16.8 - 138.1

Method Blank (1) QC Batch: 51111

QC Batch: 51111 Date Analyzed: 2008-08-04 Analyzed By: DC
Prep Batch: 43846 QC Preparation: 2008-08-04 Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00580	mg/Kg	0.01
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)		0.820	mg/Kg	1	1.00	82	48.3 - 132.5
4-Bromofluorobenzene (4-BFB)		0.807	mg/Kg	1	1.00	81	37.7 - 128.9

Method Blank (1) QC Batch: 51119

QC Batch: 51119 Date Analyzed: 2008-08-05 Analyzed By: AG
Prep Batch: 43850 QC Preparation: 2008-08-05 Prepared By: AR

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

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 27 of 38
Eddy Co, NM

Method Blank (1) QC Batch: 51171

QC Batch: 51171 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43858 QC Preparation: 2008-08-05 Prepared By: AR

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

Method Blank (1) QC Batch: 51172

QC Batch: 51172 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43859 QC Preparation: 2008-08-05 Prepared By: AR

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

Method Blank (1) QC Batch: 51173

QC Batch: 51173 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43860 QC Preparation: 2008-08-05 Prepared By: AR

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

Method Blank (1) QC Batch: 51174

QC Batch: 51174 Date Analyzed: 2008-08-06 Analyzed By: AR
Prep Batch: 43861 QC Preparation: 2008-08-05 Prepared By: AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 51101 Date Analyzed: 2008-08-04 Analyzed By: LD
Prep Batch: 43788 QC Preparation: 2008-08-04 Prepared By: LD

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 28 of 38
Eddy Co, NM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	290	mg/Kg	1	250	<15.8	116	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	301	mg/Kg	1	250	<15.8	120	27.8 - 152.1	4	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	122	120	mg/Kg	1	100	122	120	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 51110
Prep Batch: 43846

Date Analyzed: 2008-08-04
QC Preparation: 2008-08-04

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.28	mg/Kg	1	10.0	0.946	83	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	8.69	mg/Kg	1	10.0	0.946	77	57.5 - 106.4	7	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)	0.958	0.954	mg/Kg	1	1.00	96	95	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.896	0.900	mg/Kg	1	1.00	90	90	53.3 - 123.6

Laboratory Control Spike (LCS-1)

QC Batch: 51111
Prep Batch: 43846

Date Analyzed: 2008-08-04
QC Preparation: 2008-08-04

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.902	mg/Kg	1	1.00	<0.00580	90	73.3 - 116.6
Toluene	0.925	mg/Kg	1	1.00	<0.00470	92	78.6 - 115.1
Ethylbenzene	0.910	mg/Kg	1	1.00	<0.00530	91	77.4 - 114.9

continued ...

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 29 of 38
Eddy Co, NM

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	2.73	mg/Kg	1	3.00	<0.0136	91	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	0.883	mg/Kg	1	1.00	<0.00580	88	73.3 - 116.6	2	20
Toluene	0.901	mg/Kg	1	1.00	<0.00470	90	78.6 - 115.1	3	20
Ethylbenzene	0.891	mg/Kg	1	1.00	<0.00530	89	77.4 - 114.9	2	20
Xylene	2.68	mg/Kg	1	3.00	<0.0136	89	78.2 - 114.7	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
Trifluorotoluene (TFT)	0.821	0.806	mg/Kg	1	1.00	82	81	45 - 124.2
4-Bromofluorobenzene (4-BFB)	0.825	0.812	mg/Kg	1	1.00	82	81	47.2 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 51119
Prep Batch: 43850

Date Analyzed: 2008-08-05
QC Preparation: 2008-08-05

Analyzed By: AG
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<0.500	101	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	103	mg/Kg	1	100	<0.500	103	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: 51171
Prep Batch: 43858

Date Analyzed: 2008-08-06
QC Preparation: 2008-08-05

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.7	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.

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 30 of 38
Eddy Co, NM

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.

Laboratory Control Spike (LCS-1)

QC Batch: 51172
Prep Batch: 43859

Date Analyzed: 2008-08-06
QC Preparation: 2008-08-05

Analyzed By: AR
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	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: 51173
Prep Batch: 43860

Date Analyzed: 2008-08-06
QC Preparation: 2008-08-05

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.3	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	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: 51174
Prep Batch: 43861

Date Analyzed: 2008-08-06
QC Preparation: 2008-08-05

Analyzed By: AR
Prepared By: AR

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<0.500	101	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	99.9	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.

Matrix Spike (MS-1) Spiked Sample: 169363

QC Batch: 51101
Prep Batch: 43788

Date Analyzed: 2008-08-04
QC Preparation: 2008-08-04

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	279	mg/Kg	1	250	<15.8	112	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	307	mg/Kg	1	250	<15.8	123	18 - 179.5	10	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	113	121	mg/Kg	1	100	113	121	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 169408

QC Batch: 51110
Prep Batch: 43846

Date Analyzed: 2008-08-04
QC Preparation: 2008-08-04

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.9	mg/Kg	1	10.0	<0.442	189	10 - 139.3

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

¹ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 32 of 38
Eddy Co, NM

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	²	18.7	mg/Kg	1	10.0	<0.442	187	10 - 139.3	1	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)	0.958	0.970	mg/Kg	1	1	96	97	21.3 - 119
4-Bromofluorobenzene (4-BFB)	0.911	0.928	mg/Kg	1	1	91	93	52.5 - 154

Matrix Spike (MS-1) Spiked Sample: 169408

QC Batch: 51111
Prep Batch: 43846

Date Analyzed: 2008-08-04
QC Preparation: 2008-08-04

Analyzed By: DC
Prepared By: DC

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		0.933	mg/Kg	1	1.00	<0.00580	93	62.2 - 134.3
Toluene		0.955	mg/Kg	1	1.00	<0.00470	96	62.6 - 145.4
Ethylbenzene		0.955	mg/Kg	1	1.00	<0.00530	96	64.6 - 146.4
Xylene		2.89	mg/Kg	1	3.00	<0.0136	96	64.3 - 148.8

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
Benzene	³	1.59	mg/Kg	1	1.00	<0.00580	159	62.2 - 134.3	52	20
Toluene	⁴	1.66	mg/Kg	1	1.00	<0.00470	166	62.6 - 145.4	54	20
Ethylbenzene	⁵	1.69	mg/Kg	1	1.00	<0.00530	169	64.6 - 146.4	56	20
Xylene	⁶	5.12	mg/Kg	1	3.00	<0.0136	171	64.3 - 148.8	56	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)	0.831	0.780	mg/Kg	1	1	83	78	38.8 - 127.5
4-Bromofluorobenzene (4-BFB)	0.898	0.810	mg/Kg	1	1	90	81	49.3 - 142.4

Matrix Spike (MS-1) Spiked Sample: 169371

QC Batch: 51119
Prep Batch: 43850

Date Analyzed: 2008-08-05
QC Preparation: 2008-08-05

Analyzed By: AG
Prepared By: AR

²Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

³Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁴Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁶Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 33 of 38
Eddy Co, NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	4940	mg/Kg	50	5000	52.55	98	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	4970	mg/Kg	50	5000	52.55	98	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: 169380

QC Batch: 51171
Prep Batch: 43858

Date Analyzed: 2008-08-06
QC Preparation: 2008-08-05

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	6400	mg/Kg	50	5000	1417	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	6520	mg/Kg	50	5000	1417	102	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: 169390

QC Batch: 51172
Prep Batch: 43859

Date Analyzed: 2008-08-06
QC Preparation: 2008-08-05

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	8760	mg/Kg	50	5000	3684	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	8840	mg/Kg	50	5000	3684	103	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: 169400

QC Batch: 51173
Prep Batch: 43860

Date Analyzed: 2008-08-06
QC Preparation: 2008-08-05

Analyzed By: AR
Prepared By: AR

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 34 of 38
Eddy Co, NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	7970	mg/Kg	50	5000	3093	98	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	8040	mg/Kg	50	5000	3093	99	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: 169410

QC Batch: 51174
Prep Batch: 43861

Date Analyzed: 2008-08-06
QC Preparation: 2008-08-05

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	17600	mg/Kg	50	5000	12602	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	18000	mg/Kg	50	5000	12602	108	85 - 115	2	20

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

Standard (ICV-1)

QC Batch: 51101

Date Analyzed: 2008-08-04

Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	245	98	85 - 115	2008-08-04

Standard (CCV-1)

QC Batch: 51101

Date Analyzed: 2008-08-04

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	286	114	85 - 115	2008-08-04

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 35 of 38
Eddy Co, NM

Standard (CCV-2)

QC Batch: 51101

Date Analyzed: 2008-08-04

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	284	114	85 - 115	2008-08-04

Standard (ICV-1)

QC Batch: 51110

Date Analyzed: 2008-08-04

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	1.08	108	85 - 115	2008-08-04

Standard (CCV-1)

QC Batch: 51110

Date Analyzed: 2008-08-04

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	1.07	107	85 - 115	2008-08-04

Standard (ICV-1)

QC Batch: 51111

Date Analyzed: 2008-08-04

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	85 - 115	2008-08-04
Toluene		mg/Kg	0.100	0.102	102	85 - 115	2008-08-04
Ethylbenzene		mg/Kg	0.100	0.101	101	85 - 115	2008-08-04
Xylene		mg/Kg	0.300	0.304	101	85 - 115	2008-08-04

Standard (CCV-1)

QC Batch: 51111

Date Analyzed: 2008-08-04

Analyzed By: DC

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 36 of 38
Eddy Co, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0927	93	85 - 115	2008-08-04
Toluene		mg/Kg	0.100	0.0932	93	85 - 115	2008-08-04
Ethylbenzene		mg/Kg	0.100	0.0912	91	85 - 115	2008-08-04
Xylene		mg/Kg	0.300	0.275	92	85 - 115	2008-08-04

Standard (ICV-1)

QC Batch: 51119

Date Analyzed: 2008-08-05

Analyzed By: AG

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	2008-08-05

Standard (CCV-1)

QC Batch: 51119

Date Analyzed: 2008-08-05

Analyzed By: AG

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	2008-08-05

Standard (ICV-1)

QC Batch: 51171

Date Analyzed: 2008-08-06

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2008-08-06

Standard (CCV-1)

QC Batch: 51171

Date Analyzed: 2008-08-06

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	2008-08-06

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 37 of 38
Eddy Co, NM

Standard (ICV-1)

QC Batch: 51172

Date Analyzed: 2008-08-06

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2008-08-06

Standard (CCV-1)

QC Batch: 51172

Date Analyzed: 2008-08-06

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	2008-08-06

Standard (ICV-1)

QC Batch: 51173

Date Analyzed: 2008-08-06

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	2008-08-06

Standard (CCV-1)

QC Batch: 51173

Date Analyzed: 2008-08-06

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	2008-08-06

Standard (ICV-1)

QC Batch: 51174

Date Analyzed: 2008-08-06

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.7	99	85 - 115	2008-08-06

Report Date: August 7, 2008
115-6403572

Work Order: 8080408
St. Mary's/ESDU #20 SWD

Page Number: 38 of 38
Eddy Co, NM

Standard (CCV-1)

QC Batch: 51174

Date Analyzed: 2008-08-06

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	2008-08-06

8080408

PAGE:

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:

Land +

SITE MANAGER:

ST. MARY

Exploration

IKE TAVAREZ

PROJECT NO.:

PROJECT NAME:

15-6403572

ESDU #20 SWD

EDDY CO., N.M.

SAMPLE IDENTIFICATION

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

169367

7/31/08

S

X

368

369

370

371

372

373

8080408

Analysis Request of Chain of Custody Record										PAGE: <u>2</u> OF: <u>5</u>	
HIGHLANDER ENVIRONMENTAL CORP.										ANALYSIS REQUEST (Circle or Specify Method No.)	
1910 N. Big Spring St. Midland, Texas 79705											
(432) 682-4559										Fax (432) 682-3946	
CLIENT NAME: <u>Land T. ST. MARY Exploration</u>			SITE MANAGER: <u>IKE TAVAREZ</u>			NUMBER OF CONTAINERS		PRESERVATIVE METHOD			
PROJECT NO.: <u>115-6403572</u>			PROJECT NAME: <u>ESDU #20 SWD</u>			FILTERED (Y/N)					
			<u>EDDY CO, N.M.</u>								
			<u>SAMPLE IDENTIFICATION</u>								
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB		HCL	HNO3	ICE	NONE	
169377	7/31/08		S						X		
378											
379											
380											
381											
382											
383											
384											
385											
386											
RELINQUISHED BY: (Signature) <u>[Signature]</u>			Date: <u>8/1/08</u>			RECEIVED BY: (Signature) <u>[Signature]</u>			Date: <u>8/1/08</u>		
RELINQUISHED BY: (Signature)			Date:			RECEIVED BY: (Signature)			Date:		
RELINQUISHED BY: (Signature)			Date:			RECEIVED BY: (Signature)			Date:		
RECEIVING LABORATORY: <u>TRACE</u>			RECEIVED BY: (Signature)			SAMPLE SHIPPED BY: (Circle)			AIRBILL #:		
ADDRESS: <u>Midland TX</u>			CITY: <u>Midland</u> STATE: <u>TX</u> ZIP: <u></u>			FEDEX <u></u> BUS <u></u>			OTHER: <u></u>		
CONTACT: <u></u> PHONE: <u></u>			DATE: <u></u> TIME: <u></u>			HAND DELIVERED <u></u> UPS <u></u>			OTHER: <u></u>		
SAMPLE CONDITION WHEN RECEIVED: <u>Ascd Intact 3.5°</u>			REMARKS: <u>TPH-Dro, Gro, Chloride-Midland</u>			HIGHLANDER CONTACT PERSON: <u>IKE TAVAREZ</u>			Results by:		
									RUSH Charges Authorized: <u>No</u>		

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

8080408

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: Land + ST. MARY Exploration			SITE MANAGER: IKE TAVAREZ			NUMBER OF CONTAINERS		PRESERVATIVE METHOD		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. 8240/8260/824 GC/MS Semi. Vol. 8270/825 PCB's 8080/808 Pest. 808/608 Chloride Gamma Spec. Alpha Beta (Air) PLM (Asbestos) Major Anions/Cations, pH, TDS																														
PROJECT NO.: 115-6403572			PROJECT NAME: ESDU #20 SWD			FILTERED (Y/N)																																		
LAB I.D. NUMBER			DATE			TIME			MATRIX			COMP.			GRAB			SAMPLE IDENTIFICATION			HCL		HNO3		ICE		NONE													
169387			7/31/08						5			X						AH-5 (0-1')			1				X				X											
388									1									AH-5 (2-2.5')																						
389																		AH-5 (3-3.5')																						
390																		AH-6 (0-1')											X											
391																		AH-6 (2-2.5')																						
392																		AH-6 (3-3.5')																						
393																		AH-6 (4-4.5')																						
394																		AH-6 (5-5.5')																						
395																		AH-6 (6-6.5')																						
396																		AH-6 (7-7.5')																						
RELINQUISHED BY: (Signature)			Date: 7/31/08			Time: 6:30			RECEIVED BY: (Signature)			Date: 8/04/08			Time: 09:50			SAMPLED BY: (Print & Initial)			Date: 7/31/08			Time: 09:50			Ray Taylor / Gerald Carrillo			AIRBILL #:										
RELINQUISHED BY: (Signature)			Date:			Time:			RECEIVED BY: (Signature)			Date:			Time:			SAMPLE SHIPPED BY: (Circle)			FEDEX			BUS			AIRBILL #:													
RELINQUISHED BY: (Signature)			Date:			Time:			RECEIVED BY: (Signature)			Date:			Time:			HAND DELIVERED			UPS			OTHER:			RESULTS BY:													
RECEIVING LABORATORY: Trace			ADDRESS:			CITY: Midland STATE: TX ZIP:			RECEIVED BY: (Signature)			DATE:			TIME:			HIGHLANDER CONTACT PERSON:			IKE TAVAREZ			RUSH Charges Authorized:			Yes ☐ No ☒													
SAMPLE CONDITION WHEN RECEIVED:			REMARKS:			TPH Dro, Gro, Chloride - midland																																		

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

8080408

PAGE: 4 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:

Land +

SITE MANAGER:

ST MARY Exploration

IKE TAVAREZ

PROJECT NO.:

PROJECT NAME:

15-6403572

ES DU #20 SUD

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE
METHOD

BTX 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 Cr Pb 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

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLED BY: (Print & Initial)

Date:

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

HAND DELIVERED

OTHER:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

Good Intact 3.5

TPH Gro, Dro, Chloride - Midland

HIGHLANDER CONTACT PERSON:

IKE TAVAREZ

Results by:

RUSH Charges

Authorized:

Yes

No

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

8080408

PAGE: 5 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:

SITE MANAGER:

St Mary Land & Exploration IKE TAVAREZ

PROJECT NO.:

PROJECT NAME:

115-6403572

ESDU # 205WD

Eddy CO NM
SAMPLE IDENTIFICATION

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	
1694077	7/31/08		S	X		AH-9 (3.5-4.0')
408						AH-10 (0-1')
409						AH-10 (2-2.5')
410						AH-10 (3-3.5')

PRESERVATIVE
METHOD

NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE
				X	
				X	
				X	
				X	

BTEX 8021B
TPH 8015 MOD. TX1005 (Ext. to C85)
PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb 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

RELINQUISHED BY: (Signature)

Date:

8/9/08

RECEIVED BY: (Signature)

Date:

8/9/08

SAMPLED BY: (Print & Initial)

Date:

7/31/08

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

HIGHLANDER CONTACT PERSON:

OTHER:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland STATE: TX ZIP: 79705

CONTACT: PHONE: DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

Good/Intact 3.5' TPH Dro, Gro, Chloride - Midland

IKE TAVAREZ

Results by:

RUSH Charges

Authorized:

Yes No

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

SUMMARY REPORT
November 7, 2008

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 1 of 3
Eddy Co, NM

Summary Report

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

Report Date: November 7, 2008

Work Order: 8103116



Project Location: Eddy Co, NM
Project Name: St. Mary's/ESDU #20 SWD
Project Number: 115-6403572

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
177802	T-1 0-1'	soil	2008-10-29	00:00	2008-10-31
177803	T-1 3.0'	soil	2008-10-29	00:00	2008-10-31
177804	T-1 5.0'	soil	2008-10-29	00:00	2008-10-31
177805	T-1 7.0'	soil	2008-10-29	00:00	2008-10-31
177806	T-1 9.0'	soil	2008-10-29	00:00	2008-10-31
177807	T-1 11.0'	soil	2008-10-29	00:00	2008-10-31
177808	BH-1 0-1'	soil	2008-10-29	00:00	2008-10-31
177809	BH-1 2-3'	soil	2008-10-29	00:00	2008-10-31
177810	BH-1 4-5'	soil	2008-10-29	00:00	2008-10-31
177811	BH-1 6-7'	soil	2008-10-29	00:00	2008-10-31
177812	BH-1 8-9'	soil	2008-10-29	00:00	2008-10-31
177813	BH-1 10-11'	soil	2008-10-29	00:00	2008-10-31
177814	BH-1 12-13'	soil	2008-10-29	00:00	2008-10-31
177815	BH-1 14-15'	soil	2008-10-29	00:00	2008-10-31

Sample: 177802 - T-1 0-1'

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

Sample: 177803 - T-1 3.0'

Param	Flag	Result	Units	RL
Chloride		328	mg/Kg	2.00

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 2 of 3
Eddy Co, NM

Sample: 177804 - T-1 5.0'

Param	Flag	Result	Units	RL
Chloride		3540	mg/Kg	2.00

Sample: 177805 - T-1 7.0'

Param	Flag	Result	Units	RL
Chloride		13100	mg/Kg	2.00

Sample: 177806 - T-1 9.0'

Param	Flag	Result	Units	RL
Chloride		11700	mg/Kg	2.00

Sample: 177807 - T-1 11.0'

Param	Flag	Result	Units	RL
Chloride		182	mg/Kg	2.00

Sample: 177808 - BH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		245	mg/Kg	2.00

Sample: 177809 - BH-1 2-3'

Param	Flag	Result	Units	RL
Chloride		235	mg/Kg	2.00

Sample: 177810 - BH-1 4-5'

Param	Flag	Result	Units	RL
Chloride		8990	mg/Kg	2.00

Sample: 177811 - BH-1 6-7'

Param	Flag	Result	Units	RL
Chloride		9360	mg/Kg	2.00

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 3 of 3
Eddy Co, NM

Sample: 177812 - BH-1 8-9'

Param	Flag	Result	Units	RL
Chloride		5410	mg/Kg	2.00

Sample: 177813 - BH-1 10-11'

Param	Flag	Result	Units	RL
Chloride		3260	mg/Kg	2.00

Sample: 177814 - BH-1 12-13'

Param	Flag	Result	Units	RL
Chloride		417	mg/Kg	2.00

Sample: 177815 - BH-1 14-15'

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



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

Analytical and Quality Control Report

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

Report Date: November 7, 2008

Work Order: 8103116



Project Location: Eddy Co, NM
Project Name: St. Mary's/ESDU #20 SWD
Project Number: 115-6403572

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
177802	T-1 0-1'	soil	2008-10-29	00:00	2008-10-31
177803	T-1 3.0'	soil	2008-10-29	00:00	2008-10-31
177804	T-1 5.0'	soil	2008-10-29	00:00	2008-10-31
177805	T-1 7.0'	soil	2008-10-29	00:00	2008-10-31
177806	T-1 9.0'	soil	2008-10-29	00:00	2008-10-31
177807	T-1 11.0'	soil	2008-10-29	00:00	2008-10-31
177808	BH-1 0-1'	soil	2008-10-29	00:00	2008-10-31
177809	BH-1 2-3'	soil	2008-10-29	00:00	2008-10-31
177810	BH-1 4-5'	soil	2008-10-29	00:00	2008-10-31
177811	BH-1 6-7'	soil	2008-10-29	00:00	2008-10-31

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
177812	BH-1 8-9'	soil	2008-10-29	00:00	2008-10-31
177813	BH-1 10-11'	soil	2008-10-29	00:00	2008-10-31
177814	BH-1 12-13'	soil	2008-10-29	00:00	2008-10-31
177815	BH-1 14-15'	soil	2008-10-29	00:00	2008-10-31

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

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project St. Mary's/ESDU #20 SWD were received by TraceAnalysis, Inc. on 2008-10-31 and assigned to work order 8103116. Samples for work order 8103116 were received intact at a temperature of 3.5 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 8103116 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.

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 4 of 11
Eddy Co, NM

Analytical Report

Sample: 177802 - T-1 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53966	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46165				

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

Sample: 177803 - T-1 3.0'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53966	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46165				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		328	mg/Kg	50	2.00

Sample: 177804 - T-1 5.0'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53966	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46165				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3540	mg/Kg	50	2.00

Sample: 177805 - T-1 7.0'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53967	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46166				

continued ...

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 5 of 11
Eddy Co, NM

sample 177805 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		13100	mg/Kg	50	2.00

Sample: 177806 - T-1 9.0'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 53967 Date Analyzed: 2008-11-05 Analyzed By: AR
Prep Batch: 46166 Sample Preparation: 2008-11-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		11700	mg/Kg	50	2.00

Sample: 177807 - T-1 11.0'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 53967 Date Analyzed: 2008-11-05 Analyzed By: AR
Prep Batch: 46166 Sample Preparation: 2008-11-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		182	mg/Kg	50	2.00

Sample: 177808 - BH-1 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 53967 Date Analyzed: 2008-11-05 Analyzed By: AR
Prep Batch: 46166 Sample Preparation: 2008-11-05 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		245	mg/Kg	50	2.00

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 6 of 11
Eddy Co, NM

Sample: 177809 - BH-1 2-3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53967	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46166				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		235	mg/Kg	50	2.00

Sample: 177810 - BH-1 4-5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53967	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46166				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8990	mg/Kg	50	2.00

Sample: 177811 - BH-1 6-7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53967	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46166				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9360	mg/Kg	50	2.00

Sample: 177812 - BH-1 8-9'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53967	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46166				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5410	mg/Kg	50	2.00

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 7 of 11
Eddy Co, NM

Sample: 177813 - BH-1 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53967	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46166				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3260	mg/Kg	50	2.00

Sample: 177814 - BH-1 12-13'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53967	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46166				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		417	mg/Kg	50	2.00

Sample: 177815 - BH-1 14-15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2008-11-05	Analyzed By:	AR
QC Batch:	53968	Sample Preparation:	2008-11-05	Prepared By:	AR
Prep Batch:	46167				

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

Method Blank (1) QC Batch: 53966

QC Batch:	53966	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46165	QC Preparation:	2008-11-05	Prepared By:	AR

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

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 8 of 11
Eddy Co, NM

Method Blank (1) QC Batch: 53967

QC Batch: 53967 Date Analyzed: 2008-11-05 Analyzed By: AR
Prep Batch: 46166 QC Preparation: 2008-11-05 Prepared By: AR

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

Method Blank (1) QC Batch: 53968

QC Batch: 53968 Date Analyzed: 2008-11-05 Analyzed By: AR
Prep Batch: 46167 QC Preparation: 2008-11-05 Prepared By: AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 53966 Date Analyzed: 2008-11-05 Analyzed By: AR
Prep Batch: 46165 QC Preparation: 2008-11-05 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.7	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	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: 53967 Date Analyzed: 2008-11-05 Analyzed By: AR
Prep Batch: 46166 QC Preparation: 2008-11-05 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.8	mg/Kg	1	100	<0.500	100	85 - 115

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 9 of 11
Eddy Co, NM

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	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: 53968
Prep Batch: 46167

Date Analyzed: 2008-11-05
QC Preparation: 2008-11-05

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.2	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.

Matrix Spike (MS-1) Spiked Sample: 177804

QC Batch: 53966
Prep Batch: 46165

Date Analyzed: 2008-11-05
QC Preparation: 2008-11-05

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	8700	mg/Kg	50	5000	3540	103	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	8830	mg/Kg	50	5000	3540	106	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: 177814

QC Batch: 53967
Prep Batch: 46166

Date Analyzed: 2008-11-05
QC Preparation: 2008-11-05

Analyzed By: AR
Prepared By: AR

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 10 of 11
Eddy Co, NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5720	mg/Kg	50	5000	417	106	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	5580	mg/Kg	50	5000	417	103	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: 177826

QC Batch: 53968
Prep Batch: 46167

Date Analyzed: 2008-11-05
QC Preparation: 2008-11-05

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5780	mg/Kg	50	5000	513	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	5920	mg/Kg	50	5000	513	108	85 - 115	2	20

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

Standard (ICV-1)

QC Batch: 53966

Date Analyzed: 2008-11-05

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.2	99	85 - 115	2008-11-05

Standard (CCV-1)

QC Batch: 53966

Date Analyzed: 2008-11-05

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	2008-11-05

Report Date: November 7, 2008
115-6403572

Work Order: 8103116
St. Mary's/ESDU #20 SWD

Page Number: 11 of 11
Eddy Co, NM

Standard (ICV-1)

QC Batch: 53967

Date Analyzed: 2008-11-05

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	2008-11-05

Standard (CCV-1)

QC Batch: 53967

Date Analyzed: 2008-11-05

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.1	99	85 - 115	2008-11-05

Standard (ICV-1)

QC Batch: 53968

Date Analyzed: 2008-11-05

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	2008-11-05

Standard (CCV-1)

QC Batch: 53968

Date Analyzed: 2008-11-05

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	2008-11-05

v = 3, -11



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

PAGE: / OF: 7

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: St Mary Land & Exploration

SITE MANAGER: Ike Tovar

PROJECT NO.:
115-640 3572

PROJECT NAME:			
St Mary / ESDU # 20 SWID			
			Eddy County, NM

LAB I.D. NUMBER	DATE	TIME	TRIX	MP.	AB	SAMPLE IDENTIFICATION
--------------------	------	------	------	-----	----	-----------------------

177802	10/29/08		S	X	T-1	0-1'
803			S	X	T-1	3.0'
804			S	X	T-1	5.0'
805			S	X	T-1	7.0'
806			S	X	T-1	9.0'
807			S	X	T-1	11.0'
808			S	X	BH-1	0-1
809			S	X	BH-1	2'-3
810			S	X	BH-1	4'-5
811			S	X	BH-1	6'-

NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD			
		HCL	HNO3	ICE	NONE

[illegible]

RELINQUISHED BY: (Signature)	Date: 10 May 1968
RELINQUISHED BY: (Signature)	Date: _____
RELINQUISHED BY: (Signature)	Date: _____

RECEIVED BY: (Signature)	Date: _____ Time: _____
RECEIVED BY: (Signature)	Date: _____ Time: _____
RECEIVED BY: (Signature)	Date: _____ Time: _____

SAMPLED BY: (Print & Initial) <i>Ros Taylor</i>		Date: <i>10/20/08</i>
SAMPLE SHIPPED BY: (Circle) FEDEX BUS <u>HAND DELIVERED</u>		Time: _____
TETRA TECH CONTACT PERSON:		AIRBILL #: _____ OTHER: _____
		Results by: _____

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

RECEIVED BY: (Signature) [Signature]
DATE: 10-31-08 TIME: 10:05

Ike Tawroz	RUSH Charges	
	Authorized:	
	Yes	No

SAMPLE CONDITION WHEN RECEIVED: 35°C intact	REMARKS: All tests - Midland
--	---------------------------------

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

