

SITE INFORMATION

2RA-512

Report Type: Closure Report

General Site Information:

Site:	Loco Hills SWD #35-1					
Company:	COG Operating LLC					
Section, Township and Range	Unit P	36	17S	30E		
Lease Number:	API-30-015-31635					
County:	Eddy County					
GPS:	32.78548° N			103.91982° W		
Surface Owner:	State					
Mineral Owner:						
Directions:	From Hwy 529 and Hwy 82 turn left on to Hwy 82 and travel 0.4 miles, turn left on Co Road 222 and travel 2.3 miles, turn right and travel 2.1 miles, turn right and travel 0.2 miles to site.					

Release Data:

Date Released:	8/2/2010
Type Release:	Produced Water
Source of Contamination:	Fill line of SWD tanks
Fluid Released:	50 bbls
Fluids Recovered:	0 bbls

Official Communication:

Name:	Pat Ellis	Ike Tavaréz
Company:	COG Operating, LLC	Tetra Tech
Address:	550 W. Texas Ave. Ste. 1300	1910 N. Big Spring
P.O. Box		
City:	Midland Texas, 79701	Midland, Texas
Phone number:	(432) 686-3023	(432) 682-4559
Fax:	(432) 684-7137	
Email:	pellis@conchoresources.com	ike.tavarez@tetrattech.com

Ranking Criteria:

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	0	0
Wellhead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0
Total Ranking Score:		0

Acceptable Soil RRAL (mg/kg)

Benzene	Total BTEX	TPH
10	50	5,000



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RECEIVED

FEB 28 2012

NMOCD ARTESIA

January 26, 2012

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

Re: Closure Report for the COG Operating LLC., Loco Hills SWD #35-1, Unit P, Section 36, Township 17 South, Range 30 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Loco Hills SWD #35-1 located in Unit P, Section 36, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.78548°, W 103.91982°. 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 August 2, 2010, and released approximately fifty (50) barrels of produced water from the 8" PVC slip joint. To alleviate the problem, COG personnel replaced the PVC fill line. Zero (0) barrels of standing fluids were recovered. The spill initiated inside of a lined facility and 1bbl of produced fluid was contained. The majority of fluids released outside the facility dike and migrated south in the pasture for a distance of approximately 330', with an average width of 3.0' wide and migrated into an area measuring approximately 135' x 190'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 36. According to the NMOCD groundwater map, the average depth to groundwater in this area appears to be greater than 300' below surface. The average depth to groundwater map is shown in Appendix A.

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



Regulatory

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

Soil Assessment and Analytical Results

On August 9, 2010, Tetra Tech personnel inspected and sampled the spill area. A total of eleven (11) auger holes (AH-1 through AH-11) 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. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix B. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, all the submitted samples were below RRAL for TPH and BTEX. The chloride impact was not vertically defined in the areas of AH-4, AH-5, AH-6, AH-7, AH-9, AH-10, and AH-11. The remaining auger holes were defined and showed a shallow impact to the soils.

On November 5, 2010, Tetra Tech personnel supervised the installation of a soil bores (SB-1 through SB-7) utilizing an air rotary drilling rig. The soil boring locations are shown in Figure 3. The area of AH-8 was not drilled due to access issues at the site. The soil borings were extended to a depth from 20' to 40' below surface, with samples collected at 2 to 3 foot intervals for the first 10 feet, 5 foot intervals to 30' and 10 foot intervals thereafter and submitted to the laboratory for chloride analysis. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1.

Referring to Table 1, all the soil borings installed were vertically defined. The soil borings (SB-1, SB-2, SB-3, SB-4, SB-6 and SB-7) did show a impact to the soil at depth ranging from 1.0' to 10.0' below surface. The



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deepest chloride impact was encountered in the area of SB-5, with elevated chloride concentrations greater than 5,000 extending down to 15.0' and declining to 264 mg/kg at 25.0' below surface.

Closure Activities

Based on the approved work plan, Tetra Tech personnel supervised the excavation of the site. The final excavation depths of the soil remediation were met as stated in the approved work plan. A total of 6,240 cubic yards of soil were excavated and hauled away for proper disposal. The excavation depths are highlighted in Table 1 and shown on Figure 4. Once excavated to the appropriate depths, the excavation was backfilled with clean soil to grade.

Based on the remedial activities performed, COG request closure of the site. A copy of the C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the remedial activities, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH



Ike Tavaréz
Project Manager

cc: Pat Ellis – COG

FIGURES

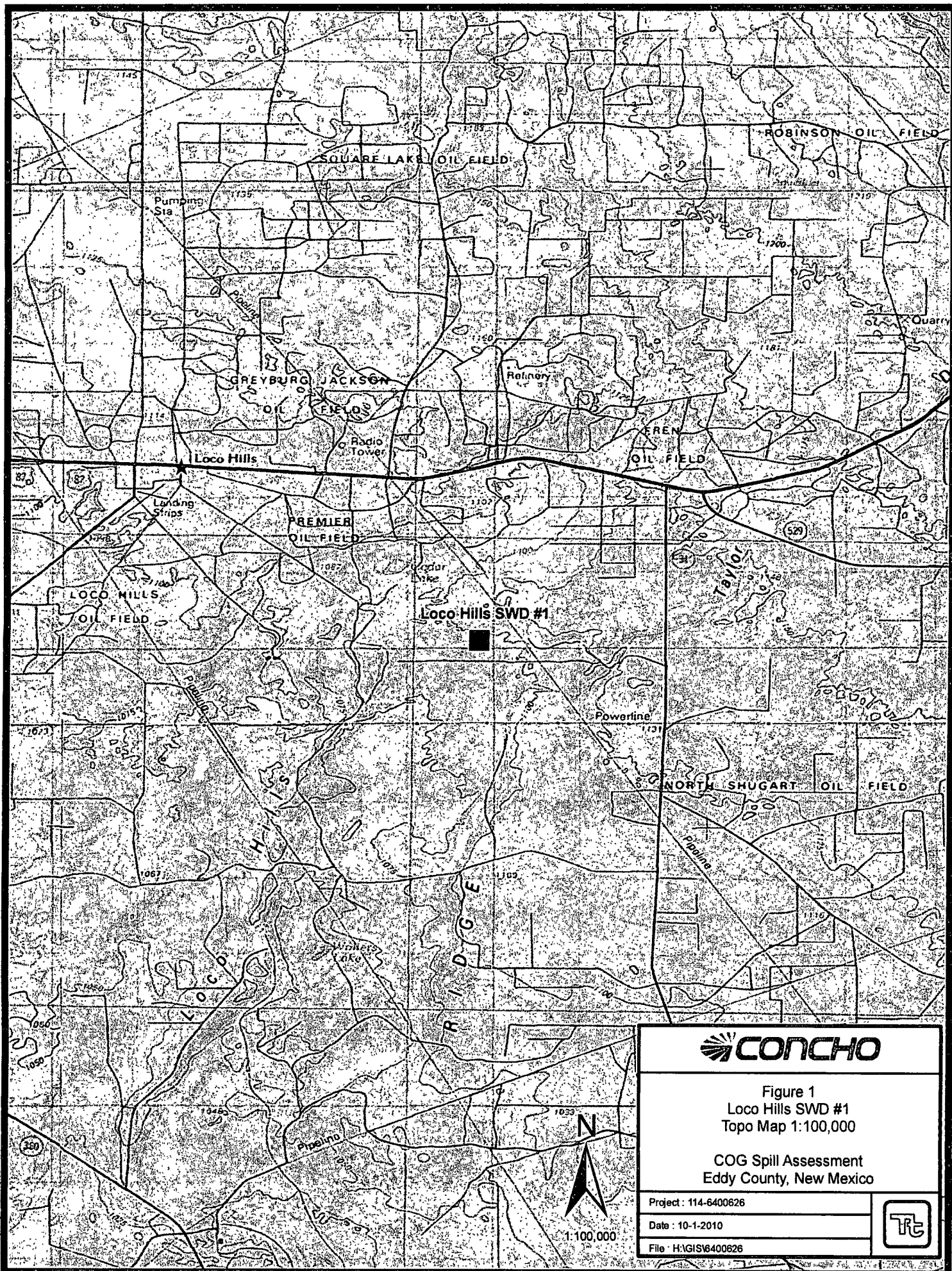


Figure 1
Loco Hills SWD #1
Topo Map 1:100,000

COG Spill Assessment
Eddy County, New Mexico

Project : 114-6400626

Date : 10-1-2010

File : H:\GIS\6400626



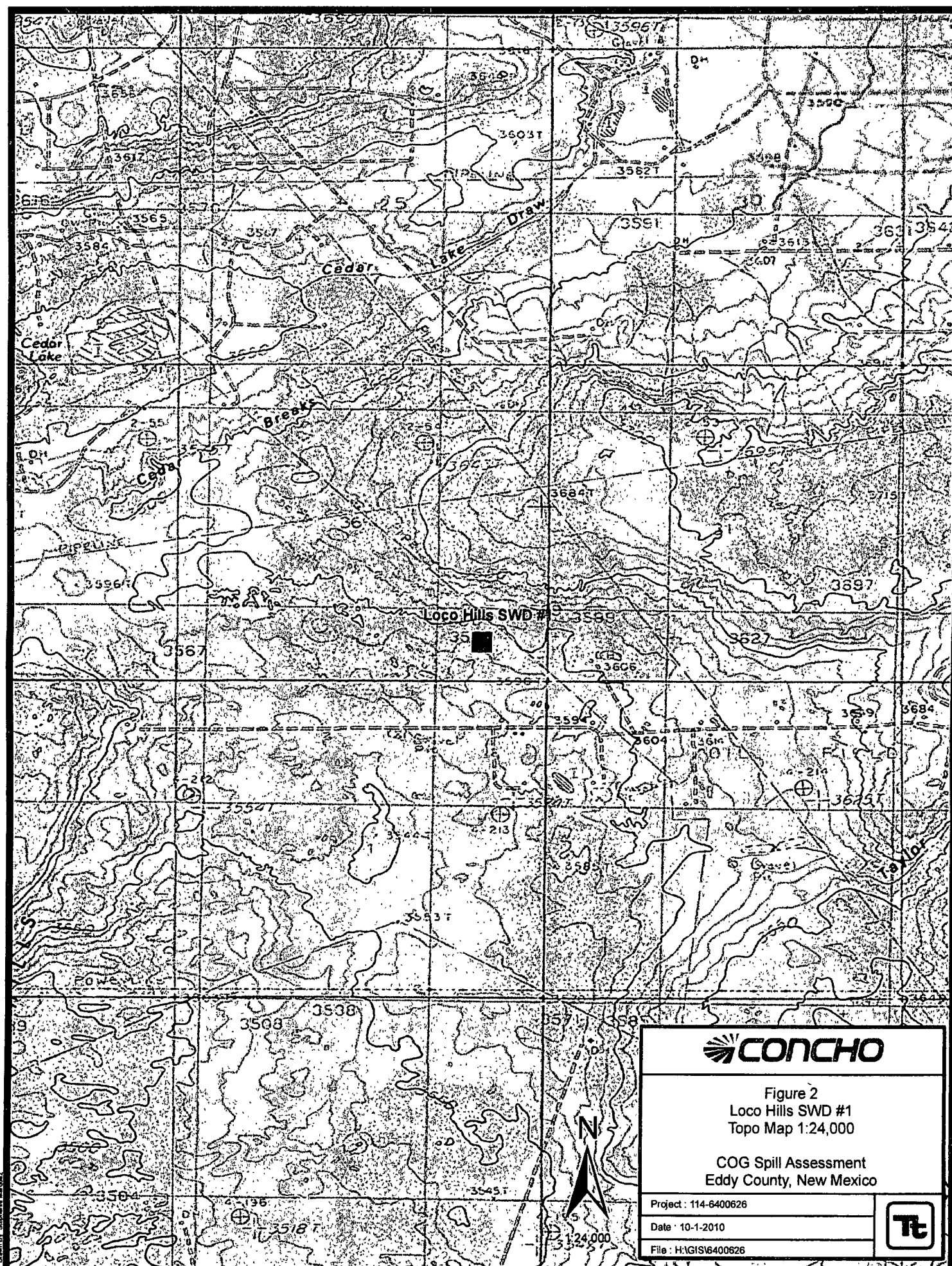


Figure 2
Loco Hills SWD #1
Topo Map 1:24,000

COG Spill Assessment
Eddy County, New Mexico

Project : 114-6400626

Date : 10-1-2010

File : H:\GIS\6400626



260'

Pipeline

SB-1

AH-11

SB-2

AH-10

SB-3

AH-9

AH-8

Over Head Lines
No Access

AH-7

SB-4

AH-6

SB-5

AH-5

SB-7

AH-3

SB-6

AH-4

AH-2

AH-1

135'

Electric Panel

Well

Loco Hills SWD #1
Site Pad

LEASE ROAD



1:1,000

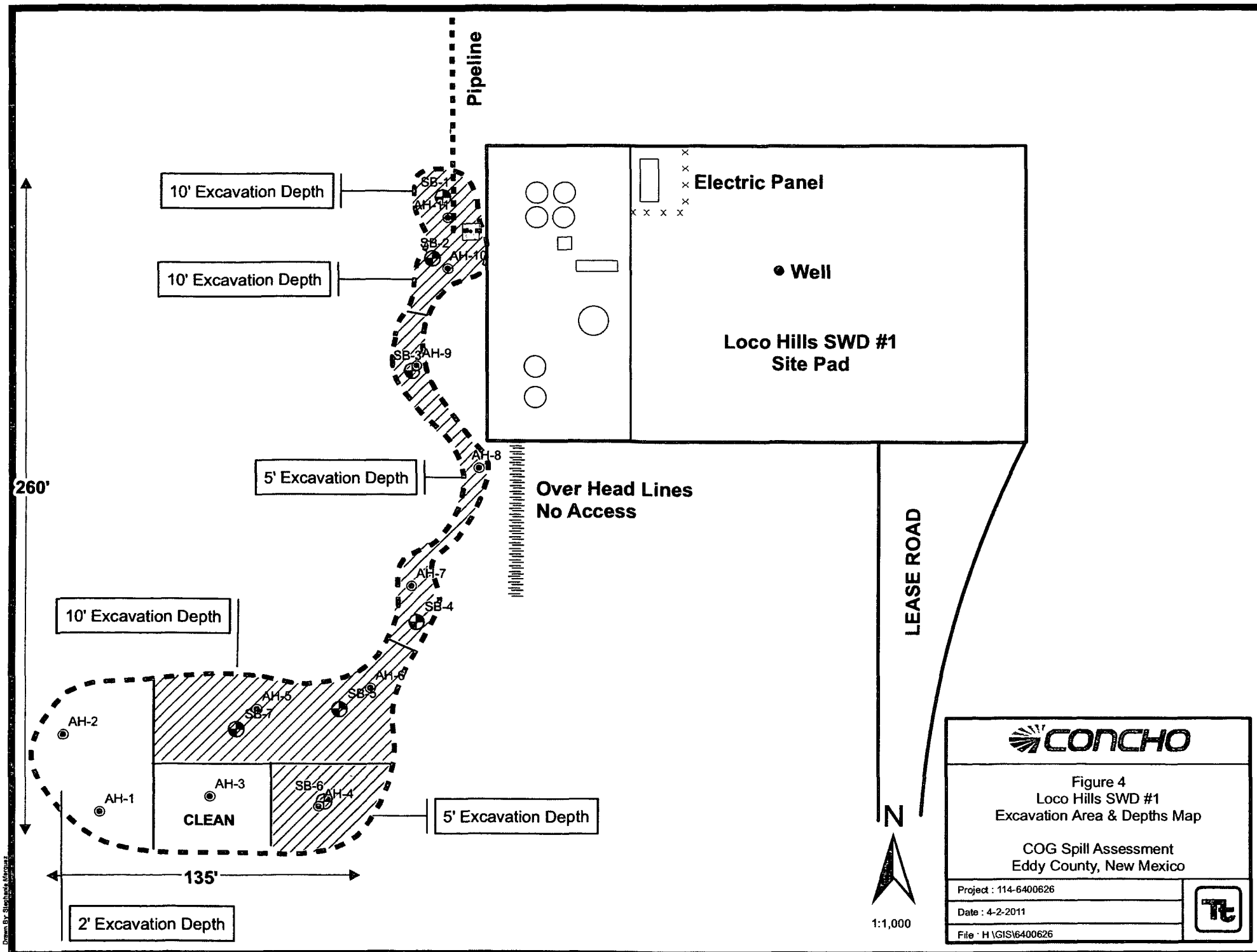


Figure 3
Loco Hills SWD #1
Spill Assessment Map

COG Spill Assessment
Eddy County, New Mexico

Project : 114-6400626
Date : 10-1-2010
File H:\GIS\6400626





TABLES

Table 1
COG Operating LLC.
LOCO HILLS SWD #35-1
EDDY COUNTY, NEW MEXICO

[illegible]

Table 1
COG Operating LLC.
LOCO HILLS SWD #35-1
EDDY COUNTY, NEW MEXICO

[illegible]

Table 1
COG Operating LLC.
LOCO HILLS SWD #35-1
EDDY COUNTY, NEW MEXICO

[illegible]

Table 1
COG Operating LLC.
LOCO HILLS SWD #35-1
EDDY COUNTY, NEW MEXICO

[illegible]

Table 1
COG Operating LLC.
LOCO HILLS SWD #35-1
EDDY COUNTY, NEW MEXICO

[illegible]

Table 1
COG Operating LLC.
LOCO HILLS SWD #35-1
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-9	8/9/2010	0-1'			X	<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	10,300
	"	1-1.5'			X	-	-	-	-	-	-	-	10,800
	"	1.5-2'			X	-	-	-	-	-	-	-	22,700
BH-3	10/5/2010	0-1'			X	-	-	-	-	-	-	-	<200
	"	3'			X	-	-	-	-	-	-	-	1,490
	"	5'			X	-	-	-	-	-	-	-	16,200
	"	7'		X		-	-	-	-	-	-	-	602
	"	10'		X		-	-	-	-	-	-	-	<200
AH-10	8/9/2010	0-1'			X	<2.00	<50.0	<50.0	-	-	-	-	7,830
	"	1-1.5'			X	-	-	-	-	-	-	-	8,630
	"	2-2.5'			X	-	-	-	-	-	-	-	8,610
BH-2	10/5/2010	0-1'			X	-	-	-	-	-	-	-	<200
	"	3'			X	-	-	-	-	-	-	-	2,950
	"	5'			X	-	-	-	-	-	-	-	16,200
	"	7'			X	-	-	-	-	-	-	-	8,150
	"	10'			X	-	-	-	-	-	-	-	7,810
	"	15'		X		-	-	-	-	-	-	-	1,240
	"	20'		X		-	-	-	-	-	-	-	697
	"	25'		X		-	-	-	-	-	-	-	464
	"	30'		X		-	-	-	-	-	-	-	409
	"	40'		X		-	-	-	-	-	-	-	202

Table 1
COG Operating LLC.
LOCO HILLS SWD #35-1
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-11	8/9/2010	0-1'			X	<2.00	<50.0	<50.0					9,190
	"	1-1.5'			X								6,140
	"	2-2.5'			X								5,940
	"	3-3.5'			X								7,930
	"	4-4.5'			X								9,820
	"	5-5.5'			X								22,800
	"	6-6.5'			X								24,200
	"	7-7.5'			X								10,400
	"	8-8.5'			X								8,460
BH-1	10/5/2010	0-1'			X								<200
	"	3'			X								<200
	"	5'			X								8,530
	"	7'			X								15,200
	"	10'			X								<200
	"	15'		X		-	-	-	-	-	-	-	497
	"	20'		X		-	-	-	-	-	-	-	<200
	"	25'		X		-	-	-	-	-	-	-	<200
	"	30'		X		-	-	-	-	-	-	-	<200

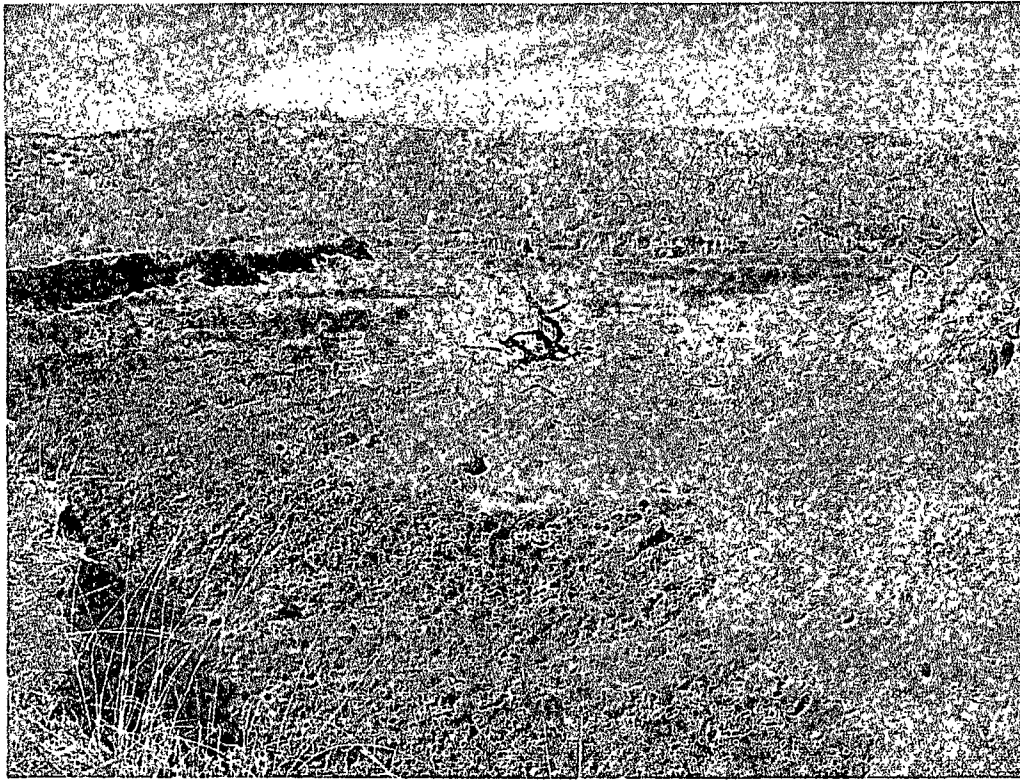
BEB Below Excavation Bottom

(--) Not Analyzed



Excavated Depths

PHOTOGRAPHS



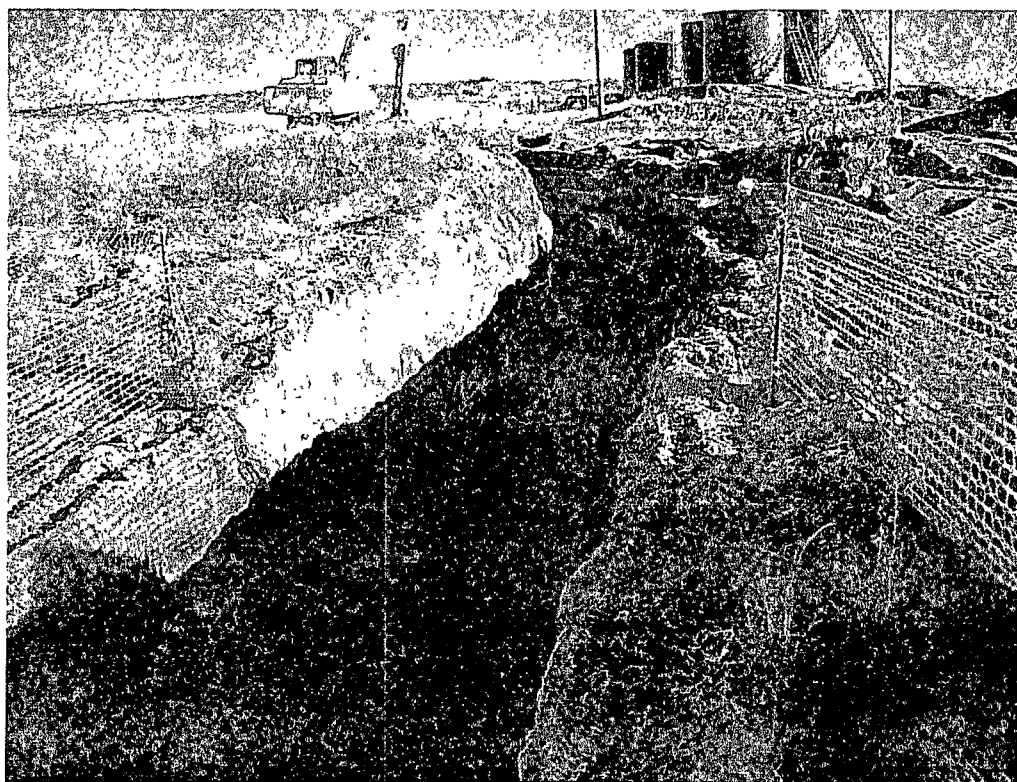
View West – AH-1 and 2



View North – SB-5 and 7



View North – SB-4



View North – SB-3

APPENDIX A

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

State of New Mexico
Energy Minerals and Natural Resources

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

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	COG Operating LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 1300 Midland, Texas 79701	Telephone No.	(432) 685-4332
Facility Name	Loco Hills SWD #35-1	Facility Type	SWD
Surface Owner: State	Mineral Owner	Lease No. (API#)	30-015-31635

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	36	17S	30E	660	South	860	East	Eddy

Latitude N 32.853001° Longitude W 103.959150°

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 50 bbls	Volume Recovered 0bbls
Source of Release: Fill line of SWD tanks	Date and Hour of Occurrence 8/2/2010	Date and Hour of Discovery 8/2/2010 2:30 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher-OCD	
By Whom? Josh Russo	Date and Hour 8/3/2010 3:04p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		

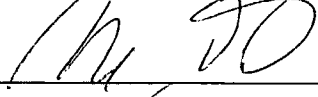
Describe Cause of Problem and Remedial Action Taken.*

8" PVC slip joint broke off the 8" inlet auto valve. All repairs on the PVC fill line have been made.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personal inspected the site and collected samples to define the spills extent. The areas that exceeded the RRAL were excavated to approximately 2.0-10.0' below surface. The impacted material was removed and hauled away for proper disposal. The site was then brought up to surface grade with clean backfill material. Tetra Tech has prepared a closure report and submitted it to the NMOCD for review.

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>OIL CONSERVATION DIVISION</u>		
Printed Name: Ike Tavarez (agent for COG)	Approved by District Supervisor:		
Title: Project Manager	Approval Date:	Expiration Date:	
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:		Attached ☐
Date: 1-26-12	Phone: (432) 682-4559		

Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Pecos Road, Artec. NM 87410
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1220 South St. Francis Dr.
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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	COG OPERATING LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Loco Hills SWD #35-1	Facility Type	SWD
Surface Owner	State	Mineral Owner	Lease No. (API#) 30-015-31635

LOCATION OF RELEASE

Unit Letter P	Section 36	Township 17S	Range 30E	Feet from the 660	North/South Line SOUTH	Feet from the 660	East/West Line EAST	County EDDY
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Latitude 32 47.132 Longitude 103 55.209

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	50bbls	Volume Recovered	0bbls
Source of Release	Fill line of SWD tanks	Date and Hour of Occurrence	08/02/2010	Date and Hour of Discovery	08/02/2010 2:30 p.m.
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher—OCF		
By Whom?	Josh Russo	Date and Hour	08/03/2010	3:04 p.m.	
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.*

8" PVC slip joint broke off of the 8" inlet into valve. All repairs on the PVC fill line have been made.

Describe Area Affected and Cleanup Action Taken.*

Initially 50bbls of produced water was released from the fill line at the SWD tanks. 1bbl of the produced water was contained inside the lined facility walls. The contaminated gravel was removed and replaced with clean gravel. The other 49bbls were released outside of the dike wall and ran west of dike and off location with a total spill area of 3 yards x 150 yards. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCDD for approval prior to any significant remediation work.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCDD 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 NMOCDD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to ground water, surface water, human health or the environment. In addition, NMOCDD 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:			
Printed Name:	Josh Russo		
Title:	HSE Coordinator		
E-mail Address:	jrusso@conchoresources.com		
Date:	08/11/2010	Phone:	432-212-2399
Attach Additional Sheets if Necessary			
OIL CONSERVATION DIVISION		Approved by District Supervisor:	
		Approval Date:	Expiration Date:
Conditions of Approval:		Attached ☐	

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - Loco Hills SWD #35-1
Eddy County, New Mexico

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

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

16 South			31 East		
6	5	4	3	2	
7	8	9	10	11	
18	17	16	15	14	
19	20	21	22	23	
30	29	28	27	26	
290	31	32	33	34	35

17 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	80	23
30	29	210	28	27	26
31	32	208'	33	34	35
				153	36

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

17 South			31 East		
6	5	4	3	2	
7	8	9	10	11	
18	17	16	15	14	
19	20	21	22	23	
30	29	28	27	26	
31	32	33	34	35	
					271

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

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

18 South			31 East		
6	5	4	3	2	
7	8	9	10	11	
18	17	16	15	14	
19	20	21	22	23	
30	29	28	27	26	
31	32	33	34	35	
					261

-  New Mexico State Engineers Well Reports
-  USGS Well Reports
-  Geology and Groundwater Conditions in Southern Eddy, County, NM
-  NMOCD - Groundwater Data

Summary Report

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

Report Date: August 25, 2010

Work Order: 10081702



Project Location: Eddy County, NM
Project Name: COG/Loco Hills SWD #1
Project Number: 114-6400626

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
241383	AH-1 0-1'	soil	2010-08-09	00:00	2010-08-13
241384	AH-1 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241385	AH-1 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241386	AH-1 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241387	AH-1 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241388	AH-2 0-1'	soil	2010-08-09	00:00	2010-08-13
241389	AH-2 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241390	AH-2 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241391	AH-2 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241392	AH-2 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241393	AH-3 0-1'	soil	2010-08-09	00:00	2010-08-13
241394	AH-3 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241395	AH-3 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241396	AH-3 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241397	AH-3 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241398	AH-4 0-1'	soil	2010-08-09	00:00	2010-08-13
241399	AH-4 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241400	AH-4 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241401	AH-4 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241402	AH-4 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241403	AH-4 5-5.5'	soil	2010-08-09	00:00	2010-08-13
241404	AH-4 6-6.5'	soil	2010-08-09	00:00	2010-08-13
241405	AH-4 7-7.5'	soil	2010-08-09	00:00	2010-08-13
241406	AH-4 7.5-8'	soil	2010-08-09	00:00	2010-08-13
241407	AH-5 0-1'	soil	2010-08-09	00:00	2010-08-13
241408	AH-5 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241409	AH-5 1.5-2'	soil	2010-08-09	00:00	2010-08-13
241410	AH-6 0-1'	soil	2010-08-09	00:00	2010-08-13
241411	AH-6 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241412	AH-6 2-2.5'	soil	2010-08-09	00:00	2010-08-13

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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
241413	AH-6 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241414	AH-7 0-1'	soil	2010-08-09	00:00	2010-08-13
241415	AH-7 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241416	AH-7 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241417	AH-8 0-1'	soil	2010-08-09	00:00	2010-08-13
241418	AH-8 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241419	AH-8 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241420	AH-8 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241421	AH-8 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241422	AH-9 0-1'	soil	2010-08-09	00:00	2010-08-13
241423	AH-9 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241424	AH-9 1.5-2'	soil	2010-08-09	00:00	2010-08-13
241425	AH-10 0-1'	soil	2010-08-09	00:00	2010-08-13
241426	AH-10 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241427	AH-10 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241428	AH-11 0-1'	soil	2010-08-09	00:00	2010-08-13
241429	AH-11 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241430	AH-11 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241431	AH-11 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241432	AH-11 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241433	AH-11 5-5.5'	soil	2010-08-09	00:00	2010-08-13
241434	AH-11 6-6.5'	soil	2010-08-09	00:00	2010-08-13
241435	AH-11 7-7.5'	soil	2010-08-09	00:00	2010-08-13
241436	AH-11 8-8.5'	soil	2010-08-09	00:00	2010-08-13

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
241383 - AH-1 0-1'					<50.0	<2.00
241388 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241393 - AH-3 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241398 - AH-4 0-1'					<50.0	<2.00
241407 - AH-5 0-1'					<50.0	<2.00
241410 - AH-6 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241414 - AH-7 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241417 - AH-8 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241422 - AH-9 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241425 - AH-10 0-1'					<50.0	<2.00
241428 - AH-11 0-1'					<50.0	<2.00

Sample: 241383 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		5100	mg/Kg	4.00

Sample: 241384 - AH-1 1-1.5'

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

Param	Flag	Result	Units	RL
Chloride		2830	mg/Kg	4.00

Sample: 241385 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241386 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241387 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241388 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		8070	mg/Kg	4.00

Sample: 241389 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		4030	mg/Kg	4.00

Sample: 241390 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		398	mg/Kg	4.00

Sample: 241391 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241392 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241393 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241394 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241395 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241396 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		394	mg/Kg	4.00

Sample: 241397 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 241398 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		9370	mg/Kg	4.00

Sample: 241399 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		10300	mg/Kg	4.00

Sample: 241400 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		12200	mg/Kg	4.00

Sample: 241401 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		16800	mg/Kg	4.00

Sample: 241402 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		19900	mg/Kg	4.00

Sample: 241403 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		5840	mg/Kg	4.00

Sample: 241404 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		553	mg/Kg	4.00

Sample: 241405 - AH-4 7-7.5'

Param	Flag	Result	Units	RL
Chloride		207	mg/Kg	4.00

Sample: 241406 - AH-4 7.5-8'

Param	Flag	Result	Units	RL
Chloride		1600	mg/Kg	4.00

Sample: 241407 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		7930	mg/Kg	4.00

Sample: 241408 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		9580	mg/Kg	4.00

Sample: 241409 - AH-5 1.5-2'

Param	Flag	Result	Units	RL
Chloride		14300	mg/Kg	4.00

Sample: 241410 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		8810	mg/Kg	4.00

Sample: 241411 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		9980	mg/Kg	4.00

Sample: 241412 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		5630	mg/Kg	4.00

Sample: 241413 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		14800	mg/Kg	4.00

Sample: 241414 - AH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		18400	mg/Kg	4.00

Sample: 241415 - AH-7 1-1.5'

Param	Flag	Result	Units	RL
Chloride		18700	mg/Kg	4.00

Sample: 241416 - AH-7 2-2.5'

Param	Flag	Result	Units	RL
Chloride		19900	mg/Kg	4.00

Sample: 241417 - AH-8 0-1'

Param	Flag	Result	Units	RL
Chloride		11500	mg/Kg	4.00

Sample: 241418 - AH-8 1-1.5'

Param	Flag	Result	Units	RL
Chloride		10800	mg/Kg	4.00

Sample: 241419 - AH-8 2-2.5'

Param	Flag	Result	Units	RL
Chloride		20600	mg/Kg	4.00

Sample: 241420 - AH-8 3-3.5'

Param	Flag	Result	Units	RL
Chloride		18200	mg/Kg	4.00

Sample: 241421 - AH-8 4-4.5.'

Param	Flag	Result	Units	RL
Chloride		3330	mg/Kg	4.00

Sample: 241422 - AH-9 0-1'

Param	Flag	Result	Units	RL
Chloride		10300	mg/Kg	4.00

Sample: 241423 - AH-9 1-1.5'

Param	Flag	Result	Units	RL
Chloride		10800	mg/Kg	4.00

Sample: 241424 - AH-9 1.5-2'

Param	Flag	Result	Units	RL
Chloride		22700	mg/Kg	4.00

Sample: 241425 - AH-10 0-1'

Param	Flag	Result	Units	RL
Chloride		7830	mg/Kg	4.00

Sample: 241426 - AH-10 1-1.5'

Param	Flag	Result	Units	RL
Chloride		8630	mg/Kg	4.00

Sample: 241427 - AH-10 2-2.5'

Param	Flag	Result	Units	RL
Chloride		8610	mg/Kg	4.00

Sample: 241428 - AH-11 0-1'

Param	Flag	Result	Units	RL
Chloride		9190	mg/Kg	4.00

Sample: 241429 - AH-11 1-1.5'

Param	Flag	Result	Units	RL
Chloride		6140	mg/Kg	4.00

Sample: 241430 - AH-11 2-2.5'

Param	Flag	Result	Units	RL
Chloride		5940	mg/Kg	4.00

Sample: 241431 - AH-11 3-3.5'

Param	Flag	Result	Units	RL
Chloride		7930	mg/Kg	4.00

Sample: 241432 - AH-11 4-4.5'

Param	Flag	Result	Units	RL
Chloride		9820	mg/Kg	4.00

Sample: 241433 - AH-11 5-5.5'

Param	Flag	Result	Units	RL
Chloride		22800	mg/Kg	4.00

Sample: 241434 - AH-11 6-6.5'

Param	Flag	Result	Units	RL
Chloride		24200	mg/Kg	4.00

Sample: 241435 - AH-11 7-7.5'

Param	Flag	Result	Units	RL
Chloride		10400	mg/Kg	4.00

Sample: 241436 - AH-11 8-8.5'

Param	Flag	Result	Units	RL
Chloride		8460	mg/Kg	4.00

APPENDIX C

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

Report Date: August 25, 2010

Work Order: 10081702



Project Location: Eddy County, NM
Project Name: COG/Loco Hills SWD #1
Project Number: 114-6400626

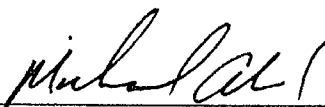
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
241383	AH-1 0-1'	soil	2010-08-09	00:00	2010-08-13
241384	AH-1 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241385	AH-1 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241386	AH-1 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241387	AH-1 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241388	AH-2 0-1'	soil	2010-08-09	00:00	2010-08-13
241389	AH-2 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241390	AH-2 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241391	AH-2 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241392	AH-2 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241393	AH-3 0-1'	soil	2010-08-09	00:00	2010-08-13
241394	AH-3 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241395	AH-3 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241396	AH-3 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241397	AH-3 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241398	AH-4 0-1'	soil	2010-08-09	00:00	2010-08-13
241399	AH-4 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241400	AH-4 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241401	AH-4 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241402	AH-4 4-4.5'	soil	2010-08-09	00:00	2010-08-13

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
241403	AH-4 5-5.5'	soil	2010-08-09	00:00	2010-08-13
241404	AH-4 6-6.5'	soil	2010-08-09	00:00	2010-08-13
241405	AH-4 7-7.5'	soil	2010-08-09	00:00	2010-08-13
241406	AH-4 7.5-8'	soil	2010-08-09	00:00	2010-08-13
241407	AH-5 0-1'	soil	2010-08-09	00:00	2010-08-13
241408	AH-5 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241409	AH-5 1.5-2'	soil	2010-08-09	00:00	2010-08-13
241410	AH-6 0-1'	soil	2010-08-09	00:00	2010-08-13
241411	AH-6 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241412	AH-6 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241413	AH-6 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241414	AH-7 0-1'	soil	2010-08-09	00:00	2010-08-13
241415	AH-7 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241416	AH-7 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241417	AH-8 0-1'	soil	2010-08-09	00:00	2010-08-13
241418	AH-8 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241419	AH-8 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241420	AH-8 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241421	AH-8 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241422	AH-9 0-1'	soil	2010-08-09	00:00	2010-08-13
241423	AH-9 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241424	AH-9 1.5-2'	soil	2010-08-09	00:00	2010-08-13
241425	AH-10 0-1'	soil	2010-08-09	00:00	2010-08-13
241426	AH-10 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241427	AH-10 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241428	AH-11 0-1'	soil	2010-08-09	00:00	2010-08-13
241429	AH-11 1-1.5'	soil	2010-08-09	00:00	2010-08-13
241430	AH-11 2-2.5'	soil	2010-08-09	00:00	2010-08-13
241431	AH-11 3-3.5'	soil	2010-08-09	00:00	2010-08-13
241432	AH-11 4-4.5'	soil	2010-08-09	00:00	2010-08-13
241433	AH-11 5-5.5'	soil	2010-08-09	00:00	2010-08-13
241434	AH-11 6-6.5'	soil	2010-08-09	00:00	2010-08-13
241435	AH-11 7-7.5'	soil	2010-08-09	00:00	2010-08-13
241436	AH-11 8-8.5'	soil	2010-08-09	00:00	2010-08-13

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

This report consists of a total of 45 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.


 Dr. Blair Leftwich, Director
 Dr. Michael Abel, Project Manager

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

Case Narrative

Samples for project COG/Loco Hills SWD #1 were received by TraceAnalysis, Inc. on 2010-08-13 and assigned to work order 10081702. Samples for work order 10081702 were received intact at a temperature of 18.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	62422	2010-08-20 at 12:00	72835	2010-08-21 at 17:17
Chloride (Titration)	SM 4500-Cl B	62375	2010-08-19 at 08:53	72752	2010-08-19 at 15:57
Chloride (Titration)	SM 4500-Cl B	62376	2010-08-19 at 08:53	72753	2010-08-19 at 15:58
Chloride (Titration)	SM 4500-Cl B	62377	2010-08-19 at 08:54	72754	2010-08-19 at 15:59
Chloride (Titration)	SM 4500-Cl B	62379	2010-08-19 at 08:54	72755	2010-08-19 at 16:00
Chloride (Titration)	SM 4500-Cl B	62380	2010-08-19 at 08:55	72831	2010-08-23 at 14:42
Chloride (Titration)	SM 4500-Cl B	62441	2010-08-23 at 09:03	72832	2010-08-23 at 14:43
TPH DRO - NEW	S 8015 D	62398	2010-08-19 at 10:46	72775	2010-08-19 at 10:46
TPH DRO - NEW	S 8015 D	62428	2010-08-20 at 13:56	72812	2010-08-20 at 13:56
TPH GRO	S 8015 D	62422	2010-08-20 at 12:00	72808	2010-08-21 at 17:46
TPH GRO	S 8015 D	62423	2010-08-21 at 17:00	72815	2010-08-22 at 11:05

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 10081702 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.

Samples were received on ice.

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 25, 2010
114-6400626

Work Order: 10081702
COG/LoCo Hills SWD #1

Page Number: 5 of 45
Eddy County, NM

Analytical Report

Sample: 241383 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72752	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62375				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5100	mg/Kg	100	4.00

Sample: 241383 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-08-19	Analyzed By:	kg
QC Batch:	72775	Sample Preparation:	2010-08-19	Prepared By:	kg
Prep Batch:	62398				

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-Tricosane		103	mg/Kg	1	100	103	70 - 130

Sample: 241383 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-08-21	Analyzed By:	AG
QC Batch:	72808	Sample Preparation:	2010-08-20	Prepared By:	AG
Prep Batch:	62422				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.10	mg/Kg	1	2.00	55	48.5 - 152
4-Bromofluorobenzene (4-BFB)		0.847	mg/Kg	1	2.00	42	42 - 159

Report Date: August 25, 2010
114-6400626

Work Order: 10081702
COG/Loco Hills SWD #1

Page Number: 6 of 45
Eddy County, NM

Sample: 241384 - AH-1 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72752	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62375				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2830	mg/Kg	100	4.00

Sample: 241385 - AH-1 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72752	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62375				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 241386 - AH-1 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72752	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62375				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 241387 - AH-1 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72752	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62375				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

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Sample: 241388 - AH-2 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 72835
Prep Batch: 62422

Analytical Method: S 8021B
Date Analyzed: 2010-08-21
Sample Preparation: 2010-08-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.64	mg/Kg	1	2.00	82	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.45	mg/Kg	1	2.00	72	38.4 - 157

Sample: 241388 - AH-2 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 72752
Prep Batch: 62375

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-08-19
Sample Preparation: 2010-08-19

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8070	mg/Kg	100	4.00

Sample: 241388 - AH-2 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 72775
Prep Batch: 62398

Analytical Method: S 8015 D
Date Analyzed: 2010-08-19
Sample Preparation: 2010-08-19

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

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-Tricosane		107	mg/Kg	1	100	107	70 - 130

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Sample: 241388 - AH-2 0-1'

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015 D
QC Batch:	72808	Date Analyzed:	2010-08-21
Prep Batch:	62422	Sample Preparation:	2010-08-20
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.81	mg/Kg	1	2.00	90	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.54	mg/Kg	1	2.00	77	42 - 159

Sample: 241389 - AH-2 1-1.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	72752	Date Analyzed:	2010-08-19
Prep Batch:	62375	Sample Preparation:	2010-08-19
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4030	mg/Kg	100	4.00

Sample: 241390 - AH-2 2-2.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	72752	Date Analyzed:	2010-08-19
Prep Batch:	62375	Sample Preparation:	2010-08-19
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		398	mg/Kg	50	4.00

Sample: 241391 - AH-2 3-3.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	72753	Date Analyzed:	2010-08-19
Prep Batch:	62376	Sample Preparation:	2010-08-19
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 241392 - AH-2 4-4.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72753

Prep Batch: 62376

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-19

Sample Preparation: 2010-08-19

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 241393 - AH-3 0-1'

Laboratory: Midland

Analysis: BTEX

QC Batch: 72835

Prep Batch: 62422

Analytical Method: S 8021B

Date Analyzed: 2010-08-21

Sample Preparation: 2010-08-20

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	38.4 - 157

Sample: 241393 - AH-3 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72753

Prep Batch: 62376

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-19

Sample Preparation: 2010-08-19

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

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Sample: 241393 - AH-3 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-08-19	Analyzed By:	kg
QC Batch:	72775	Sample Preparation:	2010-08-19	Prepared By:	kg
Prep Batch:	62398				

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-Tricosane		105	mg/Kg	1	100	105	70 - 130

Sample: 241393 - AH-3 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-08-21	Analyzed By:	AG
QC Batch:	72808	Sample Preparation:	2010-08-20	Prepared By:	AG
Prep Batch:	62422				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.05	mg/Kg	1	2.00	102	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.75	mg/Kg	1	2.00	88	42 - 159

Sample: 241394 - AH-3 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72753	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62376				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

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Sample: 241395 - AH-3 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72753	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62376				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 241396 - AH-3 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72753	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62376				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		394	mg/Kg	50	4.00

Sample: 241397 - AH-3 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72753	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62376				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 241398 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72753	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62376				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9370	mg/Kg	100	4.00

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Sample: 241398 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-08-19	Analyzed By:	kg
QC Batch:	72775	Sample Preparation:	2010-08-19	Prepared By:	kg
Prep Batch:	62398				

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-Tricosane		130	mg/Kg	1	100	130	70 - 130

Sample: 241398 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-08-21	Analyzed By:	AG
QC Batch:	72808	Sample Preparation:	2010-08-20	Prepared By:	AG
Prep Batch:	62422				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.06	mg/Kg	1	2.00	53	48.5 - 152
4-Bromofluorobenzene (4-BFB)		0.917	mg/Kg	1	2.00	46	42 - 159

Sample: 241399 - AH-4 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72753	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62376				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10300	mg/Kg	100	4.00

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Sample: 241400 - AH-4 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72753	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62376				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		12200	mg/Kg	100	4.00

Sample: 241401 - AH-4 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72754	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62377				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		16800	mg/Kg	100	4.00

Sample: 241402 - AH-4 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72754	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62377				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		19900	mg/Kg	100	4.00

Sample: 241403 - AH-4 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72754	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62377				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5840	mg/Kg	100	4.00

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Sample: 241404 - AH-4 6-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72754	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62377				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		553	mg/Kg	50	4.00

Sample: 241405 - AH-4 7-7.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72754	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62377				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		207	mg/Kg	50	4.00

Sample: 241406 - AH-4 7.5-8'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72754	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62377				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1600	mg/Kg	100	4.00

Sample: 241407 - AH-5 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72754	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62377				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7930	mg/Kg	100	4.00

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Sample: 241407 - AH-5 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-08-19	Analyzed By:	kg
QC Batch:	72775	Sample Preparation:	2010-08-19	Prepared By:	kg
Prep Batch:	62398				

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-Tricosane		106	mg/Kg	1	100	106	70 - 130

Sample: 241407 - AH-5 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-08-21	Analyzed By:	AG
QC Batch:	72808	Sample Preparation:	2010-08-20	Prepared By:	AG
Prep Batch:	62422				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	1	2.00	50	48.5 - 152
4-Bromofluorobenzene (4-BFB)		0.834	mg/Kg	1	2.00	42	42 - 159

Sample: 241408 - AH-5 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72754	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62377				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9580	mg/Kg	100	4.00

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Sample: 241409 - AH-5 1.5-2'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72754

Prep Batch: 62377

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-19

Sample Preparation: 2010-08-19

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14300	mg/Kg	100	4.00

Sample: 241410 - AH-6 0-1'

Laboratory: Midland

Analysis: BTEX

QC Batch: 72835

Prep Batch: 62422

Analytical Method: S 8021B

Date Analyzed: 2010-08-21

Sample Preparation: 2010-08-20

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.01	mg/Kg	1	2.00	100	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	38.4 - 157

Sample: 241410 - AH-6 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72754

Prep Batch: 62377

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-19

Sample Preparation: 2010-08-19

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8810	mg/Kg	100	4.00

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Sample: 241410 - AH-6 0-1'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 72775

Prep Batch: 62398

Analytical Method: S 8015 D

Date Analyzed: 2010-08-19

Sample Preparation: 2010-08-19

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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-Tricosane		105	mg/Kg	1	100	105	70 - 130

Sample: 241410 - AH-6 0-1'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 72808

Prep Batch: 62422

Analytical Method: S 8015 D

Date Analyzed: 2010-08-21

Sample Preparation: 2010-08-20

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.21	mg/Kg	1	2.00	110	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.87	mg/Kg	1	2.00	94	42 - 159

Sample: 241411 - AH-6 1-1.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72755

Prep Batch: 62379

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-19

Sample Preparation: 2010-08-19

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9980	mg/Kg	100	4.00

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Sample: 241412 - AH-6 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72755	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62379				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5630	mg/Kg	100	4.00

Sample: 241413 - AH-6 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72755	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62379				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14800	mg/Kg	100	4.00

Sample: 241414 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-08-21	Analyzed By:	AG
QC Batch:	72835	Sample Preparation:	2010-08-20	Prepared By:	AG
Prep Batch:	62422				

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.55	mg/Kg	1	2.00	78	52.8 - 137
4-Bromofluorobenzene (4BFB)		1.34	mg/Kg	1	2.00	67	38.4 - 157

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Sample: 241414 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72755	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62379				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		18400	mg/Kg	100	4.00

Sample: 241414 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-08-19	Analyzed By:	kg
QC Batch:	72775	Sample Preparation:	2010-08-19	Prepared By:	kg
Prep Batch:	62398				

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-Tricosane		100	mg/Kg	1	100	100	70 - 130

Sample: 241414 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-08-21	Analyzed By:	AG
QC Batch:	72808	Sample Preparation:	2010-08-20	Prepared By:	AG
Prep Batch:	62422				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.71	mg/Kg	1	2.00	86	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.43	mg/Kg	1	2.00	72	42 - 159

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Sample: 241415 - AH-7 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72755	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62379				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		18700	mg/Kg	100	4.00

Sample: 241416 - AH-7 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72755	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62379				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		19900	mg/Kg	100	4.00

Sample: 241417 - AH-8 0-1'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-08-21	Analyzed By:	AG
QC Batch:	72835	Sample Preparation:	2010-08-20	Prepared By:	AG
Prep Batch:	62422				

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.25	mg/Kg	1	2.00	62	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	2.00	55	38.4 - 157

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Sample: 241417 - AH-8 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72755

Prep Batch: 62379

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-19

Sample Preparation: 2010-08-19

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		11500	mg/Kg	100	4.00

Sample: 241417 - AH-8 0-1'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 72775

Prep Batch: 62398

Analytical Method: S 8015 D

Date Analyzed: 2010-08-19

Sample Preparation: 2010-08-19

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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-Tricosane		102	mg/Kg	1	100	102	70 - 130

Sample: 241417 - AH-8 0-1'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 72808

Prep Batch: 62422

Analytical Method: S 8015 D

Date Analyzed: 2010-08-21

Sample Preparation: 2010-08-20

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.40	mg/Kg	1	2.00	70	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.18	mg/Kg	1	2.00	59	42 - 159

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Sample: 241418 - AH-8 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72755	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62379				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10800	mg/Kg	100	4.00

Sample: 241419 - AH-8 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72755	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62379				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		20600	mg/Kg	100	4.00

Sample: 241420 - AH-8 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-19	Analyzed By:	AR
QC Batch:	72755	Sample Preparation:	2010-08-19	Prepared By:	AR
Prep Batch:	62379				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		18200	mg/Kg	100	4.00

Sample: 241421 - AH-8 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-23	Analyzed By:	AR
QC Batch:	72831	Sample Preparation:	2010-08-23	Prepared By:	AR
Prep Batch:	62380				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3330	mg/Kg	100	4.00

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Sample: 241422 - AH-9 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 72835
Prep Batch: 62422

Analytical Method: S 8021B
Date Analyzed: 2010-08-21
Sample Preparation: 2010-08-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.43	mg/Kg	1	2.00	72	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.24	mg/Kg	1	2.00	62	38.4 - 157

Sample: 241422 - AH-9 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 72831
Prep Batch: 62380

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-08-23
Sample Preparation: 2010-08-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10300	mg/Kg	100	4.00

Sample: 241422 - AH-9 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 72812
Prep Batch: 62428

Analytical Method: S 8015 D
Date Analyzed: 2010-08-20
Sample Preparation: 2010-08-20

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

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-Tricosane		105	mg/Kg	1	100	105	70 - 130

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Sample: 241422 - AH-9 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-08-21	Analyzed By:	AG
QC Batch:	72808	Sample Preparation:	2010-08-20	Prepared By:	AG
Prep Batch:	62422				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.59	mg/Kg	1	2.00	80	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	1	2.00	66	42 - 159

Sample: 241423 - AH-9 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-23	Analyzed By:	AR
QC Batch:	72831	Sample Preparation:	2010-08-23	Prepared By:	AR
Prep Batch:	62380				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10800	mg/Kg	100	4.00

Sample: 241424 - AH-9 1.5-2'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-23	Analyzed By:	AR
QC Batch:	72831	Sample Preparation:	2010-08-23	Prepared By:	AR
Prep Batch:	62380				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		22700	mg/Kg	100	4.00

Sample: 241425 - AH-10 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-23	Analyzed By:	AR
QC Batch:	72831	Sample Preparation:	2010-08-23	Prepared By:	AR
Prep Batch:	62380				

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Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7830	mg/Kg	100	4.00

Sample: 241425 - AH-10 0-1'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 72812

Prep Batch: 62428

Analytical Method: S 8015 D

Date Analyzed: 2010-08-20

Sample Preparation: 2010-08-20

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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-Tricosane		102	mg/Kg	1	100	102	70 - 130

Sample: 241425 - AH-10 0-1'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 72815

Prep Batch: 62423

Analytical Method: S 8015 D

Date Analyzed: 2010-08-22

Sample Preparation: 2010-08-21

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.66	mg/Kg	1	2.00	83	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.39	mg/Kg	1	2.00	70	42 - 159

Sample: 241426 - AH-10 1-1.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72831

Prep Batch: 62380

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-23

Sample Preparation: 2010-08-23

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

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sample 241426 continued ..

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8630	mg/Kg	100	4.00

Sample: 241427 - AH-10 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 72831 Date Analyzed: 2010-08-23 Analyzed By: AR
Prep Batch: 62380 Sample Preparation: 2010-08-23 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8610	mg/Kg	100	4.00

Sample: 241428 - AH-11 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 72831 Date Analyzed: 2010-08-23 Analyzed By: AR
Prep Batch: 62380 Sample Preparation: 2010-08-23 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9190	mg/Kg	100	4.00

Sample: 241428 - AH-11 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 72812 Date Analyzed: 2010-08-20 Analyzed By: kg
Prep Batch: 62428 Sample Preparation: 2010-08-20 Prepared By: kg

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		102	mg/Kg	1	100	102	70 - 130

Sample: 241428 - AH-11 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 72815
Prep Batch: 62423

Analytical Method: S 8015 D
Date Analyzed: 2010-08-22
Sample Preparation: 2010-08-21

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.15	mg/Kg	1	2.00	108	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.79	mg/Kg	1	2.00	90	42 - 159

Sample: 241429 - AH-11 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 72831
Prep Batch: 62380

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-08-23
Sample Preparation: 2010-08-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6140	mg/Kg	100	4.00

Sample: 241430 - AH-11 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 72831
Prep Batch: 62380

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-08-23
Sample Preparation: 2010-08-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5940	mg/Kg	100	4.00

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Sample: 241431 - AH-11 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-23	Analyzed By:	AR
QC Batch:	72832	Sample Preparation:	2010-08-23	Prepared By:	AR
Prep Batch:	62441				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7930	mg/Kg	100	4.00

Sample: 241432 - AH-11 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-23	Analyzed By:	AR
QC Batch:	72832	Sample Preparation:	2010-08-23	Prepared By:	AR
Prep Batch:	62441				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9820	mg/Kg	100	4.00

Sample: 241433 - AH-11 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-23	Analyzed By:	AR
QC Batch:	72832	Sample Preparation:	2010-08-23	Prepared By:	AR
Prep Batch:	62441				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		22800	mg/Kg	100	4.00

Sample: 241434 - AH-11 6-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-08-23	Analyzed By:	AR
QC Batch:	72832	Sample Preparation:	2010-08-23	Prepared By:	AR
Prep Batch:	62441				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		24200	mg/Kg	100	4.00

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Sample: 241435 - AH-11 7-7.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72832

Prep Batch: 62441

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-23

Sample Preparation: 2010-08-23

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10400	mg/Kg	100	1.00

Sample: 241436 - AH-11 8-8.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 72832

Prep Batch: 62441

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-08-23

Sample Preparation: 2010-08-23

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8460	mg/Kg	100	1.00

Method Blank (1) QC Batch: 72752

QC Batch: 72752

Prep Batch: 62375

Date Analyzed: 2010-08-19

QC Preparation: 2010-08-19

Analyzed By: AR

Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 72753

QC Batch: 72753

Prep Batch: 62376

Date Analyzed: 2010-08-19

QC Preparation: 2010-08-19

Analyzed By: AR

Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

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Method Blank (1) QC Batch: 72754

QC Batch: 72754
Prep Batch: 62377

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 72755

QC Batch: 72755
Prep Batch: 62379

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 72775

QC Batch: 72775
Prep Batch: 62398

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: kg
Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.5	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		96.4	mg/Kg	1	100	96	70 - 130

Method Blank (1) QC Batch: 72808

QC Batch: 72808
Prep Batch: 62422

Date Analyzed: 2010-08-21
QC Preparation: 2010-08-20

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.70	mg/Kg	1	2.00	85	52.4 - 130

Method Blank (1) QC Batch: 72812

QC Batch: 72812 Date Analyzed: 2010-08-20 Analyzed By: kg
Prep Batch: 62428 QC Preparation: 2010-08-20 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.5	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		98.6	mg/Kg	1	100	99	70 - 130

Method Blank (1) QC Batch: 72815

QC Batch: 72815 Date Analyzed: 2010-08-22 Analyzed By: AG
Prep Batch: 62423 QC Preparation: 2010-08-21 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.43	mg/Kg	1	2.00	72	52.4 - 130

Method Blank (1) QC Batch: 72831

QC Batch: 72831 Date Analyzed: 2010-08-23 Analyzed By: AR
Prep Batch: 62380 QC Preparation: 2010-08-19 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

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Method Blank (1) QC Batch: 72832

QC Batch: 72832
Prep Batch: 62441

Date Analyzed: 2010-08-23
QC Preparation: 2010-08-23

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 72835

QC Batch: 72835
Prep Batch: 62422

Date Analyzed: 2010-08-21
QC Preparation: 2010-08-20

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.74	mg/Kg	1	2.00	87	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.50	mg/Kg	1	2.00	75	55.4 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 72752
Prep Batch: 62375

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.6	mg/Kg	1	100	<2.18	97	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	104	mg/Kg	1	100	<2.18	104	85 - 115	7	20

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

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Laboratory Control Spike (LCS-1)

QC Batch: 72753
Prep Batch: 62376

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.7	mg/Kg	1	100	<2.18	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	103	mg/Kg	1	100	<2.18	103	85 - 115	5	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: 72754
Prep Batch: 62377

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.4	mg/Kg	1	100	<2.18	96	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	104	mg/Kg	1	100	<2.18	104	85 - 115	8	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: 72755
Prep Batch: 62379

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.3	mg/Kg	1	100	<2.18	96	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<2.18	102	85 - 115	6	20

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

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Laboratory Control Spike (LCS-1)

QC Batch: 72775
Prep Batch: 62398

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	261	mg/Kg	1	250	<14.5	104	57.4 - 133.4

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
DRO	281	mg/Kg	1	250	<14.5	112	57.4 - 133.4	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
n-Tricosane	116	125	mg/Kg	1	100	116	125	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 72808
Prep Batch: 62422

Date Analyzed: 2010-08-21
QC Preparation: 2010-08-20

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.0	mg/Kg	1	20.0	<1.65	80	69.9 - 95.4

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	16.7	mg/Kg	1	20.0	<1.65	84	69.9 - 95.4	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
Trifluorotoluene (TFT)	2.05	2.01	mg/Kg	1	2.00	102	100	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.80	1.75	mg/Kg	1	2.00	90	88	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 72812
Prep Batch: 62428

Date Analyzed: 2010-08-20
QC Preparation: 2010-08-20

Analyzed By: kg
Prepared By: kg

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	241	mg/Kg	1	250	<14.5	96	57.4 - 133.4

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
DRO	234	mg/Kg	1	250	<14.5	94	57.4 - 133.4	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	110	108	mg/Kg	1	100	110	108	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 72815
Prep Batch: 62423

Date Analyzed: 2010-08-22
QC Preparation: 2010-08-21

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.3	mg/Kg	1	20.0	<1.65	72	69.9 - 95.4

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	14.2	mg/Kg	1	20.0	<1.65	71	69.9 - 95.4	1	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)	2.05	1.86	mg/Kg	1	2.00	102	93	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.64	1.51	mg/Kg	1	2.00	82	76	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 72831
Prep Batch: 62380

Date Analyzed: 2010-08-23
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.3	mg/Kg	1	100	<2.18	97	85 - 115

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

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	6	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: 72832
Prep Batch: 62441

Date Analyzed: 2010-08-23
QC Preparation: 2010-08-23

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.5	mg/Kg	1	100	<2.18	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	102	mg/Kg	1	100	<2.18	102	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 72835
Prep Batch: 62422

Date Analyzed: 2010-08-21
QC Preparation: 2010-08-20

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.15	mg/Kg	1	2.00	<0.0150	108	81.9 - 108
Toluene	2.06	mg/Kg	1	2.00	<0.00950	103	81.9 - 107
Ethylbenzene	1.90	mg/Kg	1	2.00	<0.0106	95	78.4 - 107
Xylene	5.73	mg/Kg	1	6.00	<0.00930	96	79.1 - 107

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	2.12	mg/Kg	1	2.00	<0.0150	106	81.9 - 108	1	20
Toluene	2.02	mg/Kg	1	2.00	<0.00950	101	81.9 - 107	2	20
Ethylbenzene	1.87	mg/Kg	1	2.00	<0.0106	94	78.4 - 107	2	20
Xylene	5.67	mg/Kg	1	6.00	<0.00930	94	79.1 - 107	1	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)	2.00	1.76	mg/Kg	1	2.00	100	88	70.2 - 114

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Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	1.90	1.66	mg/Kg	1	2.00	95	83	69.8 - 121

Matrix Spike (MS-1) Spiked Sample: 241390

QC Batch: 72752
Prep Batch: 62375

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10200	mg/Kg	100	10000	398	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	10400	mg/Kg	100	10000	398	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: 241400

QC Batch: 72753
Prep Batch: 62376

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	22400	mg/Kg	100	10000	12200	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	22800	mg/Kg	100	10000	12200	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: 241410

QC Batch: 72754
Prep Batch: 62377

Date Analyzed: 2010-08-19
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	18800	mg/Kg	100	10000	8810	100	85 - 115

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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	19300	mg/Kg	100	10000	8810	105	85 - 115	3	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: 241420

QC Batch: 72755 Date Analyzed: 2010-08-19 Analyzed By: AR
Prep Batch: 62379 QC Preparation: 2010-08-19 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	28500	mg/Kg	100	10000	18200	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	29000	mg/Kg	100	10000	18200	108	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: 241299

QC Batch: 72775 Date Analyzed: 2010-08-19 Analyzed By: kg
Prep Batch: 62398 QC Preparation: 2010-08-19 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	205	mg/Kg	1	250	<14.5	82	35.2 - 167.1

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	212	mg/Kg	1	250	<14.5	85	35.2 - 167.1	3	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-Tricosane	95.4	96.1	mg/Kg	1	100	95	96	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 241371

QC Batch: 72808
Prep Batch: 62422

Date Analyzed: 2010-08-21
QC Preparation: 2010-08-20

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	¹ 50.3	mg/Kg	1	20.0	6.92	217	61.8 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	² 35.9	mg/Kg	1	20.0	6.92	145	61.8 - 114	33	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.70	1.86	mg/Kg	1	2	85	93	50 - 162
4-Bromofluorobenzene (4-BFB)	1.69	1.72	mg/Kg	1	2	84	86	50 - 162

Matrix Spike (MS-1) Spiked Sample: 241463

QC Batch: 72812
Prep Batch: 62428

Date Analyzed: 2010-08-20
QC Preparation: 2010-08-20

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	216	mg/Kg	1	250	<14.5	86	35.2 - 167.1

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	226	mg/Kg	1	250	<14.5	90	35.2 - 167.1	4	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-Tricosane	98.4	104	mg/Kg	1	100	98	104	70 - 130

Matrix Spike (MS-1) Spiked Sample: 241593

QC Batch: 72815
Prep Batch: 62423

Date Analyzed: 2010-08-22
QC Preparation: 2010-08-21

Analyzed By: AG
Prepared By: AG

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

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

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.6	mg/Kg	1	20.0	<1.65	83	61.8 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.4	mg/Kg	1	20.0	<1.65	82	61.8 - 114	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)	1.70	2.03	mg/Kg	1	2	85	102	50 - 162
4-Bromofluorobenzene (4-BFB)	1.54	1.80	mg/Kg	1	2	77	90	50 - 162

Matrix Spike (MS-1) Spiked Sample: 241430

QC Batch: 72831
Prep Batch: 62380

Date Analyzed: 2010-08-23
QC Preparation: 2010-08-19

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	15600	mg/Kg	100	10000	5940	97	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	16400	mg/Kg	100	10000	5940	105	85 - 115	5	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: 241463

QC Batch: 72832
Prep Batch: 62441

Date Analyzed: 2010-08-23
QC Preparation: 2010-08-23

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11400	mg/Kg	100	10000	1440	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	12100	mg/Kg	100	10000	1440	107	85 - 115	6	20

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

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Standard (ICV-1)

QC Batch: 72752

Date Analyzed: 2010-08-19

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2010-08-19

Standard (CCV-1)

QC Batch: 72752

Date Analyzed: 2010-08-19

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	2010-08-19

Standard (ICV-1)

QC Batch: 72753

Date Analyzed: 2010-08-19

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	2010-08-19

Standard (CCV-1)

QC Batch: 72753

Date Analyzed: 2010-08-19

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	2010-08-19

Standard (ICV-1)

QC Batch: 72754

Date Analyzed: 2010-08-19

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2010-08-19

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Standard (CCV-1)

QC Batch: 72754

Date Analyzed: 2010-08-19

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2010-08-19

Standard (ICV-1)

QC Batch: 72755

Date Analyzed: 2010-08-19

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2010-08-19

Standard (CCV-1)

QC Batch: 72755

Date Analyzed: 2010-08-19

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	2010-08-19

Standard (CCV-2)

QC Batch: 72775

Date Analyzed: 2010-08-19

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	232	93	80 - 120	2010-08-19

Standard (CCV-3)

QC Batch: 72775

Date Analyzed: 2010-08-19

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	239	96	80 - 120	2010-08-19

Report Date: August 25, 2010
114-6400626

Work Order: 10081702
COG/Loco Hills SWD #1

Page Number: 43 of 45
Eddy County, NM

Standard (CCV-4)

QC Batch: 72775

Date Analyzed: 2010-08-19

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	245	98	80 - 120	2010-08-19

Standard (CCV-2)

QC Batch: 72808

Date Analyzed: 2010-08-21

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.988	99	80 - 120	2010-08-21

Standard (CCV-3)

QC Batch: 72808

Date Analyzed: 2010-08-21

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.909	91	80 - 120	2010-08-21

Standard (CCV-1)

QC Batch: 72812

Date Analyzed: 2010-08-20

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	223	89	80 - 120	2010-08-20

Standard (CCV-2)

QC Batch: 72812

Date Analyzed: 2010-08-20

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	230	92	80 - 120	2010-08-20

Report Date: August 25, 2010
114-6400626

Work Order: 10081702
COG/Loco Hills SWD #1

Page Number: 44 of 45
Eddy County, NM

Standard (CCV-1)

QC Batch: 72815

Date Analyzed: 2010-08-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.892	89	80 - 120	2010-08-22

Standard (CCV-2)

QC Batch: 72815

Date Analyzed: 2010-08-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.860	86	80 - 120	2010-08-22

Standard (ICV-1)

QC Batch: 72831

Date Analyzed: 2010-08-23

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.7	100	85 - 115	2010-08-23

Standard (CCV-1)

QC Batch: 72831

Date Analyzed: 2010-08-23

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	2010-08-23

Standard (ICV-1)

QC Batch: 72832

Date Analyzed: 2010-08-23

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	2010-08-23

Report Date: August 25, 2010
114-6400626

Work Order: 10081702
COG/Loco Hills SWD #1

Page Number: 45 of 45
Eddy County, NM

Standard (CCV-1)

QC Batch: 72832

Date Analyzed: 2010-08-23

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2010-08-23

Standard (CCV-2)

QC Batch: 72835

Date Analyzed: 2010-08-21

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.102	102	80 - 120	2010-08-21
Toluene		mg/Kg	0.100	0.0973	97	80 - 120	2010-08-21
Ethylbenzene		mg/Kg	0.100	0.0901	90	80 - 120	2010-08-21
Xylene		mg/Kg	0.300	0.270	90	80 - 120	2010-08-21

Standard (CCV-3)

QC Batch: 72835

Date Analyzed: 2010-08-21

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2010-08-21
Toluene		mg/Kg	0.100	0.0953	95	80 - 120	2010-08-21
Ethylbenzene		mg/Kg	0.100	0.0869	87	80 - 120	2010-08-21
Xylene		mg/Kg	0.300	0.262	87	80 - 120	2010-08-21

WO#: 10081702

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 6



TETRA TECH

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

CLIENT NAME:
COG

SITE MANAGER:
Ike Tovar

PROJECT NO.:
14-CH00626

PROJECT NAME:
COG / Lolo Hills SWD #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE
24183	8/4		S		X	AH-1 0-1'	1				X	
384						AH-1 1'-1.5'						
385						AH-1 2'-2.5'						
386						AH-1 3'-3.5'						
387						AH-1 4'-4.5'						
388						AH-2 0-1'						
389						AH-2 1'-1.5'						
390						AH-2 2'-2.5'						
391						AH-2 3'-3.5'						
392						AH-2 4'-4.5'						

RELINQUISHED BY: (Signature) <i>[Signature]</i>	Date: 8/13/10 Time: 1545	RECEIVED BY: (Signature) <i>[Signature]</i>	Date: 8/13/10 Time: 1546	SAMPLED BY: (Print & Initial) ST/JS	Date: 8/4/10 Time:
RELINQUISHED BY: (Signature)	Date:	RECEIVED BY: (Signature)	Date:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:
RELINQUISHED BY: (Signature)	Date:	RECEIVED BY: (Signature)	Date:	TETRA TECH CONTACT PERSON: Ike Tovar	Results by:
RECEIVING LABORATORY: <i>Trace</i>	ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE: DATE: TIME:	RECEIVED BY: (Signature)	DATE: TIME:	RUSH Charges Authorized: Yes No	

SAMPLE CONDITION WHEN RECEIVED: 18.0°C intact

REMARKS: If total TPH exceeds 5,000 mg/kg run deeper sample / If BTEX exceeds 50 mg/kg or Benzene exceed 10 mg/kg Run deeper samples

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

Run 6 highest TPH for BTEX

AUG 25 2010

WO # 10081702

Analysis Request of Chain of Custody Record

PAGE: 3 OF: 6



TETRA TECH

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Turner

PROJECT NO.:

114-4000-LL

PROJECT NAME:

COG / Loco Hills SWD #1

Eddy Co., NM

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE
METHOD

RTX 8021B	TX1005 (Ext. to C35)	As Ba Cd Cr Pb Hg Se	As Ba Cd Cr Pb 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. 808/808	Chlordane	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
TPH 8015 MOD	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. 8240/8260/824	GC/MS Semi. Vol. 8270/825	PCB's 8080/808	Pest. 808/808	Chlordane	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date:

8/13/10

Time:

15:45

RECEIVED BY: (Signature)

Date:

8/13/10

Time:

15:45

SAMPLED BY: (Print & Initial)

JT/JJ

Date:

8/17/10

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:

TETRA TECH CONTACT PERSON:

Ike Turner

Results by:

RUSH Charges

Authorized:

Yes No

RECEIVING LABORATORY:

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

18.0°C intact

REMARKS:

Initial TPH exceeds 5000 mg/kg run deeper samples

Run BTEX on 6 highest TPH. If BTEX exceeds 50 mg/kg or Benzene exceeds 10 mg/kg run deeper samples

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

WO# 10081702

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 6



TETRA TECH

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG				SITE MANAGER: Ike Tavaraz				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 Cr Pb 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. 808/808 Chloride Gamma Spec. Alpha Beta (Air) PLM (Asbestos) Major Anions/Cations, pH, TDS													
PROJECT NO.: 114-640022				PROJECT NAME: COG / Loco Hills SWD #1 Edley Co. NM				FILTERED (Y/N)																	
LAB I.D. NUMBER	DATE 201C	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION			HCL	HNO3	ICE	NONE													
241413	8/4		S		X	AH-L 3'-3.5'		1			X														
414						AH-7 0-1'																			
415						AH-7 1'-1.5'																			
416						AH-7 2'-2.5'																			
417						AH-B 0-1'																			
418						AH-B 1'-1.5'																			
419						AH-B 2'-2.5'																			
420						AH-B 3'-3.5'																			
421						AH-B 4'-4.5'																			
422						AH-9 0-1'																			
RELINQUISHED BY: (Signature) <i>[Signature]</i>				Date: 8/13/0				RECEIVED BY: (Signature) <i>[Signature]</i>				Date: 8/13/0				SAMPLED BY: (Print & Initial) JT/LL				Date: _____					
RELINQUISHED BY: (Signature) _____				Time: 1545				RECEIVED BY: (Signature) _____				Time: _____				SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: _____				Date: _____					
RELINQUISHED BY: (Signature) _____				Time: _____				RECEIVED BY: (Signature) _____				Time: _____				TETRA TECH CONTACT PERSON: Ike Tavaraz				OTHER: _____					
RECEIVING LABORATORY: <i>Tetra</i>								RECEIVED BY: (Signature) _____								Results by: _____									
ADDRESS: _____								DATE: _____								RUSH Charges Authorized: Yes No									
CITY: Midland STATE: TX ZIP: _____								TIME: _____																	
CONTACT: _____ PHONE: _____																									
SAMPLE CONDITION WHEN RECEIVED: 18.0°C intact								REMARKS: Run BTEX on 6 highest TPH, if Benzene exceeds 10 mg/kg or total 13.1 mg/kg exceeds 50 mg/kg run deeper samples																	

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

WO #: 10087702

Analysis Request of Chain of Custody Record

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TETRA TECH

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tovar

PROJECT NO.:

14-6400626

PROJECT NAME:

COG / Low Hills SWD #1

LAB I.D.
NUMBER

DATE
2010

TIME

MATRIX
COMP.
GRAB

SAMPLE IDENTIFICATION
Eddy Co, NM
AH-9 1'-1.5'
AH-9 2'-2.5' 1.5'-2' (perme)
AH-10 0-1'
AH-10 1'-1.5'
AH-10 2'-2.5'
AH-11 0-1'
AH-11 1'-1.5'
AH-11 2'-2.5'
AH-11 3'-3.5'
AH-11 4'-4.5'

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

TEX 8021B
CPH 8015 MOD TX1005 (Ext. to C36)

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. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCBs 8080/808

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date: 8/13/10

Time: 1545

RECEIVED BY: (Signature)

Date: 8/13/10

Time: 1545

SAMPLED BY: (Print & Initial)

Date: 8/13/10

Time: 1545

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

FEDEX

BUS

HAND DELIVERED

UPS

OTHER:

RECEIVING LABORATORY:

ADDRESS:

CITY:

CONTACT:

STATE:

PHONE:

ZIP:

RECEIVED BY: (Signature)

DATE:

TIME:

TETRA TECH CONTACT PERSON:

Ike Tovar

Results by:

RUSH Charges
Authorized:

Yes No

SAMPLE CONDITION WHEN RECEIVED:

18.0° contact

REMARKS:

If total TPH exceeds 5,000 mg/kg run deeper samples / Ran LIBTEX on highest TPH, If total BTEX exceeds 50 mg/kg or Benzene exceeds 10 mg/kg run deeper samples

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

WO #: 10081702

Analysis Request of Chain of Custody Record

PAGE: 6 OF: 6

**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Taveria

PROJECT NO.:

114-6400626

PROJECT NAME:

COG / loco Hills SWD #1

Eddy Co. NM

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE
METHODBTEX 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. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCB's 8080/808

Pest. 808/808

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date: 8/13/10

Time: 1545

RECEIVED BY: (Signature)

Date: 8/13/10

Time: 1546

SAMPLED BY: (Print & Initial)

JT / JJ

Date: 8/13/10

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

HAND DELIVERED

UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

RECEIVING LABORATORY:

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

RECEIVED BY: (Signature)

TETRA TECH CONTACT PERSON:

Ike Taveria

Results by:

RUSH Charges
Authorized:

Yes

No

SAMPLE CONDITION WHEN RECEIVED:

18.0°C intact

REMARKS:

If total TPH exceeds 5,000 mg/kg run deeper samples / Run BTEX on highest TPH. If BTEX exceeds 50 mg/kg or Benzene exceeds 10 mg/kg run deeper samples

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

Summary Report

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

Report Date: October 14, 2010

Work Order: 10100710



Project Location: Eddy County, NM
Project Name: COC/Loco Hills SWD #35
Project Number: 114-6400626

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
246843	BH-1 0-1'	soil	2010-10-05	00:00	2010-10-07
246844	BH-1 3'	soil	2010-10-05	00:00	2010-10-07
246845	BH-1 5'	soil	2010-10-05	00:00	2010-10-07
246846	BH-1 7'	soil	2010-10-05	00:00	2010-10-07
246847	BH-1 10'	soil	2010-10-05	00:00	2010-10-07
246848	BH-1 15'	soil	2010-10-05	00:00	2010-10-07
246849	BH-1 20'	soil	2010-10-05	00:00	2010-10-07
246850	BH-1 25'	soil	2010-10-05	00:00	2010-10-07
246851	BH-1 30'	soil	2010-10-05	00:00	2010-10-07
246853	BH-2 0-1'	soil	2010-10-05	00:00	2010-10-07
246854	BH-2 3'	soil	2010-10-05	00:00	2010-10-07
246855	BH-2 5'	soil	2010-10-05	00:00	2010-10-07
246856	BH-2 7'	soil	2010-10-05	00:00	2010-10-07
246857	BH-2 10'	soil	2010-10-05	00:00	2010-10-07
246858	BH-2 15'	soil	2010-10-05	00:00	2010-10-07
246859	BH-2 20'	soil	2010-10-05	00:00	2010-10-07
246860	BH-2 25'	soil	2010-10-05	00:00	2010-10-07
246861	BH-2 30'	soil	2010-10-05	00:00	2010-10-07
246862	BH-2 40'	soil	2010-10-05	00:00	2010-10-07
246864	BH-3 0-1'	soil	2010-10-05	00:00	2010-10-07
246865	BH-3 3'	soil	2010-10-05	00:00	2010-10-07
246866	BH-3 5'	soil	2010-10-05	00:00	2010-10-07
246867	BH-3 7'	soil	2010-10-05	00:00	2010-10-07
246868	BH-3 10'	soil	2010-10-05	00:00	2010-10-07
246871	BH-4 0-1'	soil	2010-10-05	00:00	2010-10-07
246872	BH-4 3'	soil	2010-10-05	00:00	2010-10-07
246873	BH-4 5'	soil	2010-10-05	00:00	2010-10-07
246874	BH-4 7'	soil	2010-10-05	00:00	2010-10-07
246875	BH-4 10'	soil	2010-10-05	00:00	2010-10-07
246876	BH-4 15'	soil	2010-10-05	00:00	2010-10-07

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
246877	BH-4 20'	soil	2010-10-05	00:00	2010-10-07
246878	BH-5 0-1'	soil	2010-10-05	00:00	2010-10-07
246879	BH-5 3'	soil	2010-10-05	00:00	2010-10-07
246880	BH-5 5'	soil	2010-10-05	00:00	2010-10-07
246881	BH-5 7'	soil	2010-10-05	00:00	2010-10-07
246882	BH-5 10'	soil	2010-10-05	00:00	2010-10-07
246883	BH-5 15'	soil	2010-10-05	00:00	2010-10-07
246884	BH-5 20'	soil	2010-10-05	00:00	2010-10-07
246885	BH-5 25'	soil	2010-10-05	00:00	2010-10-07
246886	BH-5 30'	soil	2010-10-05	00:00	2010-10-07
246887	BH-5 40'	soil	2010-10-05	00:00	2010-10-07
246889	BH-6 0-1'	soil	2010-10-05	00:00	2010-10-07
246890	BH-6 3'	soil	2010-10-05	00:00	2010-10-07
246891	BH-6 5'	soil	2010-10-05	00:00	2010-10-07
246892	BH-6 7'	soil	2010-10-05	00:00	2010-10-07
246893	BH-6 10'	soil	2010-10-05	00:00	2010-10-07
246894	BH-6 15'	soil	2010-10-05	00:00	2010-10-07
246895	BH-6 20'	soil	2010-10-05	00:00	2010-10-07
246896	BH-6 25'	soil	2010-10-05	00:00	2010-10-07
246897	BH-7 0-1'	soil	2010-10-05	00:00	2010-10-07
246898	BH-7 3'	soil	2010-10-05	00:00	2010-10-07
246899	BH-7 5'	soil	2010-10-05	00:00	2010-10-07
246900	BH-7 7'	soil	2010-10-05	00:00	2010-10-07
246901	BH-7 10'	soil	2010-10-05	00:00	2010-10-07
246902	BH-7 15'	soil	2010-10-05	00:00	2010-10-07
246903	BH-7 20'	soil	2010-10-05	00:00	2010-10-07
246904	BH-7 25'	soil	2010-10-05	00:00	2010-10-07

Sample: 246843 - BH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246844 - BH-1 3'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246845 - BH-1 5'

Param	Flag	Result	Units	RL
Chloride		8530	mg/Kg	4.00

Sample: 246846 - BH-1 7'

Param	Flag	Result	Units	RL
Chloride		15200	mg/Kg	4.00

Sample: 246847 - BH-1 10'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246848 - BH-1 15'

Param	Flag	Result	Units	RL
Chloride		497	mg/Kg	4.00

Sample: 246849 - BH-1 20'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246850 - BH-1 25'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246851 - BH-1 30'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246853 - BH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246854 - BH-2 3'

Param	Flag	Result	Units	RL
Chloride		2950	mg/Kg	4.00

Sample: 246855 - BH-2 5'

Param	Flag	Result	Units	RL
Chloride		16200	mg/Kg	4.00

Sample: 246856 - BH-2 7'

Param	Flag	Result	Units	RL
Chloride		8150	mg/Kg	4.00

Sample: 246857 - BH-2 10'

Param	Flag	Result	Units	RL
Chloride		7810	mg/Kg	4.00

Sample: 246858 - BH-2 15'

Param	Flag	Result	Units	RL
Chloride		1240	mg/Kg	4.00

Sample: 246859 - BH-2 20'

Param	Flag	Result	Units	RL
Chloride		697	mg/Kg	4.00

Sample: 246860 - BH-2 25'

Param	Flag	Result	Units	RL
Chloride		464	mg/Kg	4.00

Sample: 246861 - BH-2 30'

Param	Flag	Result	Units	RL
Chloride		409	mg/Kg	4.00

Sample: 246862 - BH-2 40'

Param	Flag	Result	Units	RL
Chloride		202	mg/Kg	4.00

Sample: 246864 - BH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246865 - BH-3 3'

Param	Flag	Result	Units	RL
Chloride		1490	mg/Kg	4.00

Sample: 246866 - BH-3 5'

Param	Flag	Result	Units	RL
Chloride		16200	mg/Kg	4.00

Sample: 246867 - BH-3 7'

Param	Flag	Result	Units	RL
Chloride		602	mg/Kg	4.00

Sample: 246868 - BH-3 10'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246871 - BH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		248	mg/Kg	4.00

Sample: 246872 - BH-4 3'

Param	Flag	Result	Units	RL
Chloride		283	mg/Kg	4.00

Sample: 246873 - BH-4 5'

Param	Flag	Result	Units	RL
Chloride		1170	mg/Kg	4.00

Sample: 246874 - BH-4 7'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246875 - BH-4 10'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246876 - BH-4 15'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246877 - BH-4 20'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246878 - BH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		348	mg/Kg	4.00

Sample: 246879 - BH-5 3'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246880 - BH-5 5'

Param	Flag	Result	Units	RL
Chloride		278	mg/Kg	4.00

Sample: 246881 - BH-5 7'

Param	Flag	Result	Units	RL
Chloride		9020	mg/Kg	4.00

Sample: 246882 - BH-5 10'

Param	Flag	Result	Units	RL
Chloride		2160	mg/Kg	4.00

Sample: 246883 - BH-5 15'

Param	Flag	Result	Units	RL
Chloride		5740	mg/Kg	4.00

Sample: 246884 - BH-5 20'

Param	Flag	Result	Units	RL
Chloride		3440	mg/Kg	4.00

Sample: 246885 - BH-5 25'

Param	Flag	Result	Units	RL
Chloride		264	mg/Kg	4.00

Sample: 246886 - BH-5 30'

Param	Flag	Result	Units	RL
Chloride		259	mg/Kg	4.00

Sample: 246887 - BH-5 40'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246889 - BH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		507	mg/Kg	4.00

Sample: 246890 - BH-6 3'

Param	Flag	Result	Units	RL
Chloride		2290	mg/Kg	4.00

Sample: 246891 - BH-6 5'

Param	Flag	Result	Units	RL
Chloride		10300	mg/Kg	4.00

Sample: 246892 - BH-6 7'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246893 - BH-6 10'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246894 - BH-6 15'

Param	Flag	Result	Units	RL
Chloride		211	mg/Kg	4.00

Sample: 246895 - BH-6 20'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246896 - BH-6 25'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246897 - BH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246898 - BH-7 3'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246899 - BH-7 5'

Param	Flag	Result	Units	RL
Chloride		1740	mg/Kg	4.00

Sample: 246900 - BH-7 7'

Param	Flag	Result	Units	RL
Chloride		6850	mg/Kg	4.00

Sample: 246901 - BH-7 10'

Param	Flag	Result	Units	RL
Chloride		3750	mg/Kg	4.00

Sample: 246902 - BH-7 15'

Param	Flag	Result	Units	RL
Chloride		338	mg/Kg	4.00

Sample: 246903 - BH-7 20'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 246904 - BH-7 25'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

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

Report Date: October 14, 2010

Work Order: 10100710



Project Location: Eddy County, NM
Project Name: COG/Loco Hills SWD #35
Project Number: 114-6400626

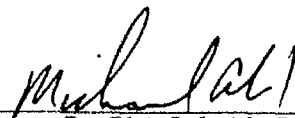
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
246843	BH-1 0-1'	soil	2010-10-05	00:00	2010-10-07
246844	BH-1 3'	soil	2010-10-05	00:00	2010-10-07
246845	BH-1 5'	soil	2010-10-05	00:00	2010-10-07
246846	BH-1 7'	soil	2010-10-05	00:00	2010-10-07
246847	BH-1 10'	soil	2010-10-05	00:00	2010-10-07
246848	BH-1 15'	soil	2010-10-05	00:00	2010-10-07
246849	BH-1 20'	soil	2010-10-05	00:00	2010-10-07
246850	BH-1 25'	soil	2010-10-05	00:00	2010-10-07
246851	BH-1 30'	soil	2010-10-05	00:00	2010-10-07
246853	BH-2 0-1'	soil	2010-10-05	00:00	2010-10-07
246854	BH-2 3'	soil	2010-10-05	00:00	2010-10-07
246855	BH-2 5'	soil	2010-10-05	00:00	2010-10-07
246856	BH-2 7'	soil	2010-10-05	00:00	2010-10-07
246857	BH-2 10'	soil	2010-10-05	00:00	2010-10-07
246858	BH-2 15'	soil	2010-10-05	00:00	2010-10-07
246859	BH-2 20'	soil	2010-10-05	00:00	2010-10-07
246860	BH-2 25'	soil	2010-10-05	00:00	2010-10-07
246861	BH-2 30'	soil	2010-10-05	00:00	2010-10-07
246862	BH-2 40'	soil	2010-10-05	00:00	2010-10-07
246864	BH-3 0-1'	soil	2010-10-05	00:00	2010-10-07

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
246865	BH-3 3'	soil	2010-10-05	00:00	2010-10-07
246866	BH-3 5'	soil	2010-10-05	00:00	2010-10-07
246867	BH-3 7'	soil	2010-10-05	00:00	2010-10-07
246868	BH-3 10'	soil	2010-10-05	00:00	2010-10-07
246871	BH-4 0-1'	soil	2010-10-05	00:00	2010-10-07
246872	BH-4 3'	soil	2010-10-05	00:00	2010-10-07
246873	BH-4 5'	soil	2010-10-05	00:00	2010-10-07
246874	BH-4 7'	soil	2010-10-05	00:00	2010-10-07
246875	BH-4 10'	soil	2010-10-05	00:00	2010-10-07
246876	BH-4 15'	soil	2010-10-05	00:00	2010-10-07
246877	BH-4 20'	soil	2010-10-05	00:00	2010-10-07
246878	BH-5 0-1'	soil	2010-10-05	00:00	2010-10-07
246879	BH-5 3'	soil	2010-10-05	00:00	2010-10-07
246880	BH-5 5'	soil	2010-10-05	00:00	2010-10-07
246881	BH-5 7'	soil	2010-10-05	00:00	2010-10-07
246882	BH-5 10'	soil	2010-10-05	00:00	2010-10-07
246883	BH-5 15'	soil	2010-10-05	00:00	2010-10-07
246884	BH-5 20'	soil	2010-10-05	00:00	2010-10-07
246885	BH-5 25'	soil	2010-10-05	00:00	2010-10-07
246886	BH-5 30'	soil	2010-10-05	00:00	2010-10-07
246887	BH-5 40'	soil	2010-10-05	00:00	2010-10-07
246889	BH-6 0-1'	soil	2010-10-05	00:00	2010-10-07
246890	BH-6 3'	soil	2010-10-05	00:00	2010-10-07
246891	BH-6 5'	soil	2010-10-05	00:00	2010-10-07
246892	BH-6 7'	soil	2010-10-05	00:00	2010-10-07
246893	BH-6 10'	soil	2010-10-05	00:00	2010-10-07
246894	BH-6 15'	soil	2010-10-05	00:00	2010-10-07
246895	BH-6 20'	soil	2010-10-05	00:00	2010-10-07
246896	BH-6 25'	soil	2010-10-05	00:00	2010-10-07
246897	BH-7 0-1'	soil	2010-10-05	00:00	2010-10-07
246898	BH-7 3'	soil	2010-10-05	00:00	2010-10-07
246899	BH-7 5'	soil	2010-10-05	00:00	2010-10-07
246900	BH-7 7'	soil	2010-10-05	00:00	2010-10-07
246901	BH-7 10'	soil	2010-10-05	00:00	2010-10-07
246902	BH-7 15'	soil	2010-10-05	00:00	2010-10-07
246903	BH-7 20'	soil	2010-10-05	00:00	2010-10-07
246904	BH-7 25'	soil	2010-10-05	00:00	2010-10-07

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 27 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

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

Case Narrative

Samples for project COG/Loco Hills SWD #35 were received by TraceAnalysis, Inc. on 2010-10-07 and assigned to work order 10100710. Samples for work order 10100710 were received intact at a temperature of 3.4 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	63774	2010-10-11 at 10:21	74376	2010-10-13 at 14:50
Chloride (Titration)	SM 4500-Cl B	63774	2010-10-11 at 10:21	74377	2010-10-13 at 14:51
Chloride (Titration)	SM 4500-Cl B	63774	2010-10-11 at 10:21	74378	2010-10-13 at 14:52
Chloride (Titration)	SM 4500-Cl B	63774	2010-10-11 at 10:21	74379	2010-10-13 at 14:53
Chloride (Titration)	SM 4500-Cl B	63790	2010-10-12 at 10:00	74380	2010-10-13 at 14:54
Chloride (Titration)	SM 4500-Cl B	63790	2010-10-12 at 10:00	74381	2010-10-13 at 14:55

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 10100710 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.

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114-6400626

Work Order: 10100710
COG/Loco Hills SWD #35

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Analytical Report

Sample: 246843 - BH-1 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74376	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246844 - BH-1 3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74376	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246845 - BH-1 5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74376	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8530	mg/Kg	100	4.00

Sample: 246846 - BH-1 7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74376	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

continued ...

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sample 246846 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		15200	mg/Kg	100	4.00

Sample: 246847 - BH-1 10'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 74376 Date Analyzed: 2010-10-13 Analyzed By: AR
Prep Batch: 63774 Sample Preparation: 2010-10-12 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246848 - BH-1 15'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 74376 Date Analyzed: 2010-10-13 Analyzed By: AR
Prep Batch: 63774 Sample Preparation: 2010-10-12 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		497	mg/Kg	50	4.00

Sample: 246849 - BH-1 20'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 74376 Date Analyzed: 2010-10-13 Analyzed By: AR
Prep Batch: 63774 Sample Preparation: 2010-10-12 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

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Sample: 246850 - BH-1 25'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74376	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246851 - BH-1 30'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74376	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246853 - BH-2 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74376	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246854 - BH-2 3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2950	mg/Kg	100	4.00

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Sample: 246855 - BH-2 5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		16200	mg/Kg	100	4.00

Sample: 246856 - BH-2 7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8150	mg/Kg	100	4.00

Sample: 246857 - BH-2 10'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7810	mg/Kg	100	4.00

Sample: 246858 - BH-2 15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1240	mg/Kg	100	4.00

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Sample: 246859 - BH-2 20'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		697	mg/Kg	50	4.00

Sample: 246860 - BH-2 25'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		464	mg/Kg	50	4.00

Sample: 246861 - BH-2 30'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		409	mg/Kg	50	4.00

Sample: 246862 - BH-2 40'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74377	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		202	mg/Kg	50	4.00

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Sample: 246864 - BH-3 0-1'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	74377	Date Analyzed:	2010-10-13
Prep Batch:	63774	Sample Preparation:	2010-10-12
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246865 - BH-3 3'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	74378	Date Analyzed:	2010-10-13
Prep Batch:	63774	Sample Preparation:	2010-10-12
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1490	mg/Kg	100	4.00

Sample: 246866 - BH-3 5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	74378	Date Analyzed:	2010-10-13
Prep Batch:	63774	Sample Preparation:	2010-10-12
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		16200	mg/Kg	100	4.00

Sample: 246867 - BH-3 7'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	74378	Date Analyzed:	2010-10-13
Prep Batch:	63774	Sample Preparation:	2010-10-12
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		602	mg/Kg	50	4.00

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Sample: 246868 - BH-3 10'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74378	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246871 - BH-4 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74378	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		248	mg/Kg	50	4.00

Sample: 246872 - BH-4 3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74378	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		283	mg/Kg	50	4.00

Sample: 246873 - BH-4 5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74378	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1170	mg/Kg	100	4.00

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Sample: 246874 - BH-4 7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74378	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246875 - BH-4 10'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74378	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246876 - BH-4 15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74378	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246877 - BH-4 20'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

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Sample: 246878 - BH-5 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		348	mg/Kg	50	4.00

Sample: 246879 - BH-5 3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246880 - BH-5 5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		278	mg/Kg	50	4.00

Sample: 246881 - BH-5 7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9020	mg/Kg	100	4.00

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Sample: 246882 - BH-5 10'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2160	mg/Kg	100	4.00

Sample: 246883 - BH-5 15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5740	mg/Kg	100	4.00

Sample: 246884 - BH-5 20'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3440	mg/Kg	100	4.00

Sample: 246885 - BH-5 25'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		264	mg/Kg	50	4.00

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Sample: 246886 - BH-5 30'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74379	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63774				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		259	mg/Kg	50	4.00

Sample: 246887 - BH-5 40'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246889 - BH-6 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		507	mg/Kg	50	4.00

Sample: 246890 - BH-6 3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2290	mg/Kg	100	4.00

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Sample: 246891 - BH-6 5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10300	mg/Kg	100	4.00

Sample: 246892 - BH-6 7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246893 - BH-6 10'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246894 - BH-6 15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		211	mg/Kg	50	4.00

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Sample: 246895 - BH-6 20'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246896 - BH-6 25'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246897 - BH-7 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74380	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246898 - BH-7 3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74381	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

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Sample: 246899 - BH-7 5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74381	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1740	mg/Kg	100	4.00

Sample: 246900 - BH-7 7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74381	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6850	mg/Kg	100	4.00

Sample: 246901 - BH-7 10'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74381	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3750	mg/Kg	100	4.00

Sample: 246902 - BH-7 15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-10-13	Analyzed By:	AR
QC Batch:	74381	Sample Preparation:	2010-10-12	Prepared By:	AR
Prep Batch:	63790				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		338	mg/Kg	50	4.00

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Sample: 246903 - BH-7 20'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 74381 Date Analyzed: 2010-10-13 Analyzed By: AR
Prep Batch: 63790 Sample Preparation: 2010-10-12 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 246904 - BH-7 25'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 74381 Date Analyzed: 2010-10-13 Analyzed By: AR
Prep Batch: 63790 Sample Preparation: 2010-10-12 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Method Blank (1) QC Batch: 74376

QC Batch: 74376 Date Analyzed: 2010-10-13 Analyzed By: AR
Prep Batch: 63774 QC Preparation: 2010-10-11 Prepared By: BP

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 74377

QC Batch: 74377 Date Analyzed: 2010-10-13 Analyzed By: AR
Prep Batch: 63774 QC Preparation: 2010-10-11 Prepared By: BP

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

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Method Blank (1) QC Batch: 74378

QC Batch: 74378
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 74379

QC Batch: 74379
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 74380

QC Batch: 74380
Prep Batch: 63790

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-12

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 74381

QC Batch: 74381
Prep Batch: 63790

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-12

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

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Laboratory Control Spike (LCS-1)

QC Batch: 74376
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.4	mg/Kg	1	100	<2.18	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	104	mg/Kg	1	100	<2.18	104	85 - 115	6	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: 74377
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	104	mg/Kg	1	100	<2.18	104	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 74378
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<2.18	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	104	mg/Kg	1	100	<2.18	104	85 - 115	3	20

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

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Laboratory Control Spike (LCS-1)

QC Batch: 74379
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.0	mg/Kg	1	100	<2.18	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	102	mg/Kg	1	100	<2.18	102	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 74380
Prep Batch: 63790

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-12

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.5	mg/Kg	1	100	<2.18	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	104	mg/Kg	1	100	<2.18	104	85 - 115	6	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: 74381
Prep Batch: 63790

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-12

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.6	mg/Kg	1	100	<2.18	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	103	mg/Kg	1	100	<2.18	103	85 - 115	5	20

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

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Matrix Spike (MS-1) Spiked Sample: 246853

QC Batch: 74376
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10100	mg/Kg	100	10000	<218	99	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	10700	mg/Kg	100	10000	<218	105	85 - 115	6	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: 246864

QC Batch: 74377
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10100	mg/Kg	100	10000	<218	101	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10600	mg/Kg	100	10000	<218	106	85 - 115	5	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: 246876

QC Batch: 74378
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9940	mg/Kg	100	10000	<218	99	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	10400	mg/Kg	100	10000	<218	104	85 - 115	4	20

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

Report Date: October 14, 2010
114-6400626

Work Order: 10100710
COG/Loco Hills SWD #35

Page Number: 24 of 27
Eddy County, NM

Matrix Spike (MS-1) Spiked Sample: 246886

QC Batch: 74379
Prep Batch: 63774

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-11

Analyzed By: AR
Prepared By: BP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10100	mg/Kg	100	10000	259	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	10700	mg/Kg	100	10000	259	104	85 - 115	6	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: 246897

QC Batch: 74380
Prep Batch: 63790

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-12

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10200	mg/Kg	100	10000	<218	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	10700	mg/Kg	100	10000	<218	107	85 - 115	5	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: 246920

QC Batch: 74381
Prep Batch: 63790

Date Analyzed: 2010-10-13
QC Preparation: 2010-10-12

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	14500	mg/Kg	100	10000	3940	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	14800	mg/Kg	100	10000	3940	109	85 - 115	2	20

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

Report Date: October 14, 2010
114-6400626

Work Order: 10100710
COG/Loco Hills SWD #35

Page Number: 25 of 27
Eddy County, NM

Standard (ICV-1)

QC Batch: 74376

Date Analyzed: 2010-10-13

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.9	98	85 - 115	2010-10-13

Standard (CCV-1)

QC Batch: 74376

Date Analyzed: 2010-10-13

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-10-13

Standard (ICV-1)

QC Batch: 74377

Date Analyzed: 2010-10-13

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-10-13

Standard (CCV-1)

QC Batch: 74377

Date Analyzed: 2010-10-13

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2010-10-13

Standard (ICV-1)

QC Batch: 74378

Date Analyzed: 2010-10-13

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.6	99	85 - 115	2010-10-13

Report Date: October 14, 2010
114-6400626

Work Order: 10100710
COG/Loco Hills SWD #35

Page Number: 26 of 27
Eddy County, NM

Standard (CCV-1)

QC Batch: 74378

Date Analyzed: 2010-10-13

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	2010-10-13

Standard (ICV-1)

QC Batch: 74379

Date Analyzed: 2010-10-13

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.7	100	85 - 115	2010-10-13

Standard (CCV-1)

QC Batch: 74379

Date Analyzed: 2010-10-13

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	2010-10-13

Standard (ICV-1)

QC Batch: 74380

Date Analyzed: 2010-10-13

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	2010-10-13

Standard (CCV-1)

QC Batch: 74380

Date Analyzed: 2010-10-13

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.6	99	85 - 115	2010-10-13

Report Date: October 14, 2010
114-6400626

Work Order: 10100710
COG/Loco Hills SWD #35

Page Number: 27 of 27
Eddy County, NM

Standard (ICV-1)

QC Batch: 74381

Date Analyzed: 2010-10-13

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.0	99	85 - 115	2010-10-13

Standard (CCV-1)

QC Batch: 74381

Date Analyzed: 2010-10-13

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	2010-10-13

WO#: 10100710

Analysis Request of Chain of Custody Record

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

PAGE: 1 OF: 7

 ANALYSIS REQUEST
 (Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavares

PROJECT NO.:

114-6400626

PROJECT NAME:

COG / Lower Hills SWD #35

LAB I.D.
NUMBERDATE
2010

TIME

MATRIX

COMP

GRAB

 Eddy Co., NM
 SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

PRESERVATIVE
METHOD

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

PCRA 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. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCB's 8060/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

246843

195

S

X

BH-1 0-1'

1

X

844

BH-1 3'

1

X

845

BH-1 5'

1

X

846

BH-1 7'

1

X

847

BH-1 10'

1

X

848

BH-1 15'

1

X

849

BH-1 20'

1

X

850

BH-1 25'

1

X

851

BH-1 30'

1

X

852

BH-1 40'

1

X

RELINQUISHED BY: (Signature)

Date:

10/15/10

Time:

10:10

RECEIVED BY: (Signature)

Date:

10/15/10

Time:

10:10

SAMPLED BY: (Print & Initial)

Kim

Date:

10/15/10

Time:

10:10

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:

TETRA TECH CONTACT PERSON:

Ike Tavares

Results by:

RUSH Charges
Authorized

Yes

No

RECEIVING LABORATORY: Tetra Tech

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

3.4% intact

REMARKS:

Xall 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.

WO #: 10100710

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 7



TETRA TECH

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavares

PROJECT NO.:

114-6400626

PROJECT NAME:

COG / Loco Hills SWO #35

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP

GRAB

246853

10/5

S

X

854

855

856

857

858

859

WO #: 10100710

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 7



TETRA TECH

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Taveraz

PROJECT NO.:

114-6400626

PROJECT NAME:

COG / Lone Hills SWO #35

LAB I.D.
NUMBER

DATE
2010

TIME

MATRIX

COMP

GRAB

Eddy Co NM
SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

ROHA 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. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCB's 8080/808

Pest. 808/808

Chlorides

Gamma Spec

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

246873

10/5

S

X

BH-4

5'

1

X

X

874

BH-4

7'

1

875

BH-4

10'

1

876

BH-4

15'

1

877

BH-4

20'

1

878

BH-5

0-1'

1

879

BH-5

3'

1

880

BH-5

5'

1

881

BH-5

7'

1

882

BH-5

10'

1

WO #: 10100710

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 7



TETRA TECH

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tovar

PROJECT NO.:

114-6400-26

PROJECT NAME:

Loco Hills SWD #35

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP

GRAB

246883

10/5

S

X

884

885

886

887

888

W0 #: 10100710

Analysis Request of Chain of Custody Record

PAGE: 6 OF: 7



TETRA TECH

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

CLIENT NAME:

SITE MANAGER:

PROJECT NO.:

PROJECT NAME:

PRESERVATIVE METHOD

LAB I.D. NUMBER

DATE

TIME

MATRIX

COMP

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS
FILTERED (Y/N)

HCL

HNO3

ICE

NONE

BTDX 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 W Pd Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/824

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: 10-7-10

Time: 10:05

RECEIVED BY: (Signature)

Date: 10-7-10

Time: 10:05

SAMPLED BY: (Print & Initial)

Date: 10-7-10

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

FEDEX

BUS

HAND DELIVERED

UPS

OTHER:

RECEIVING LABORATORY:

ADDRESS

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

3.4°C intact

Ike Tavaraz

Results by:

RUSH Charges

Authorized:

Yes

No

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

WO #: 10100710

Analysis Request of Chain of Custody Record



TETRA TECH

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

PAGE: 7 OF: 7

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

CDL

SITE MANAGER:

Ike Tavaraz

PROJECT NO.:

114-6400626

PROJECT NAME:

Law Hills SWD #35

Eddy Co NM
SAMPLE IDENTIFICATION

LAB I.D.
NUMBER

DATE
2010

TIME

MATRIX

COMP

GRAB

NUMBER OF CONTAINERS
FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

BTX 8021B
TPH 8015 MOD. TX1005 (Ext. to C35)
PAH 8270
PCRA 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. 8270/825
PCB's 8080/608
Pest. 808/608
Chloride
Gamma Spec.
Alpha Beta (Air)
PLM (Asbestos)
Major Anions/Cations, pH, TDS

246903

10/5

S

X

BH-7

20'

1

X

904

↓

↓

↓

BH-7

25'

↓

↓

905

↓

↓

↓

BH-7

30'

↓

↓

RELINQUISHED BY: (Signature)

[Signature]

Date: 10-5-10

Time: 10:05

RECEIVED BY: (Signature)

[Signature]

Date: 10-5-10

Time: 10:25

SAMPLED BY: (Print & Initial)

Kim

Date: 10-5-10

Time: _____

RELINQUISHED BY: (Signature)

Date: _____

Time: _____

RECEIVED BY: (Signature)

[Signature]

Date: _____

Time: _____

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS
HAND DELIVERED UPS

AIRBILL #: _____

OTHER: _____

RELINQUISHED BY: (Signature)

Date: _____

Time: _____

RECEIVED BY: (Signature)

[Signature]

Date: _____

Time: _____

TETRA TECH CONTACT PERSON:

Ike Tavaraz

Results by:

RUSH Charges
Authorized:
Yes No

RECEIVING LABORATORY:

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

3.4°C intact

REMARKS:

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