SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	**Honeygraham/Graham Nash Gathering Line**					
Company:	**COG Operating LLC**					
Section, Township and Range	**Unit D**	**Sec 29**	**T26S**	**R28E**		
Lease Number:	**API-30-015-38488, 30-15-37595, 30-15-37498**					
County:	**Eddy County**					
GPS:	**32.01920° N**			**104.11604° W**		
Surface Owner:	State					
Mineral Owner:						
Directions:	South of Malaga at the intersection of Hwy 285 and CR 724 (White City Rd), travel west on CR 724 for 2.9 miles, turn left (south) and travel 2.9 miles, turn left (east) and travel 0.2 mile to the site on the south side of the lease road.					

Release Data:

Date Released:	4/15/2013
Type Release:	Produced Water
Source of Contamination:	Gathering Line
Fluid Released:	100 bbls
Fluids Recovered:	40 bbls

Official Communication:

Name:	Pat Ellis		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	One Concho Center		1910 N. Big Spring
	600 W. Illinois Ave.		
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 682-4559
Fax:	(432) 684-7137		
Email:	pellis@conchoresources.com		ike.tavarez@tetratech.com

Ranking Criteria

Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	20
50-99 ft	10	
>100 ft.	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:	**20**

Acceptable Soil RRAL (mg/kg)		
Benzene	***Total BTEX***	***TPH***
10	50	100

TETRA TECH

September 25, 2013

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Re: Closure Request for the COG Operating LLC., Honey Graham/Graham Nash Gathering Line, Unit D, Section 29, Township 26 South, Range 28 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 Honey Graham/Graham Nash Gathering Line located in Unit D, Section 29, Township 26 South, Range 28 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.01920°, W 104.11604°. 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 April 15, 2013, and released approximately one hundred (100) barrels of produced water from a gathering line. To alleviate the problem, COG personnel replaced the line. Forty (40) barrels of standing fluids were recovered. The spill initiated and remained in the pasture and impacted an area that measured approximately 15' x 55', 95' x 115', 70' x 110', 25' x 55', 10' x 85', 85' x 130' and 40' x 45'. The initial C-141 form is enclosed in Appendix A.

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

Hydrogeology and Groundwater

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

According to the USGS, no water wells are listed in Section 29. One water well is reported in Section 22, with a depth to groundwater of 120.0' bgs. According to the NMOCD groundwater map the reported depth to groundwater in this area is approximately 50.0' below surface. The groundwater data is shown in Appendix B.

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 100 mg/kg.

Soil Assessment and Analytical Results

On May 15, 2013, Tetra Tech personnel inspected and sampled the spill area. Thirteen (13) auger holes (AH-1 through AH-13) and two (2) background samples were installed using a stainless steel hand auger to assess the impacted soils. Selected 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 C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

TETRA TECH

Referring to Table 1, elevated chlorides were detected in all auger hole samples. Due to the geology of the area and the location of the spill, the background samples show elevated chloride concentrations that are native to this specific area. The spill area is located in a natural drainage or run-off as shown on Figure 4.

Background 1 shows surface chlorides of 7,380 mg/kg and bottom hole samples of 2,540 mg/kg at 7.5' bgs. Background 2 shows surface chlorides of 3,770 mg/kg and bottom hole samples of 3,330 mg/kg at 7.5' bgs.

Closure Request

Due to site location and background chloride concentrations, the chloride detected are comparable to the natural chloride detected in the surrounding soils. Based on the results, COG proposes to leave the soils in place due to the elevated background chloride concentrations.

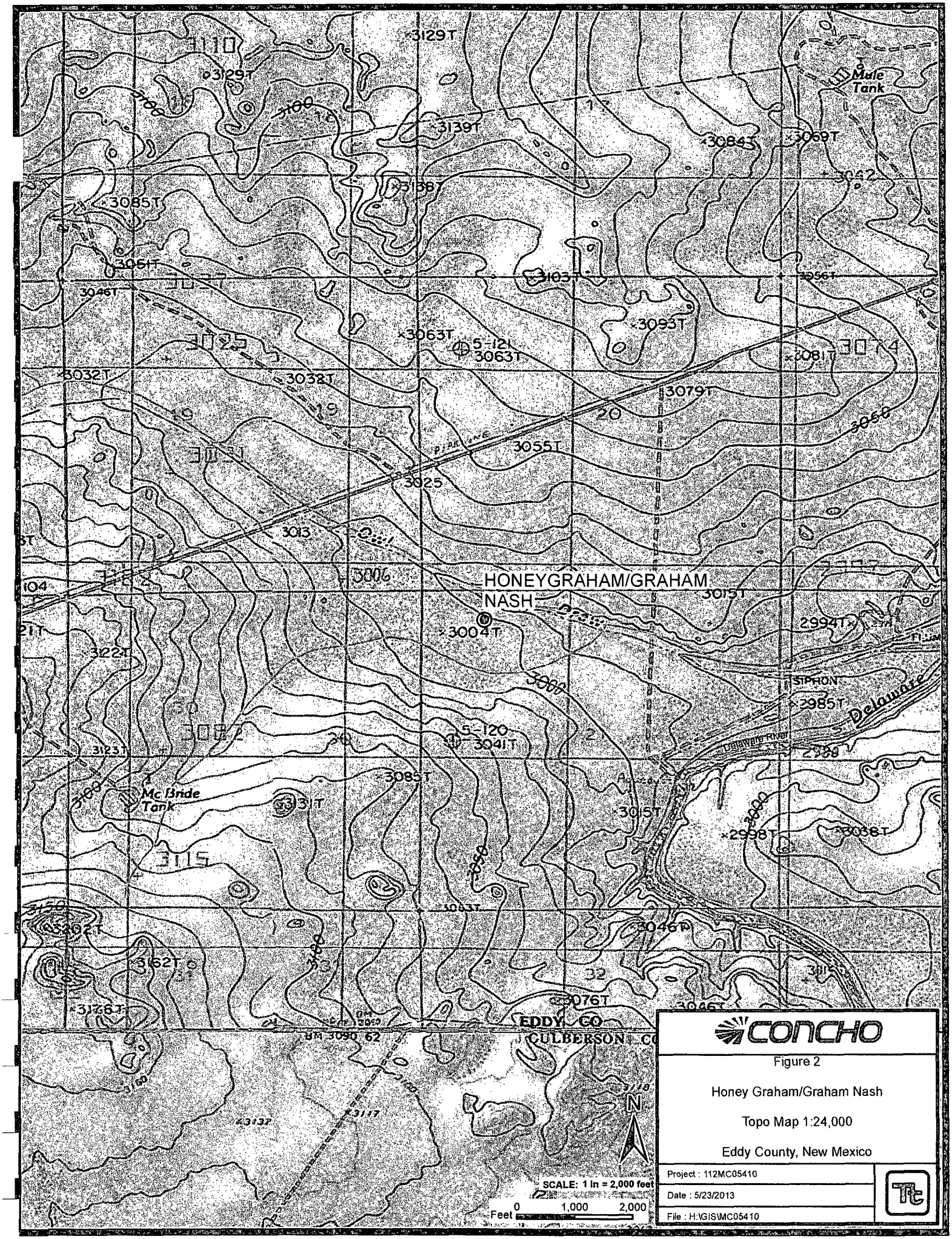
If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez, PG
Senior Project Manager

cc: Robert McNeill – COG

Figures



CONCHO

Figure 2

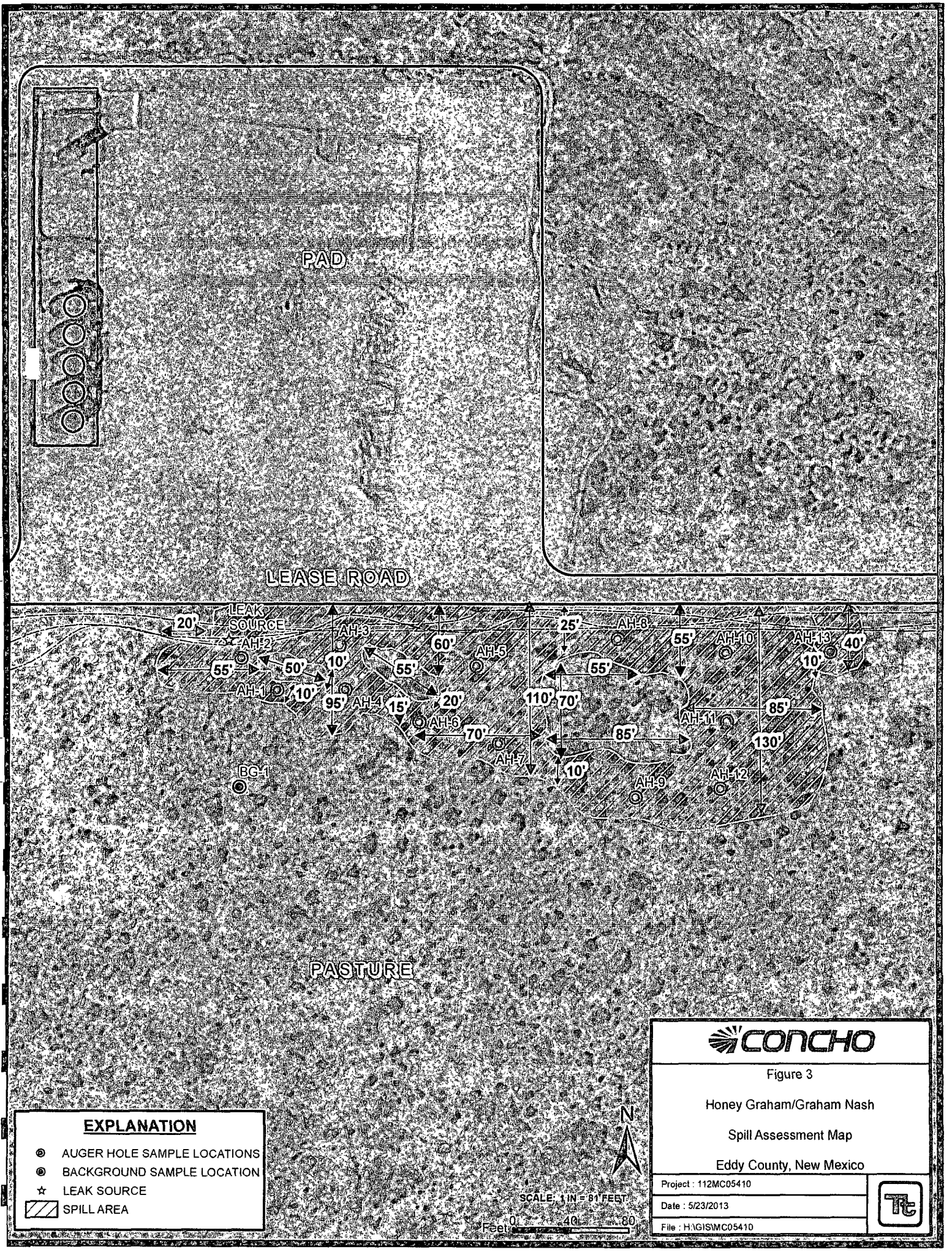
Honey Graham/Graham Nash

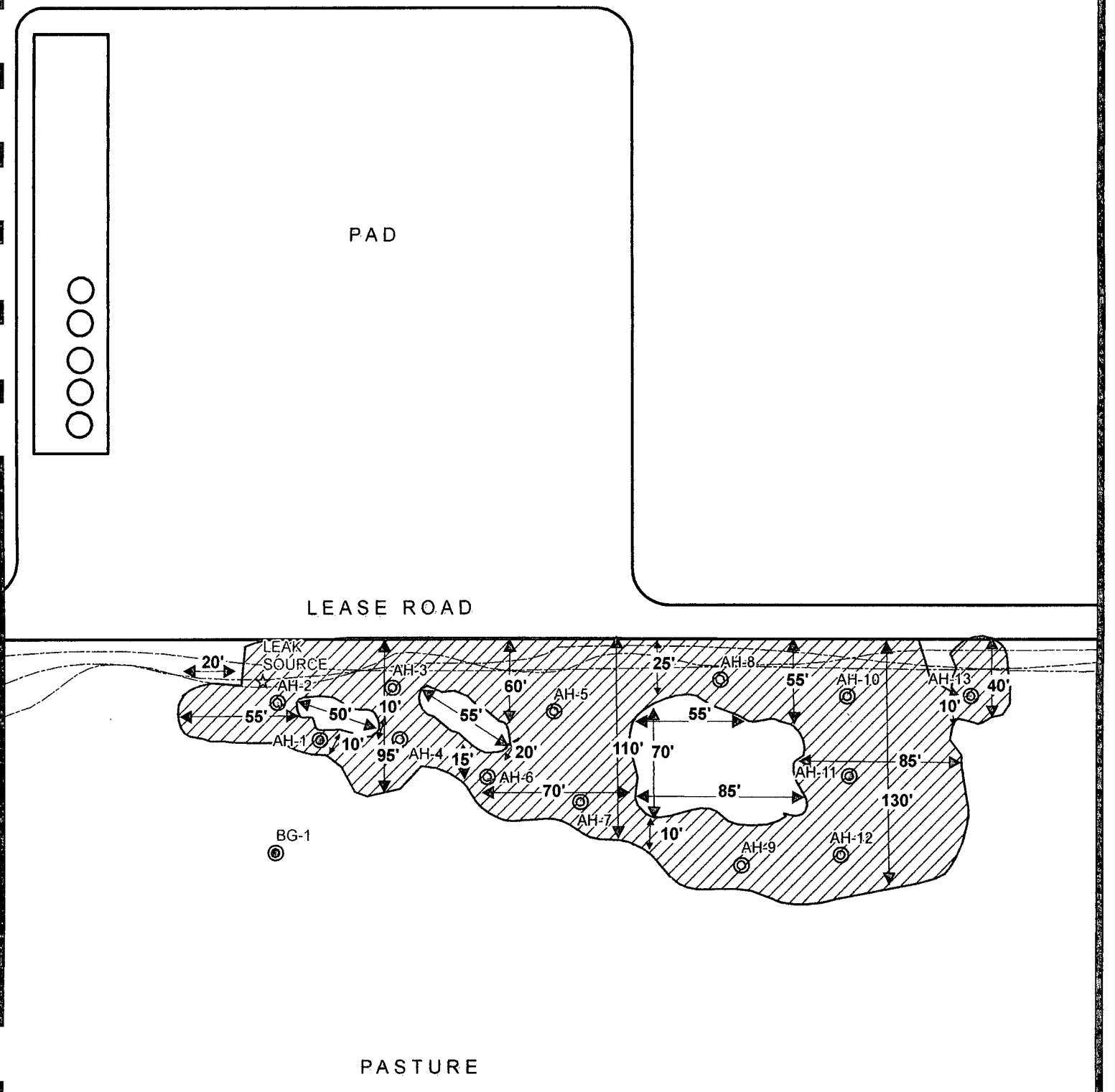
Topo Map 1:24,000

Eddy County, New Mexico

Project : 112MC05410	
Date : 5/23/2013	
File : H:\GIS\MC05410	

Drawn By: Isabel Marmolejo


PAD
LEASE ROAD
LEAK SOURCE
AH-1
AH-2
AH-3
AH-4
AH-5
AH-6
AH-7
AH-8
AH-9
AH-10
AH-11
AH-12
AH-13
BG-1
PASTURE
20'
55'
50'
10'
95'
60'
15'
70'
25'
110'
85'
130'
40'
EXPLANATION
AUGER HOLE SAMPLE LOCATIONS
BACKGROUND SAMPLE LOCATION
LEAK SOURCE
SPILL AREA
N
SCALE: 1 IN = 81 FEET
Feet 0 40 80
CONCHO
Figure 3
Honey Graham/Graham Nash
Spill Assessment Map
Eddy County, New Mexico
Project : 112MC05410
Date : 5/23/2013
File : H:\GIS\MC05410
Drawn By: Isabel Marmolejo



EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- BACKGROUND SAMPLE LOCATION
- LEAK SOURCE
- SPILL AREA

N

SCALE: 1 IN = 81 FEET

Feet 0 40 80

CONCHO

Figure 3

Honey Graham/Graham Nash

Spill Assessment Map

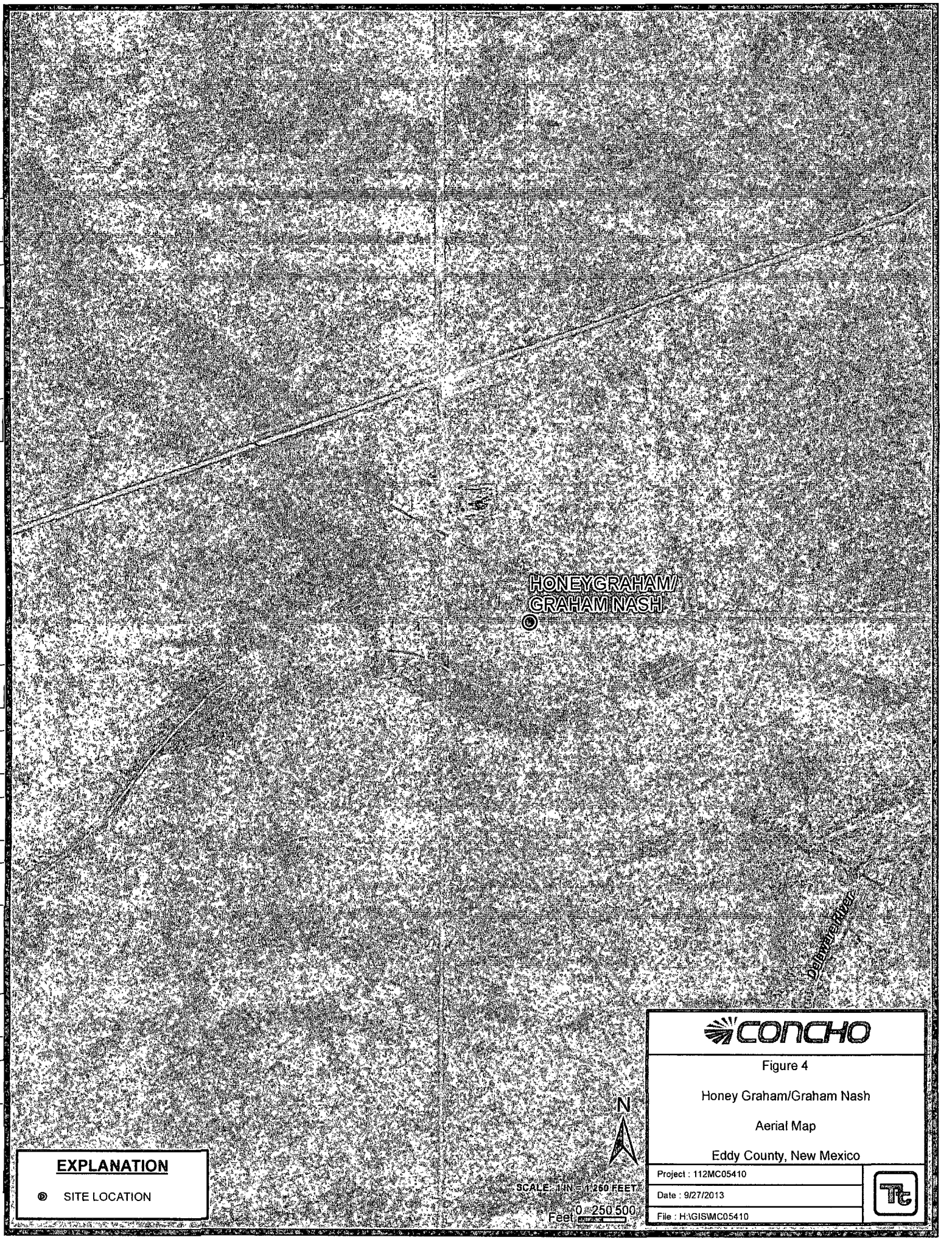
Eddy County, New Mexico

Project : 112MC05410

Date : 5/23/2013

File : H:\GIS\MC05410

Drawn By: Isabel Marmolejo



EXPLANATION

SITE LOCATION

N

SCALE: 1 IN = 1,250 FEET

0 250 500

Feet

CONCHO

Figure 4

Honey Graham/Graham Nash

Aerial Map

Eddy County, New Mexico

Project : 112MC05410	
Date : 9/27/2013	
File : H:\GIS\MC05410	

Drawn By: Isabel Marmolejo

Tables

Table 1
COG Operating LLC.
Honey Graham/ Graham Nash
Eddy County, New Mexico

Sample ID	Sample Date	BEB Sample Depth (ft)	Excavation Bottom Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-1	5/16/2013	0-1	0	X		4.47	<50.0	4.47	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,110
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	3,470
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	2,740
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	4,120
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	3,670
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	3,010
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	2,610
	"	7-7.5	"	X		-	-	-	-	-	-	-	-	1,630
AH-2	5/16/2013	0-1	0	X		4.57	<50.0	4.57	-	-	-	-	-	1,170
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	3,300
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	3,980
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	4,730
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	3,550
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	2,720
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	3,090
	"	7-7.5	"	X		-	-	-	-	-	-	-	-	1,940
AH-3	5/16/2013	0-1	0	X		4.68	<50.0	4.68	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,220
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	3,450
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	3,160
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	3,040
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	2,440
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	1,980
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	1,200
	"	7-7.5	"	X		-	-	-	-	-	-	-	-	1,100

Table 1
COG Operating LLC.
Honey Graham/ Graham Nash
Eddy County, New Mexico

Sample ID	Sample Date	BEB Sample Depth (ft)	Excavation Bottom Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-4	5/16/2013	0-1	0	X		4.56	<50.0	4.56	-	-	-	-	-	2,220
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	3,350
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	975
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	3,820
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	3,180
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	2,790
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	2,820
	"	7-7.5	"	X		-	-	-	-	-	-	-	-	2,040
AH-5	5/16/2013	0-1	0	X		4.42	<50.0	4.42	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	7,680
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	9,320
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	4,130
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	3,220
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	3,590
AH-6	5/16/2013	0-1	0	X		4.58	<50.0	4.58	-	-	-	-	-	2,010
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	2,910
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	3,650
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	1,990
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	1,490

Table 1
COG Operating LLC.
Honey Graham/ Graham Nash
Eddy County, New Mexico

Sample ID	Sample Date	BEB Sample Depth (ft)	Excavation Bottom Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-7	5/16/2013	0-1	0	X		4.58	<50.0	4.58	-	-	-	-	-	1,460
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	1,800
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	2,110
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	2,250
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	1,130
AH-8	5/16/2013	0-1	0	X		4.62	<50.0	4.62	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	8,270
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	5,220
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	7,140
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	7,130
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	4,560
AH-9	5/16/2013	0-1	0	X		4.32	<50.0	4.32	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	412
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	2,220
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	2,680
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	2,390
AH-10	5/16/2013	0-1	0	X		4.29	<50.0	4.29	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	7,220
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	7,370
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	7,650
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	7,230
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	8,110
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	5,080
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	4,310

Table 1
COG Operating LLC.
Honey Graham/ Graham Nash
Eddy County, New Mexico

Sample ID	Sample Date	BEB Sample Depth (ft)	Excavation Bottom Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-11	5/16/2013	0-1	0	X		4.72	<50.0	4.72	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	5,300
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	3,590
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	2,920
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	1,990
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	1,820
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	1,220
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	1,150
AH-12	5/16/2013	0-1	0	X		4.60	<50.0	4.60	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	78.5
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	1,190
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	1,760
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	1,540
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	1,650
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	1,380
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	1,450
AH-13	5/16/2013	0-1	0	X		4.39	<50.0	4.39	-	-	-	-	-	7,260
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	7,230
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	5,950
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	4,960
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	4,350
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	3,290
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	3,130

Table 1
COG Operating LLC.
Honey Graham/ Graham Nash
Eddy County, New Mexico

Sample ID	Sample Date	BEB Sample Depth (ft)	Excavation Bottom Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
Background 1	5/15/2013	0-1	0	X		-	-	-	-	-	-	-	-	7,380
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	3,420
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	2,710
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	2,610
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	1,740
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	1,110
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	1,480
	"	7-7.5	"	X		-	-	-	-	-	-	-	-	2,540
Background 2	5/30/2013	0-1	0	X		-	-	-	-	-	-	-	-	3,770
	"	1-1.5	"	X		-	-	-	-	-	-	-	-	1,210
	"	2-2.5	"	X		-	-	-	-	-	-	-	-	2,920
	"	3-3.5	"	X		-	-	-	-	-	-	-	-	2,920
	"	4-4.5	"	X		-	-	-	-	-	-	-	-	3,460
	"	5-5.5	"	X		-	-	-	-	-	-	-	-	3,430
	"	6-6.5	"	X		-	-	-	-	-	-	-	-	3,100
	"	7-7.5	"	X		-	-	-	-	-	-	-	-	3,330

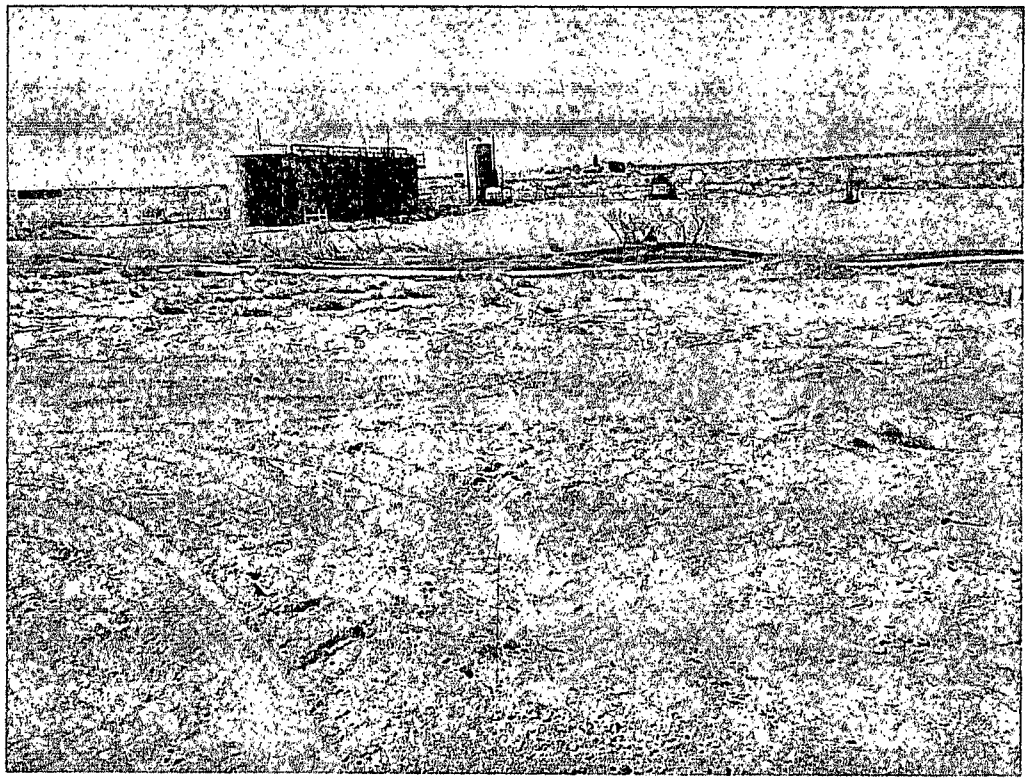
(-) Not Analyzed

(BEB) Below Excavation Bottom

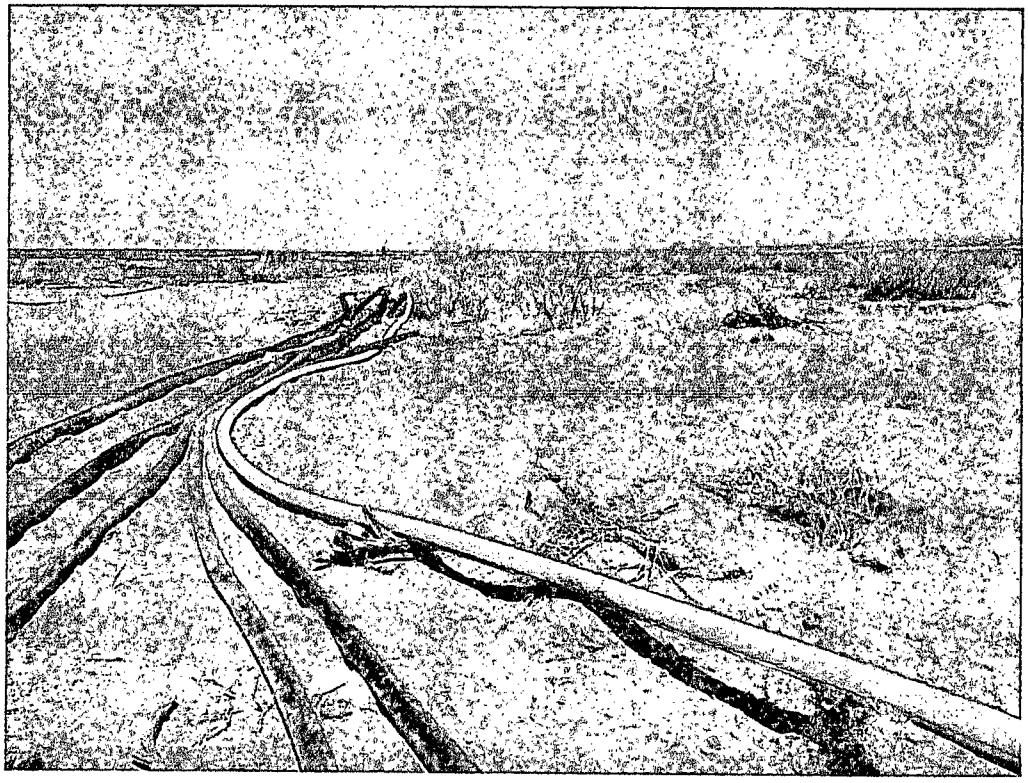
Photos

COG Operating LLC
Honeygraham – Graham Nash Gathering Line
Eddy County, New Mexico

TETRA TECH



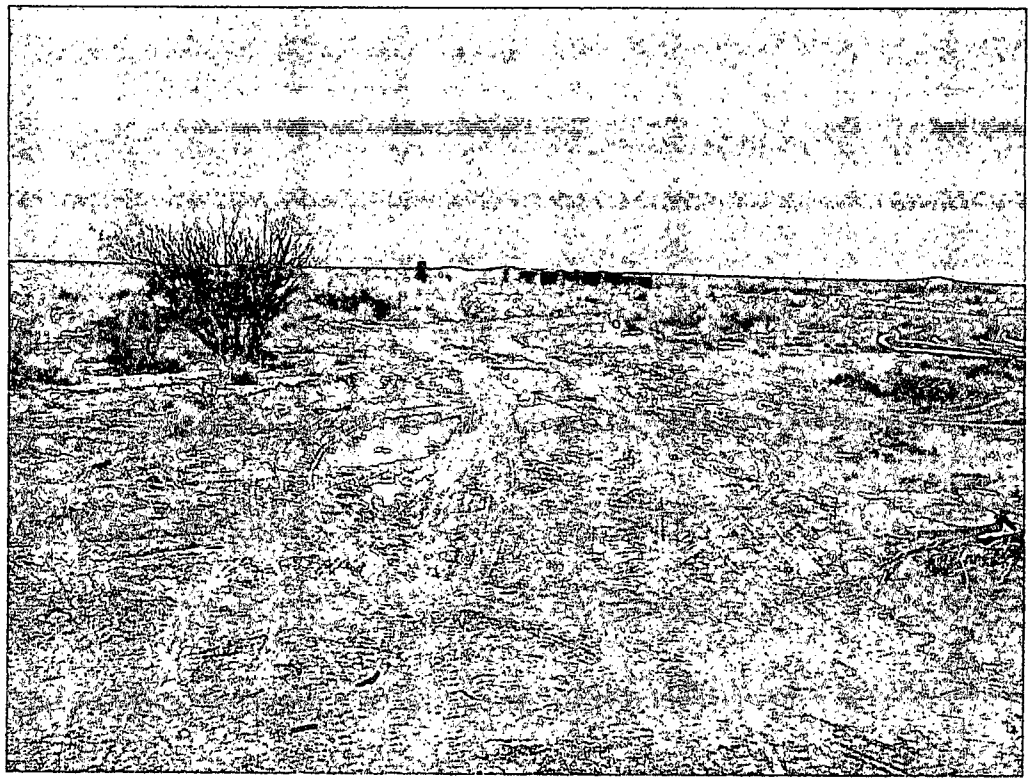
View North – View of AH-2



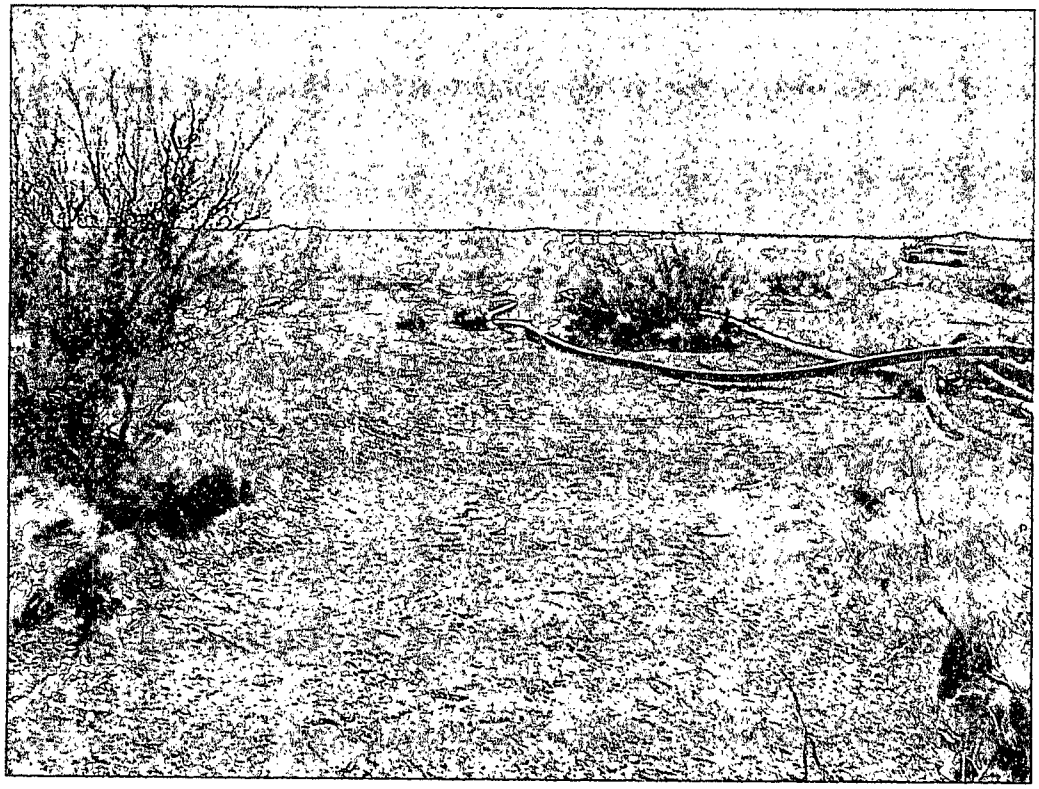
View East – Area of gathering lines

COG Operating LLC
Honeygraham – Graham Nash Gathering Line
Eddy County, New Mexico

TETRA TECH



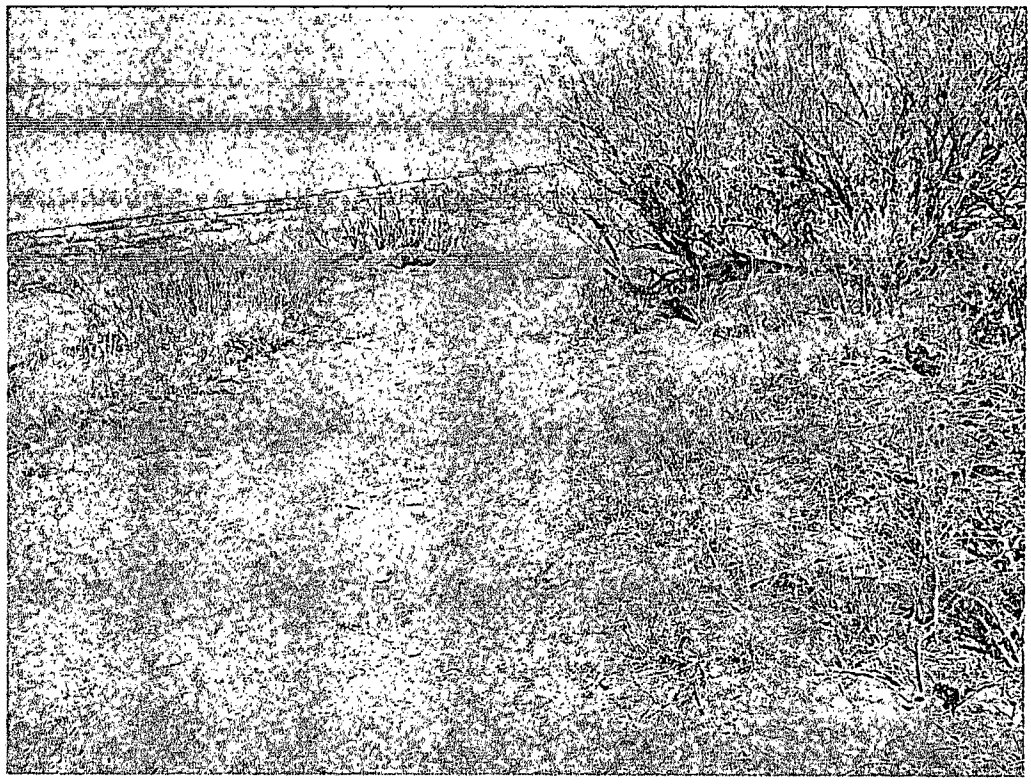
View West – Middle of spill area



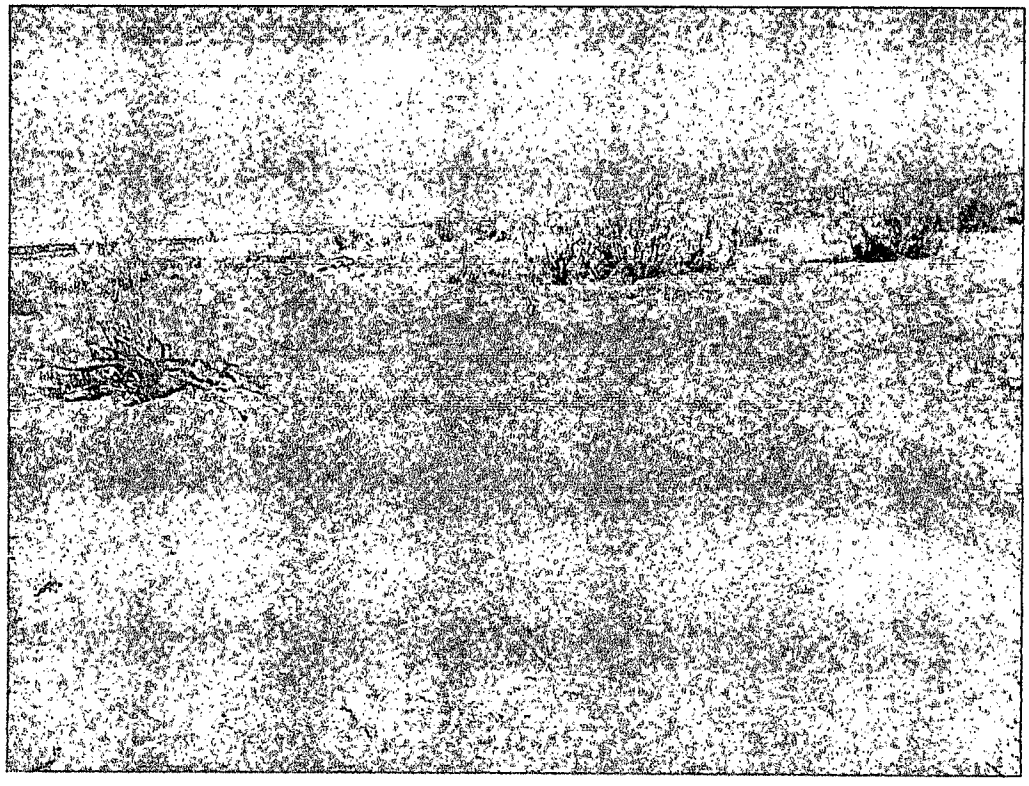
View West – South end of spill

COG Operating LLC
Honeygraham – Graham Nash Gathering Line
Eddy County, New Mexico

TETRA TECH



View East– Area of AH-13



View East – Area of AH-5

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	600 West Illinois Avenue, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	HONEYGRAHAM / GRAHAM NASH	Facility Type	GATHERING LINE

Surface Owner	Mineral Owner	Lease No.
STATE		(API#) 30-15-38488 HG #6 (API#) 30-15-37595 HG #7 (API#) 30-15-37498 GN #1

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	29	26S	28E					EDDY

Latitude 32 01.178 **Longitude** 104 06.968

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 100bbls	Volume Recovered 40bbls
Source of Release Gathering line	Date and Hour of Occurrence 04/15/2013	Date and Hour of Discovery 04/15/2013 5:00pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Michelle Mullins	Date and Hour 04/16/2013 10:41am	
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.*

A 4" water gathering line fractured possibly due to sun fatigue and age. The 4" gathering line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

Initially an estimated 100bbls were released due to a fracture in a 4" gathering line in the pasture. We were able to recover 40bbls of produced water using a vacuum truck. The gathering line included the Honey Graham #6&7 and Graham Nash #1.Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a work plan to the NMOCD 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 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:	OIL CONSERVATION DIVISION	
Printed Name: Robert Grubbs Jr.	Approved by District Supervisor:	
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address: rgrubbs@concho.com	Conditions of Approval:	Attached ☐
Date: 04-30-2013 Phone: 432-661-6601		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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1220 South St. Francis Dr.
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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	**COG Operating LLC**	Contact	**Pat Ellis**
Address	**600 West Illinois Ave, Midland, Texas 79701**	Telephone No.	**(432) 230-0077**
Facility Name	**Honey Graham / Graham Nash**	Facility Type	**Gathering Line**

Surface Owner: Federal	Mineral Owner	Lease No. (API#) 30-15-38488 HG#6 (API#) 30-15-37595 HG#7 (API#) 30-15-37498 GN#1

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	29	26S	28E					EDDY

Latitude N 32.01906° **Longitude** W 104.11605°

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 100 bbls	Volume Recovered 40 bbls
Source of Release: Gathering Line	Date and Hour of Occurrence 4/15/2013	Date and Hour of Discovery 4/15/2013
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Mike Bratcher - NMOCD**	
By Whom? Michelle Mullins	Date and Hour 4/16/2013 10:41 a.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.*

A 4" water gathering line fractured possible due to sun fatigue and age. The 4" gathering line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personnel inspected the site and collected samples to define the spills extent. Due to the geology of the area, surface chlorides were higher than the samples collected. Tetra Tech prepared closure report and submitted to 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:	OIL CONSERVATION DIVISION	
Printed Name: Ike Tavarez	Approved by District Supervisor:	
Title: Project Manager	Approval Date:	Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:	Attached ☐
Date: 9-25-13 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG-Honeygraham/Graham Nash
Eddy County, New Mexico

24 South 27 East

6	5	4	3	2	1
7	8 **26**	9 **43**	10	11	12 **27**
18 **34**	17	16	15	14	13 **31**
19	20	21	22 **70**	23	24
30	29	28	27	26	25
31	32	33	34	35	36

24 South 28 East

6 **70**	5 **30**	4 **30**	3	2 **55**	1 **60**
7	8 **60**	9	10 **17**	11 **20**	12 **73**
18	17 **42**	16 **29**	15 **18**	14 **52**	13 **34**
19	20 **48**	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

24 South 29 East

6	5	4	3	2	1
7 **160**	8	9	10	11	12
18	17	16 **18**	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

25 South 27 East

6	5	4	3	2	1
7	8	9	10	11	12 **92**
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33 **19**	34	35	36

25 South 28 East

6	5 **59**	4 **35**	3 **32**	2	1
7	8	9	10	11	12
18 **67**	17	16	15 **48** **49**	14	13
19	20 **96**	21	22	23	24
30	29 **15**	28 **90**	27	26 **30**	25
31	32	33	34	35	36 **40**

25 South 29 East

6 **40**	5	4	3	2	1
7	8	9	10 **40**	11	12
18	17	16	15 **60**	14	13
19	20	21	22	23	24
30 **30**	29	28	27	26	25
31	32 **115**	33	34	35	36

26 South 27 East

6	5 **12**	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13 **35**
19	20	21	22 **50**	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South 28 East

6	5	4	3	2 **120** **21**	1
7	8	9	10	11	12 **100**
18	17	16	15	14 **120**	13 **68**
19	20	21	22 **120**	23	24
30	29 SITE	28	27	26	25
31	32	33	34	35	36

26 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16 **125**	15	14	13
19	20	21	22 **67** **69**	23	24
30	29	28	27	26	25
31	32	33	34	35	36

- New Mexico State Engineers Well Reports
- USGS Well Reports
- Geology and Groundwater Conditions in Southern Eddy, County, NM
- NMOCD - Groundwater Data
- Field water level
- New Mexico Water and Infrastructure Data System

Appendix C

Summary Report

(Corrected Report)

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

Report Date: May 30, 2013

Work Order: 13052002

Project Location: Eddy Co., NM
Project Name: COG/Honey Graham/Graham Nash
Project Number: 112MC05410

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329652	AH-1 0-1'	soil	2013-05-16	00:00	2013-05-17
329653	AH-1 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329654	AH-1 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329655	AH-1 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329656	AH-1 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329657	AH-1 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329658	AH-1 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329659	AH-1 7-7.5'	soil	2013-05-16	00:00	2013-05-17
329660	AH-2 0-1'	soil	2013-05-16	00:00	2013-05-17
329661	AH-2 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329662	AH-2 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329663	AH-2 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329664	AH-2 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329665	AH-2 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329666	AH-2 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329667	AH-2 7-7.5'	soil	2013-05-16	00:00	2013-05-17
329668	AH-3 0-1'	soil	2013-05-16	00:00	2013-05-17
329669	AH-3 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329670	AH-3 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329671	AH-3 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329672	AH-3 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329673	AH-3 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329674	AH-3 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329675	AH-3 7-7.5'	soil	2013-05-16	00:00	2013-05-17
329676	AH-4 0-1'	soil	2013-05-16	00:00	2013-05-17
329677	AH-4 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329678	AH-4 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329679	AH-4 3-3.5'	soil	2013-05-16	00:00	2013-05-17

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329680	AH-4 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329681	AH-4 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329682	AH-4 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329683	AH-4 7-7.5'	soil	2013-05-16	00:00	2013-05-17
329684	AH-5 0-1'	soil	2013-05-16	00:00	2013-05-17
329685	AH-5 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329686	AH-5 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329687	AH-5 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329688	AH-5 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329689	AH-6 0-1'	soil	2013-05-16	00:00	2013-05-17
329690	AH-6 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329691	AH-6 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329692	AH-6 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329693	AH-6 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329694	AH-7 0-1'	soil	2013-05-16	00:00	2013-05-17
329695	AH-7 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329696	AH-7 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329697	AH-7 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329698	AH-7 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329699	AH-8 0-1'	soil	2013-05-16	00:00	2013-05-17
329700	AH-8 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329701	AH-8 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329702	AH-8 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329703	AH-8 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329704	AH-9 0-1'	soil	2013-05-16	00:00	2013-05-17
329705	AH-9 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329706	AH-9 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329707	AH-9 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329708	AH-9 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329709	AH-10 0-1'	soil	2013-05-16	00:00	2013-05-17
329710	AH-10 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329711	AH-10 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329712	AH-10 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329713	AH-10 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329714	AH-10 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329715	AH-10 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329716	AH-11 0-1'	soil	2013-05-16	00:00	2013-05-17
329717	AH-11 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329718	AH-11 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329719	AH-11 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329720	AH-11 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329721	AH-11 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329722	AH-11 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329723	AH-12 0-1'	soil	2013-05-16	00:00	2013-05-17
329724	AH-12 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329725	AH-12 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329726	AH-12 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329727	AH-12 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329728	AH-12 5-5.5'	soil	2013-05-16	00:00	2013-05-17

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329729	AH-12 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329730	AH-13 0-1'	soil	2013-05-16	00:00	2013-05-17
329731	AH-13 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329732	AH-13 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329733	AH-13 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329734	AH-13 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329735	AH-13 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329736	AH-13 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329737	Background 1 0-1'	soil	2013-05-15	00:00	2013-05-17
329738	Background 1 1-1.5'	soil	2013-05-15	00:00	2013-05-17
329739	Background 1 2-2.5'	soil	2013-05-15	00:00	2013-05-17
329740	Background 1 3-3.5'	soil	2013-05-15	00:00	2013-05-17
329741	Background 1 4-4.5'	soil	2013-05-15	00:00	2013-05-17
329742	Background 5-5.5'	soil	2013-05-15	00:00	2013-05-17
329743	Background 6-6.5'	soil	2013-05-15	00:00	2013-05-17
329744	Background 7-7.5'	soil	2013-05-15	00:00	2013-05-17

	BTEX				TPH DRO - NEW	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
329652 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.47** Qs
329660 - AH-2 0-1'					<50.0	**4.57** Qs
329668 - AH-3 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.68** Qs
329676 - AH-4 0-1'					<50.0	**4.56** Qs
329684 - AH-5 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.42** Qs
329689 - AH-6 0-1'					<50.0	**4.58** Qs
329694 - AH-7 0-1'					<50.0	**4.58** Qs
329699 - AH-8 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.62** Qs
329704 - AH-9 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.32** Qs
329709 - AH-10 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.29** Qs
329716 - AH-11 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.72** Qs
329723 - AH-12 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.60** Qs
329730 - AH-13 0-1'					<50.0	**4.39** Qs

Sample: 329652 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**3110**	mg/Kg	4

Sample: 329653 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**3470**	mg/Kg	4

Sample: 329654 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2740**	mg/Kg	4

Sample: 329655 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**4120**	mg/Kg	4

Sample: 329656 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**3670**	mg/Kg	4

Sample: 329657 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**3010**	mg/Kg	4

Sample: 329658 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**2610**	mg/Kg	4

Sample: 329659 - AH-1 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**1630**	mg/Kg	4

Sample: 329660 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		**1170**	mg/Kg	4

Sample: 329661 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**3300**	mg/Kg	4

Sample: 329662 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**3980**	mg/Kg	4

Sample: 329663 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**4730**	mg/Kg	4

Sample: 329664 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**3550**	mg/Kg	4

Sample: 329665 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**2720**	mg/Kg	4

Sample: 329666 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**3090**	mg/Kg	4

Sample: 329667 - AH-2 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**1940**	mg/Kg	4

Sample: 329668 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		**3220**	mg/Kg	4

Sample: 329669 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**3450**	mg/Kg	4

Sample: 329670 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**3160**	mg/Kg	4

Sample: 329671 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**3040**	mg/Kg	4

Sample: 329672 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**2440**	mg/Kg	4

Sample: 329673 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**1980**	mg/Kg	4

Sample: 329674 - AH-3 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**1200**	mg/Kg	4

Sample: 329675 - AH-3 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**1100**	mg/Kg	4

Sample: 329676 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		**2220**	mg/Kg	4

Sample: 329677 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**3350**	mg/Kg	4

Sample: 329678 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**975**	mg/Kg	4

Sample: 329679 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**3820**	mg/Kg	4

Sample: 329680 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**3180**	mg/Kg	4

Sample: 329681 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**2790**	mg/Kg	4

Sample: 329682 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**2820**	mg/Kg	4

Sample: 329683 - AH-4 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**2040**	mg/Kg	4

Sample: 329684 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		**7680**	mg/Kg	4

Sample: 329685 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**9320**	mg/Kg	4

Sample: 329686 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**4130**	mg/Kg	4

Sample: 329687 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**3220**	mg/Kg	4

Sample: 329688 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**3590**	mg/Kg	4

Sample: 329689 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		**2010**	mg/Kg	4

Sample: 329690 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**2910**	mg/Kg	4

Sample: 329691 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**3650**	mg/Kg	4

Sample: 329692 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**1990**	mg/Kg	4

Sample: 329693 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1490**	mg/Kg	4

Sample: 329694 - AH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		**1460**	mg/Kg	4

Sample: 329695 - AH-7 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**1800**	mg/Kg	4

Sample: 329696 - AH-7 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2110**	mg/Kg	4

Sample: 329697 - AH-7 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**2250**	mg/Kg	4

Sample: 329698 - AH-7 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1130**	mg/Kg	4

Sample: 329699 - AH-8 0-1'

Param	Flag	Result	Units	RL
Chloride		**8270**	mg/Kg	4

Sample: 329700 - AH-8 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**5220**	mg/Kg	4

Sample: 329701 - AH-8 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**7140**	mg/Kg	4

Sample: 329702 - AH-8 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**7130**	mg/Kg	4

Sample: 329703 - AH-8 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**4560**	mg/Kg	4

Sample: 329704 - AH-9 0-1'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 329705 - AH-9 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**412**	mg/Kg	4

Sample: 329706 - AH-9 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2220**	mg/Kg	4

Sample: 329707 - AH-9 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**2680**	mg/Kg	4

Sample: 329708 - AH-9 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**2390**	mg/Kg	4

Sample: 329709 - AH-10 0-1'

Param	Flag	Result	Units	RL
Chloride		**7220**	mg/Kg	4

Sample: 329710 - AH-10 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**7370**	mg/Kg	4

Sample: 329711 - AH-10 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**7650**	mg/Kg	4

Sample: 329712 - AH-10 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**7230**	mg/Kg	4

Sample: 329713 - AH-10 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**8110**	mg/Kg	4

Sample: 329714 - AH-10 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**5080**	mg/Kg	4

Sample: 329715 - AH-10 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**4310**	mg/Kg	4

Sample: 329716 - AH-11 0-1'

Param	Flag	Result	Units	RL
Chloride		**5300**	mg/Kg	4

Sample: 329717 - AH-11 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**3590**	mg/Kg	4

Sample: 329718 - AH-11 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2920**	mg/Kg	4

Sample: 329719 - AH-11 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**1990**	mg/Kg	4

Sample: 329720 - AH-11 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1820**	mg/Kg	4

Sample: 329721 - AH-11 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**1220**	mg/Kg	4

Sample: 329722 - AH-11 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**1150**	mg/Kg	4

Sample: 329723 - AH-12 0-1'

Param	Flag	Result	Units	RL
Chloride		**78.5**	mg/Kg	4

Sample: 329724 - AH-12 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**1190**	mg/Kg	4

Sample: 329725 - AH-12 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**1760**	mg/Kg	4

Sample: 329726 - AH-12 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**1540**	mg/Kg	4

Sample: 329727 - AH-12 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1650**	mg/Kg	4

Sample: 329728 - AH-12 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**1380**	mg/Kg	4

Sample: 329729 - AH-12 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**1450**	mg/Kg	4

Sample: 329730 - AH-13 0-1'

Param	Flag	Result	Units	RL
Chloride		**7260**	mg/Kg	4

Sample: 329731 - AH-13 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**7230**	mg/Kg	4

Sample: 329732 - AH-13 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**5950**	mg/Kg	4

Sample: 329733 - AH-13 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**4960**	mg/Kg	4

Sample: 329734 - AH-13 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**4350**	mg/Kg	4

Sample: 329735 - AH-13 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**3290**	mg/Kg	4

Sample: 329736 - AH-13 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**3130**	mg/Kg	4

Sample: 329737 - Background 1 0-1'

Param	Flag	Result	Units	RL
Chloride		**7380**	mg/Kg	4

Sample: 329738 - Background 1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**3420**	mg/Kg	4

Sample: 329739 - Background 1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2710**	mg/Kg	4

Sample: 329740 - Background 1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**2610**	mg/Kg	4

Sample: 329741 - Background 1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1740**	mg/Kg	4

Sample: 329742 - Background 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**1110**	mg/Kg	4

Sample: 329743 - Background 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**1480**	mg/Kg	4

Sample: 329744 - Background 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**2540**	mg/Kg	4

TRACEANALYSIS, INC.

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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

(Corrected Report)

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

Report Date: May 30, 2013

Work Order: 13052002

Project Location: Eddy Co., NM
Project Name: COG/Honey Graham/Graham Nash
Project Number: 112MC05410

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
329652	AH-1 0-1'	soil	2013-05-16	00:00	2013-05-17
329653	AH-1 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329654	AH-1 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329655	AH-1 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329656	AH-1 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329657	AH-1 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329658	AH-1 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329659	AH-1 7-7.5'	soil	2013-05-16	00:00	2013-05-17
329660	AH-2 0-1'	soil	2013-05-16	00:00	2013-05-17
329661	AH-2 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329662	AH-2 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329663	AH-2 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329664	AH-2 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329665	AH-2 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329666	AH-2 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329667	AH-2 7-7.5'	soil	2013-05-16	00:00	2013-05-17

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329668	AH-3 0-1'	soil	2013-05-16	00:00	2013-05-17
329669	AH-3 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329670	AH-3 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329671	AH-3 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329672	AH-3 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329673	AH-3 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329674	AH-3 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329675	AH-3 7-7.5'	soil	2013-05-16	00:00	2013-05-17
329676	AH-4 0-1'	soil	2013-05-16	00:00	2013-05-17
329677	AH-4 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329678	AH-4 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329679	AH-4 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329680	AH-4 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329681	AH-4 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329682	AH-4 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329683	AH-4 7-7.5'	soil	2013-05-16	00:00	2013-05-17
329684	AH-5 0-1'	soil	2013-05-16	00:00	2013-05-17
329685	AH-5 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329686	AH-5 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329687	AH-5 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329688	AH-5 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329689	AH-6 0-1'	soil	2013-05-16	00:00	2013-05-17
329690	AH-6 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329691	AH-6 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329692	AH-6 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329693	AH-6 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329694	AH-7 0-1'	soil	2013-05-16	00:00	2013-05-17
329695	AH-7 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329696	AH-7 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329697	AH-7 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329698	AH-7 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329699	AH-8 0-1'	soil	2013-05-16	00:00	2013-05-17
329700	AH-8 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329701	AH-8 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329702	AH-8 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329703	AH-8 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329704	AH-9 0-1'	soil	2013-05-16	00:00	2013-05-17
329705	AH-9 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329706	AH-9 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329707	AH-9 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329708	AH-9 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329709	AH-10 0-1'	soil	2013-05-16	00:00	2013-05-17
329710	AH-10 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329711	AH-10 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329712	AH-10 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329713	AH-10 4-4.5'	soil	2013-05-16	00:00	2013-05-17

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329714	AH-10 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329715	AH-10 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329716	AH-11 0-1'	soil	2013-05-16	00:00	2013-05-17
329717	AH-11 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329718	AH-11 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329719	AH-11 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329720	AH-11 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329721	AH-11 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329722	AH-11 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329723	AH-12 0-1'	soil	2013-05-16	00:00	2013-05-17
329724	AH-12 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329725	AH-12 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329726	AH-12 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329727	AH-12 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329728	AH-12 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329729	AH-12 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329730	AH-13 0-1'	soil	2013-05-16	00:00	2013-05-17
329731	AH-13 1-1.5'	soil	2013-05-16	00:00	2013-05-17
329732	AH-13 2-2.5'	soil	2013-05-16	00:00	2013-05-17
329733	AH-13 3-3.5'	soil	2013-05-16	00:00	2013-05-17
329734	AH-13 4-4.5'	soil	2013-05-16	00:00	2013-05-17
329735	AH-13 5-5.5'	soil	2013-05-16	00:00	2013-05-17
329736	AH-13 6-6.5'	soil	2013-05-16	00:00	2013-05-17
329737	Background 1 0-1'	soil	2013-05-15	00:00	2013-05-17
329738	Background 1 1-1.5'	soil	2013-05-15	00:00	2013-05-17
329739	Background 1 2-2.5'	soil	2013-05-15	00:00	2013-05-17
329740	Background 1 3-3.5'	soil	2013-05-15	00:00	2013-05-17
329741	Background 1 4-4.5'	soil	2013-05-15	00:00	2013-05-17
329742	Background 5-5.5'	soil	2013-05-15	00:00	2013-05-17
329743	Background 6-6.5'	soil	2013-05-15	00:00	2013-05-17
329744	Background 7-7.5'	soil	2013-05-15	00:00	2013-05-17

Report Corrections (Work Order 13052002)

- 5/30/13: Reporting re-run of sample 329689 at 1x dilution.

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

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

Report Contents

Case Narrative

Samples for project COG/Honey Graham/Graham Nash were received by TraceAnalysis, Inc. on 2013-05-17 and assigned to work order 13052002. Samples for work order 13052002 were received intact at a temperature of 3.8 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	86209	2013-05-27 at 10:45	101749	2013-05-28 at 08:15
Chloride (Titration)	SM 4500-Cl B	86091	2013-05-21 at 10:22	101644	2013-05-22 at 14:41
Chloride (Titration)	SM 4500-Cl B	86091	2013-05-21 at 10:22	101645	2013-05-22 at 14:42
Chloride (Titration)	SM 4500-Cl B	86091	2013-05-21 at 10:22	101646	2013-05-22 at 14:42
Chloride (Titration)	SM 4500-Cl B	86091	2013-05-21 at 10:22	101647	2013-05-22 at 14:43
Chloride (Titration)	SM 4500-Cl B	86091	2013-05-21 at 10:22	101648	2013-05-22 at 14:44
Chloride (Titration)	SM 4500-Cl B	86091	2013-05-21 at 10:22	101649	2013-05-22 at 14:45
Chloride (Titration)	SM 4500-Cl B	86124	2013-05-22 at 10:39	101714	2013-05-23 at 11:14
Chloride (Titration)	SM 4500-Cl B	86124	2013-05-22 at 10:39	101715	2013-05-23 at 11:15
Chloride (Titration)	SM 4500-Cl B	86124	2013-05-22 at 10:39	101716	2013-05-24 at 11:16
Chloride (Titration)	SM 4500-Cl B	86124	2013-05-22 at 10:39	101717	2013-05-24 at 11:17
TPH DRO - NEW	S 8015 D	86150	2013-05-21 at 11:00	101673	2013-05-23 at 10:59
TPH DRO - NEW	S 8015 D	86291	2013-05-29 at 15:00	101846	2013-05-30 at 09:10
TPH GRO	S 8015 D	86200	2013-05-23 at 15:45	101739	2013-05-26 at 18:39

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 13052002 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 329652 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	Sample Preparation:	2013-05-27	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	70 - 130

Sample: 329652 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**3110**	mg/Kg	10	4.00

Sample: 329652 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			96.0	mg/Kg	1	100	96	55.1 - 135.7

Sample: 329652 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.47**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

Sample: 329653 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3470**	mg/Kg	10	4.00

Sample: 329654 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

continued ...

sample 329654 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2740**	mg/Kg	10	4.00

Sample: 329655 - AH-1 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4120**	mg/Kg	10	4.00

Sample: 329656 - AH-1 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3670**	mg/Kg	10	4.00

Sample: 329657 - AH-1 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3010**	mg/Kg	10	4.00

Sample: 329658 - AH-1 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2610**	mg/Kg	10	4.00

Sample: 329659 - AH-1 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1630**	mg/Kg	10	4.00

Sample: 329660 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1170**	mg/Kg	10	4.00

Sample: 329660 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			96.3	mg/Kg	1	100	96	55.1 - 135.7

Sample: 329660 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.57**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.78	mg/Kg	1	2.00	89	70 - 130
4-Bromofluorobenzene (4-BFB)			1.70	mg/Kg	1	2.00	85	70 - 130

Sample: 329661 - AH-2 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101644	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3300**	mg/Kg	10	4.00

Sample: 329662 - AH-2 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3980**	mg/Kg	10	4.00

Sample: 329663 - AH-2 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4730**	mg/Kg	10	4.00

Sample: 329664 - AH-2 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3550**	mg/Kg	10	4.00

Sample: 329665 - AH-2 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2720**	mg/Kg	10	4.00

Sample: 329666 - AH-2 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3090**	mg/Kg	10	4.00

Sample: 329667 - AH-2 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1940**	mg/Kg	10	4.00

Sample: 329668 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	Sample Preparation:	2013-05-27	Prepared By:	AH

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

continued ...

sample 329668 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.81	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.86	mg/Kg	1	2.00	93	70 - 130

Sample: 329668 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3220**	mg/Kg	10	4.00

Sample: 329668 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	167	mg/Kg	1	100	167	55.1 - 135.7

Sample: 329668 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.68**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			1.75	mg/Kg	1	2.00	88	70 - 130

Sample: 329669 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3450**	mg/Kg	10	4.00

Sample: 329670 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3160**	mg/Kg	10	4.00

Sample: 329671 - AH-3 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101645	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3040**	mg/Kg	10	4.00

Sample: 329672 - AH-3 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2440**	mg/Kg	10	4.00

Sample: 329673 - AH-3 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1980**	mg/Kg	10	4.00

Sample: 329674 - AH-3 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1200**	mg/Kg	10	4.00

Sample: 329675 - AH-3 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**1100**		mg/Kg	10	4.00

Sample: 329676 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**2220**		mg/Kg	10	4.00

Sample: 329676 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			96.1	mg/Kg	1	100	96	55.1 - 135.7

Sample: 329676 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.56**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.81	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.71	mg/Kg	1	2.00	86	70 - 130

Sample: 329677 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3350**	mg/Kg	10	4.00

Sample: 329678 - AH-4 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**975**	mg/Kg	5	4.00

Sample: 329679 - AH-4 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3820**	mg/Kg	10	4.00

Sample: 329680 - AH-4 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3180**	mg/Kg	10	4.00

Sample: 329681 - AH-4 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101646	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2790**	mg/Kg	10	4.00

Sample: 329682 - AH-4 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2820**	mg/Kg	10	4.00

Sample: 329683 - AH-4 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2040**	mg/Kg	10	4.00

Sample: 329684 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	Sample Preparation:	2013-05-27	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.81	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.82	mg/Kg	1	2.00	91	70 - 130

Sample: 329684 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7680**	mg/Kg	10	4.00

Sample: 329684 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	140	mg/Kg	1	100	140	55.1 - 135.7

Sample: 329684 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.42**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.75	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	70 - 130

Sample: 329685 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**9320**	mg/Kg	10	4.00

Sample: 329686 - AH-5 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4130**	mg/Kg	10	4.00

Sample: 329687 - AH-5 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3220**	mg/Kg	10	4.00

Sample: 329688 - AH-5 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3590**	mg/Kg	10	4.00

Sample: 329689 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2010**	mg/Kg	10	4.00

Sample: 329689 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101846	Date Analyzed:	2013-05-30	Analyzed By:	CW
Prep Batch:	86291	Sample Preparation:	2013-05-29	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	55.1 - 135.7

Sample: 329689 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.58**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.81	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

Sample: 329690 - AH-6 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2910**	mg/Kg	10	4.00

Sample: 329691 - AH-6 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101647	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3650**	mg/Kg	10	4.00

Sample: 329692 - AH-6 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1990**	mg/Kg	10	4.00

Sample: 329693 - AH-6 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1490**	mg/Kg	10	4.00

Sample: 329694 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**1460**		mg/Kg	10	4.00

Sample: 329694 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			100	mg/Kg	1	100	100	55.1 - 135.7

Sample: 329694 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
GRO	B,Q8	1	**4.58**		mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

Sample: 329695 - AH-7 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1800**	mg/Kg	10	4.00

Sample: 329696 - AH-7 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2110**	mg/Kg	10	4.00

Sample: 329697 - AH-7 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2250**	mg/Kg	10	4.00

Sample: 329698 - AH-7 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1130**	mg/Kg	10	4.00

Sample: 329699 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	Sample Preparation:	2013-05-27	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.88	mg/Kg	1	2.00	94	70 - 130

Sample: 329699 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**8270**	mg/Kg	10	4.00

Sample: 329699 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		147	mg/Kg	1	100	147	55.1 - 135.7

Sample: 329699 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.62**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.73	mg/Kg	1	2.00	86	70 - 130

Sample: 329700 - AH-8 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5220**	mg/Kg	10	4.00

Sample: 329701 - AH-8 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7140**	mg/Kg	10	4.00

Sample: 329702 - AH-8 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7130**	mg/Kg	10	4.00

Sample: 329703 - AH-8 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4560**	mg/Kg	10	4.00

Sample: 329704 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	Sample Preparation:	2013-05-27	Prepared By:	AH

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

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sample 329704 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

Sample: 329704 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 329704 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			80.7	mg/Kg	1	100	81	55.1 - 135.7

Sample: 329704 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Q-	1	**4.32**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.71	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.63	mg/Kg	1	2.00	82	70 - 130

Sample: 329705 - AH-9 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**412**	mg/Kg	5	4.00

Sample: 329706 - AH-9 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2220**	mg/Kg	10	4.00

Sample: 329707 - AH-9 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2680**	mg/Kg	10	4.00

Sample: 329708 - AH-9 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2390**	mg/Kg	10	4.00

Sample: 329709 - AH-10 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	Sample Preparation:	2013-05-27	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.86	mg/Kg	1	2.00	93	70 - 130

Sample: 329709 - AH-10 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7220**	mg/Kg	10	4.00

Sample: 329709 - AH-10 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			86.5	mg/Kg	1	100	86	55.1 - 135.7

Sample: 329709 - AH-10 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Q3	1	**4.29**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)			1.60	mg/Kg	1	2.00	80	70 - 130

Sample: 329710 - AH-10 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7370**	mg/Kg	10	4.00

Sample: 329711 - AH-10 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	Sample Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7650**	mg/Kg	10	4.00

Sample: 329712 - AH-10 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7230**	mg/Kg	10	4.00

Sample: 329713 - AH-10 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**8110**	mg/Kg	10	4.00

Sample: 329714 - AH-10 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**5080**		mg/Kg	10	4.00

Sample: 329715 - AH-10 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**4310**		mg/Kg	10	4.00

Sample: 329716 - AH-11 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	Sample Preparation:	2013-05-27	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 329716 - AH-11 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5300**	mg/Kg	10	4.00

Sample: 329716 - AH-11 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			110	mg/Kg	1	100	110	55.1 - 135.7

Sample: 329716 - AH-11 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.72**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.75	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.75	mg/Kg	1	2.00	88	70 - 130

Sample: 329717 - AH-11 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3590**	mg/Kg	10	4.00

Sample: 329718 - AH-11 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2920**	mg/Kg	10	4.00

Sample: 329719 - AH-11 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1990**	mg/Kg	10	4.00

Sample: 329720 - AH-11 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1820**	mg/Kg	10	4.00

Sample: 329721 - AH-11 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1220**	mg/Kg	10	4.00

Sample: 329722 - AH-11 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1150**	mg/Kg	10	4.00

Sample: 329723 - AH-12 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	Sample Preparation:	2013-05-27	Prepared By:	AH

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

continued ...

sample 329723 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.86	mg/Kg	1	2.00	93	70 - 130

Sample: 329723 - AH-12 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**78.5**	mg/Kg	5	4.00

Sample: 329723 - AH-12 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			88.8	mg/Kg	1	100	89	55.1 - 135.7

Sample: 329723 - AH-12 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Q8	1	**4.60**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.73	mg/Kg	1	2.00	86	70 - 130

Sample: 329724 - AH-12 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1190**	mg/Kg	10	4.00

Sample: 329725 - AH-12 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1760**	mg/Kg	10	4.00

Sample: 329726 - AH-12 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**1540**		mg/Kg	10	4.00

Sample: 329727 - AH-12 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**1650**		mg/Kg	10	4.00

Sample: 329728 - AH-12 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**1380**		mg/Kg	10	4.00

Sample: 329729 - AH-12 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**1450**		mg/Kg	10	4.00

Sample: 329730 - AH-13 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7260**	mg/Kg	10	4.00

Sample: 329730 - AH-13 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	Sample Preparation:	2011-05-21	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			78.2	mg/Kg	1	100	78	55.1 - 135.7

Sample: 329730 - AH-13 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	Sample Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	R,Qs	1	**4.39**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.74	mg/Kg	1	2.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)			1.65	mg/Kg	1	2.00	82	70 - 130

Sample: 329731 - AH-13 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7230**	mg/Kg	10	4.00

Sample: 329732 - AH-13 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5950**	mg/Kg	10	4.00

Sample: 329733 - AH-13 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4960**	mg/Kg	10	4.00

Sample: 329734 - AH-13 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4350**	mg/Kg	10	4.00

Sample: 329735 - AH-13 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3290**	mg/Kg	10	4.00

Sample: 329736 - AH-13 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3130**	mg/Kg	10	4.00

Sample: 329737 - Background 1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7380**	mg/Kg	10	4.00

Sample: 329738 - Background 1 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3420**	mg/Kg	10	4.00

Sample: 329739 - Background 1 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2710**	mg/Kg	10	4.00

Sample: 329740 - Background 1 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2610**	mg/Kg	10	4.00

Sample: 329741 - Background 1 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1740**	mg/Kg	10	4.00

Sample: 329742 - Background 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101717	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1110**	mg/Kg	5	4.00

Sample: 329743 - Background 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101717	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1480**	mg/Kg	10	4.00

Sample: 329744 - Background 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	101717	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	Sample Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2540**	mg/Kg	10	4.00

Method Blanks

Method Blank (1) QC Batch: 101644

QC Batch: 101644 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101645

QC Batch: 101645 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101646

QC Batch: 101646 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101647

QC Batch: 101647 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101648

QC Batch:	101648	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	QC Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101649

QC Batch:	101649	Date Analyzed:	2013-05-22	Analyzed By:	AR
Prep Batch:	86091	QC Preparation:	2013-05-21	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101673

QC Batch:	101673	Date Analyzed:	2013-05-23	Analyzed By:	CW
Prep Batch:	86150	QC Preparation:	2013-05-21	Prepared By:	CW

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	13.3	mg/Kg	50

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		138	mg/Kg	1	100	138	55.1 - 135.7

Method Blank (1) QC Batch: 101714

QC Batch:	101714	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	QC Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101715

QC Batch:	101715	Date Analyzed:	2013-05-23	Analyzed By:	AR
Prep Batch:	86124	QC Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101716

QC Batch:	101716	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	QC Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101717

QC Batch:	101717	Date Analyzed:	2013-05-24	Analyzed By:	AR
Prep Batch:	86124	QC Preparation:	2013-05-22	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 101739

QC Batch:	101739	Date Analyzed:	2013-05-26	Analyzed By:	AH
Prep Batch:	86200	QC Preparation:	2013-05-23	Prepared By:	AH

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	4.42	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.78	mg/Kg	1	2.00	89	70 - 130
4-Bromofluorobenzene (4-BFB)			1.62	mg/Kg	1	2.00	81	70 - 130

Method Blank (1) QC Batch: 101749

QC Batch:	101749	Date Analyzed:	2013-05-28	Analyzed By:	AH
Prep Batch:	86209	QC Preparation:	2013-05-27	Prepared By:	AH

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00810	mg/Kg	0.02
Toluene		1	<0.00750	mg/Kg	0.02
Ethylbenzene		1	<0.00730	mg/Kg	0.02
Xylene		1	<0.00700	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1	2.00	90	70 - 130

Method Blank (1) QC Batch: 101846

QC Batch:	101846	Date Analyzed:	2013-05-30	Analyzed By:	CW
Prep Batch:	86291	QC Preparation:	2013-05-29	Prepared By:	CW

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<10.2	mg/Kg	50

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		137	mg/Kg	1	100	137	55.1 - 135.7

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 101644 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2650	mg/Kg	1	2500	<3.85	106	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2790	mg/Kg	1	2500	<3.85	112	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: 101645 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2730	mg/Kg	1	2500	<3.85	109	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2670	mg/Kg	1	2500	<3.85	107	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 101646 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2420	mg/Kg	1	2500	<3.85	97	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2520	mg/Kg	1	2500	<3.85	101	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: 101647 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2600	mg/Kg	1	2500	<3.85	104	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2430	mg/Kg	1	2500	<3.85	97	85 - 115	7	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: 101648 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2450	mg/Kg	1	2500	<3.85	98	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2660	mg/Kg	1	2500	<3.85	106	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: 101649 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2660	mg/Kg	1	2500	<3.85	106	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2540	mg/Kg	1	2500	<3.85	102	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: 101673 | Date Analyzed: 2013-05-23 | Analyzed By: CW
Prep Batch: 86150 | QC Preparation: 2013-05-21 | Prepared By: CW

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	260	mg/Kg	1	250	13.3	99	66.9 - 119.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	282	mg/Kg	1	250	13.3	107	66.9 - 119.9	8	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	Qsr	Qsr	155	166	mg/Kg	1	100	155	166	76.8 - 140.2

Laboratory Control Spike (LCS-1)

QC Batch: 101714 | Date Analyzed: 2013-05-23 | Analyzed By: AR
Prep Batch: 86124 | QC Preparation: 2013-05-22 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2690	mg/Kg	1	2500	<3.85	108	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2580	mg/Kg	1	2500	<3.85	103	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: 101715 | Date Analyzed: 2013-05-23 | Analyzed By: AR
Prep Batch: 86124 | QC Preparation: 2013-05-22 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2470	mg/Kg	1	2500	<3.85	99	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2590	mg/Kg	1	2500	<3.85	104	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: 101716 | Date Analyzed: 2013-05-24 | Analyzed By: AR
Prep Batch: 86124 | QC Preparation: 2013-05-22 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2680	mg/Kg	1	2500	<3.85	107	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2570	mg/Kg	1	2500	<3.85	103	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: 101717 | Date Analyzed: 2013-05-24 | Analyzed By: AR
Prep Batch: 86124 | QC Preparation: 2013-05-22 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2770	mg/Kg	1	2500	<3.85	111	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2830	mg/Kg	1	2500	<3.85	113	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 101739 | Date Analyzed: 2013-05-26 | Analyzed By: AH
Prep Batch: 86200 | QC Preparation: 2013-05-23 | Prepared By: AH

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	23.4	mg/Kg	1	20.0	4.42	117	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	24.8	mg/Kg	1	20.0	4.42	124	70 - 130	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.86	1.88	mg/Kg	1	2.00	93	94	70 - 130
4-Bromofluorobenzene (4-BFB)	1.74	1.76	mg/Kg	1	2.00	87	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 101749 | Date Analyzed: 2013-05-28 | Analyzed By: AH
Prep Batch: 86209 | QC Preparation: 2013-05-27 | Prepared By: AH

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.87	mg/Kg	1	2.00	<0.00810	94	70 - 130
Toluene		1	1.92	mg/Kg	1	2.00	<0.00750	96	70 - 130
Ethylbenzene		1	1.89	mg/Kg	1	2.00	<0.00730	94	70 - 130
Xylene		1	5.51	mg/Kg	1	6.00	<0.00700	92	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.99	mg/Kg	1	2.00	<0.00810	100	70 - 130	6	20
Toluene		1	2.04	mg/Kg	1	2.00	<0.00750	102	70 - 130	6	20
Ethylbenzene		1	2.01	mg/Kg	1	2.00	<0.00730	100	70 - 130	6	20
Xylene		1	5.87	mg/Kg	1	6.00	<0.00700	98	70 - 130	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.76	1.82	mg/Kg	1	2.00	88	91	70 - 130
4-Bromofluorobenzene (4-BFB)	1.79	1.86	mg/Kg	1	2.00	90	93	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 101846 | Date Analyzed: 2013-05-30 | Analyzed By: CW
Prep Batch: 86291 | QC Preparation: 2013-05-29 | Prepared By: CW

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	183	mg/Kg	1	250	<10.2	73	66.9 - 119.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	204	mg/Kg	1	250	<10.2	82	66.9 - 119.9	11	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	114	128	mg/Kg	1	100	114	128	76.8 - 140.2

Matrix Spike (MS-1) Spiked Sample: 329661

QC Batch: 101644 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			5540	mg/Kg	10	2500	3300	90	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			5810	mg/Kg	10	2500	3300	100	78.9 - 121	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: 329671

QC Batch: 101645 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			5300	mg/Kg	10	2500	3040	90	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			5600	mg/Kg	10	2500	3040	102	78.9 - 121	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: 329681

QC Batch: 101646 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			5280	mg/Kg	10	2500	2790	100	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			5600	mg/Kg	10	2500	2790	112	78.9 - 121	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: 329691

QC Batch: 101647 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			6140	mg/Kg	10	2500	3650	100	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			6420	mg/Kg	10	2500	3650	111	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 329701

QC Batch: 101648 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			9330	mg/Kg	10	2500	7140	88	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			9750	mg/Kg	10	2500	7140	104	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 329711

QC Batch: 101649 | Date Analyzed: 2013-05-22 | Analyzed By: AR
Prep Batch: 86091 | QC Preparation: 2013-05-21 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10400	mg/Kg	10	2500	7650	110	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			10300	mg/Kg	10	2500	7650	106	78.9 - 121	1	20

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

Matrix Spike (MS-1) Spiked Sample: 329652

QC Batch: 101673 | Date Analyzed: 2013-05-23 | Analyzed By: CW
Prep Batch: 86150 | QC Preparation: 2013-05-21 | Prepared By: CW

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	319	mg/Kg	1	250	13.3	122	36.1 - 147.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	285	mg/Kg	1	250	13.3	109	36.1 - 147.2	11	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	106	97.9	mg/Kg	1	100	106	98	78.3 - 131.6

Matrix Spike (MS-1) Spiked Sample: 329721

QC Batch: 101714 | Date Analyzed: 2013-05-23 | Analyzed By: AR
Prep Batch: 86124 | QC Preparation: 2013-05-22 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3680	mg/Kg	10	2500	1220	98	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			4030	mg/Kg	10	2500	1220	112	78.9 - 121	9	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: 329731

QC Batch: 101715 | Date Analyzed: 2013-05-23 | Analyzed By: AR
Prep Batch: 86124 | QC Preparation: 2013-05-22 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			9650	mg/Kg	10	2500	7230	97	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			9930	mg/Kg	10	2500	7230	108	78.9 - 121	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: 329741

QC Batch: 101716 | Date Analyzed: 2013-05-24 | Analyzed By: AR
Prep Batch: 86124 | QC Preparation: 2013-05-22 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			4180	mg/Kg	10	2500	1740	98	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			4430	mg/Kg	10	2500	1740	108	78.9 - 121	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: 329753

QC Batch: 101717 | Date Analyzed: 2013-05-24 | Analyzed By: AR
Prep Batch: 86124 | QC Preparation: 2013-05-22 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			6640	mg/Kg	10	2500	4250	96	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			7090	mg/Kg	10	2500	4250	114	78.9 - 121	7	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: 329652

QC Batch: 101739 | Date Analyzed: 2013-05-26 | Analyzed By: AH
Prep Batch: 86200 | QC Preparation: 2013-05-23 | Prepared By: AH

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	16.0	mg/Kg	1	20.0	4.47	58	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	Qs	Qs 1	16.2	mg/Kg	1	20.0	4.47	59	70 - 130	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	1.74	mg/Kg	1	2	85	87	70 - 130
4-Bromofluorobenzene (4-BFB)	1.72	1.77	mg/Kg	1	2	86	88	70 - 130

Matrix Spike (MS-1) Spiked Sample: 329652

QC Batch: 101749 | Date Analyzed: 2013-05-28 | Analyzed By: AH
Prep Batch: 86209 | QC Preparation: 2013-05-27 | Prepared By: AH

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.65	mg/Kg	1	2.00	<0.00810	82	70 - 130
Toluene		1	1.79	mg/Kg	1	2.00	<0.00750	90	70 - 130
Ethylbenzene		1	1.86	mg/Kg	1	2.00	<0.00730	93	70 - 130
Xylene		1	5.46	mg/Kg	1	6.00	<0.00700	91	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.65	mg/Kg	1	2.00	<0.00810	82	70 - 130	0	20
Toluene		1	1.79	mg/Kg	1	2.00	<0.00750	90	70 - 130	0	20
Ethylbenzene		1	1.87	mg/Kg	1	2.00	<0.00730	94	70 - 130	0	20
Xylene		1	5.47	mg/Kg	1	6.00	<0.00700	91	70 - 130	0	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)	1.81	1.73	mg/Kg	1	2	90	86	70 - 130
4-Bromofluorobenzene (4-BFB)	1.91	1.80	mg/Kg	1	2	96	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 329689

QC Batch: 101846 | Date Analyzed: 2013-05-30 | Analyzed By: CW
Prep Batch: 86291 | QC Preparation: 2013-05-29 | Prepared By: CW

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	284	mg/Kg	1	250	<10.2	114	36.1 - 147.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	261	mg/Kg	1	250	<10.2	104	36.1 - 147.2	8	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	131	131	mg/Kg	1	100	131	131	78.3 - 131.6

Calibration Standards

Standard (CCV-1)

QC Batch: 101644 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2013-05-22

Standard (CCV-2)

QC Batch: 101644 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-05-22

Standard (CCV-1)

QC Batch: 101645 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.4	99	85 - 115	2013-05-22

Standard (CCV-2)

QC Batch: 101645 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-05-22

Standard (CCV-1)

QC Batch: 101646 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.9	100	85 - 115	2013-05-22

Standard (CCV-2)

QC Batch: 101646 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-05-22

Standard (CCV-1)

QC Batch: 101647 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-05-22

Standard (CCV-2)

QC Batch: 101647 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.7	100	85 - 115	2013-05-22

Standard (CCV-1)

QC Batch: 101648 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-05-22

Standard (CCV-2)

QC Batch: 101648 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.5	100	85 - 115	2013-05-22

Standard (CCV-1)

QC Batch: 101649 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-05-22

Standard (CCV-2)

QC Batch: 101649 Date Analyzed: 2013-05-22 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.6	100	85 - 115	2013-05-22

Standard (CCV-1)

QC Batch: 101673 Date Analyzed: 2013-05-23 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	279	112	80 - 120	2013-05-23

Standard (CCV-2)

QC Batch: 101673 Date Analyzed: 2013-05-23 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	208	83	80 - 120	2013-05-23

Standard (CCV-3)

QC Batch: 101673 Date Analyzed: 2013-05-23 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	282	113	80 - 120	2013-05-23

Standard (CCV-4)

QC Batch: 101673 Date Analyzed: 2013-05-23 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	270	108	80 - 120	2013-05-23

Standard (CCV-1)

QC Batch: 101714 Date Analyzed: 2013-05-23 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.8	99	85 - 115	2013-05-23

Standard (CCV-2)

QC Batch: 101714 Date Analyzed: 2013-05-23 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-05-23

Standard (CCV-1)

QC Batch: 101715 Date Analyzed: 2013-05-23 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.9	100	85 - 115	2013-05-23

Standard (CCV-2)

QC Batch: 101715 Date Analyzed: 2013-05-23 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-05-23

Standard (CCV-1)

QC Batch: 101716 Date Analyzed: 2013-05-24 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.9	100	85 - 115	2013-05-24

Standard (CCV-2)

QC Batch: 101716 Date Analyzed: 2013-05-24 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-05-24

Standard (CCV-1)

QC Batch: 101717 Date Analyzed: 2013-05-24 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-05-24

Standard (CCV-2)

QC Batch: 101717 Date Analyzed: 2013-05-24 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-05-24

Standard (CCV-1)

QC Batch: 101739 Date Analyzed: 2013-05-26 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.20	120	80 - 120	2013-05-26

Standard (CCV-2)

QC Batch: 101739 Date Analyzed: 2013-05-26 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.11	111	80 - 120	2013-05-26

Standard (CCV-3)

QC Batch: 101739 Date Analyzed: 2013-05-26 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.03	103	80 - 120	2013-05-26

Standard (CCV-1)

QC Batch: 101749 Date Analyzed: 2013-05-28 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0909	91	80 - 120	2013-05-28
Toluene		1	mg/kg	0.100	0.0936	94	80 - 120	2013-05-28
Ethylbenzene		1	mg/kg	0.100	0.0918	92	80 - 120	2013-05-28
Xylene		1	mg/kg	0.300	0.268	89	80 - 120	2013-05-28

Standard (CCV-2)

QC Batch: 101749 Date Analyzed: 2013-05-28 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0894	89	80 - 120	2013-05-28
Toluene		1	mg/kg	0.100	0.0917	92	80 - 120	2013-05-28
Ethylbenzene		1	mg/kg	0.100	0.0903	90	80 - 120	2013-05-28
Xylene		1	mg/kg	0.300	0.263	88	80 - 120	2013-05-28

Standard (CCV-3)

QC Batch: 101749 Date Analyzed: 2013-05-28 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0903	90	80 - 120	2013-05-28
Toluene		1	mg/kg	0.100	0.0922	92	80 - 120	2013-05-28
Ethylbenzene		1	mg/kg	0.100	0.0898	90	80 - 120	2013-05-28
Xylene		1	mg/kg	0.300	0.262	87	80 - 120	2013-05-28

Standard (CCV-1)

QC Batch: 101846 Date Analyzed: 2013-05-30 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	218	87	80 - 120	2013-05-30

Standard (CCV-2)

QC Batch: 101846 Date Analyzed: 2013-05-30 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	215	86	80 - 120	2013-05-30

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

13052002

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 10

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

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 112MC05410
PROJECT NAME: COG / Honeygraham / Graham Nash, Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
329652	5/16		S		X	AH 1 (0-1')	1	N			X			X											X				
653			S		X	(1-1.5')	1	N			X														X				
654			S		X	(2-2.5')	1	N			X														X				
655			S		X	(3-3.5')	1	N			X														X				
656			S		X	(4-4.5')	1	N			X														X				
657			S		X	(5-5.5')	1	N			X														X				
658			S		X	(6-6.5')	1	N			X														X				
659			S		X	(7-7.5')	1	N			X														X				
660			S		X	AH2 (0-1')	1	N			X			X											X				
661			S		X	(1-1.5')	1	N			X														X				

RELINQUISHED BY: (Signature) [signature] Date: 5/17/13 Time: 1530
RECEIVED BY: (Signature) [signature] Hernandez Date: 5.17.13 Time: 15:30
SAMPLED BY: (Print & Initial) AG / PR Date: 5/17/13 Time: 1530

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #:
HAND DELIVERED (circled) UPS OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez AH
Results by:

RECEIVING LABORATORY: Trace
RECEIVED BY: (Signature)
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE: DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8 Mearted AP
REMARKS: Run deeper samples if TPH exceed 100 mg/kg / Run (?) BTEX on highest

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

Run deeper samples if benzene exceed 10 mg/kg or total BTEX exceed 50 mg/kg. TD11

13052002

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 10

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05410

PROJECT NAME: COG / HaleyGraham / Gram Nash Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations; pH; TDS
662	5/16		S		X	AH 2 (2-2.5')	1	N			X														X				
663			S		X	(3-3.5')	1	N			X														X				
664			S		X	(4-4.5')	1	N			X														X				
665			S		X	(5-5.5')	1	N			X														X				
666			S		X	(6-6.5')	1	N			X														X				
667			S		X	(7-7.5')	1	N			X														X				
668			S		X	AH 3 (0-1')	1	N			X			X											X				
669			S		X	(1-1.5')	1	N			X														X				
670			S		X	(2-2.5')	1	N			X														X				
671			S		X	(3-3.5')	1	N			X														X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Date: 5/17/13 Time: 1530
RECEIVED BY: (Signature) Date: 5/17/13 Time: 1530
SAMPLED BY: (Print & Initial) AG / RC Date: Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS
AIRBILL #:
OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez
Results by:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

13052002

Analysis Request of Chain of Custody Record

PAGE: 3 OF: 10

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

CLIENT NAME: COG | SITE MANAGER: Ike Tavarez

PROJECT NO.: 112 MC 05410 | PROJECT NAME: COG / Horse Graham / Graham North Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
672	5/16		S		X	AH3 (4-4.5')	1	N			X													X				
673			S		X	(5-5.5')	1	N			X													X				
674			S		X	(6-6.5')	1	N			X													X				
675			S		X	(7-7.5')	1	N			X													X				
676			S		X	AH 4 (0-1')	1	N			X			X										X				
677			S		X	(1-1.5')	1	N			X													X				
678			S		X	(2-2.5')	1	N			X													X				
679			S		X	(3-3.5')	1	N			X													X				
680			S		X	(4-4.5')	1	N			X													X				
681			S		X	(5-5.5')	1	N			X													X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Date: 5/17/13 Time: 1535 | RECEIVED BY: (Signature) Date: 5/17/13 Time: 15:30 | SAMPLED BY: (Print & Initial) AG/BC Date: 5/17/13 Time: 1530

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

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

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

RECEIVING LABORATORY: Trace | RECEIVED BY: (Signature)
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE: DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez | Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 38 | REMARKS:

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

13052002

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: 4 OF: 10

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05410

PROJECT NAME: COG Honey Graham/Graham Nash Eddy Co., NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 Mod. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
682	5/16		S		X	AH 4 (6-6.5)	1	N			X													X				
683	5/16		S		X	(7-7.5)	1	N			X													X				
684	5/16		S		X	AH 5 (0-1)	1	N			X			X										X				
685	5/16		S		X	(1-1.5)	1	N			X													X				
686	5/16		S		X	(2-2.5)	1	N			X													X				
687	5/16		S		X	(3-3.5)	1	N			X													X				
688	5/16		S		X	(4-4.5)	1	N			X													X				
689	5/16		S		X	AH 6 (0-1)	1	N			X			X										X				
690	5/16		S		X	(1-1.5)	1	N			X													X				
691	5/16		S		X	(2-2.5)	1	N			X													X				

RELINQUISHED BY: (Signature) Adrian Garcia — Date: 5/17/13 Time: 1530
RECEIVED BY: (Signature) — Date: 5.17.13 Time: 15:30
SAMPLED BY: (Print & Initial) Adrian Garcia AG/AR — Date: 5/16/13 Time: 1530

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

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

1305200 2

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 9 10

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 Tavarez
PROJECT NO.: 112MC05410
PROJECT NAME: COG / Harvey Graham / Graham Nash Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35)	TPH 8015 MOD.	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
692	5/16		S		X	AH 6 (3-3.5)	1	N			X															X				
693	5/16		S		X	(4-4.5)	1	N			X															X				
694	5/16		S		X	AH 7 (0-1)	1	N			X			X												X				
695	5/16		S		X	(1-1.5)	1	N			X															X				
696	5/16		S		X	(2-2.5)	1	N			X															X				
697	5/16		S		X	(3-3.5)	1	N			X															X				
698	5/16		S		X	(4-4.5)	1	N			X															X				
699	5/16		S		X	AH 8 (0-1)	1	N			X			X												X				
700	5/16		S		X	(1-1.5)	1	N			X															X				
701	5/16		S		X	(2-2.5)	1	N			X															X				

RELINQUISHED BY: (Signature) — Date: 5/17/13 Time: 1535
RECEIVED BY: (Signature) — Date: 5.17.13 Time: 15:30
SAMPLED BY: (Print & Initial) AG/RR — Date: 5/17/13 Time: 1530

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

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

13052002

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112 M 05416

PROJECT NAME: COG Honey Graham / Graham Nash
Eddy Co., NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
702	5/16		S		X	AH 8 (3-3.5')	1	N			X	
703	5/16		S		X	(4-4.5')	1	N			X	
704	5/16		S		X	AH 9 (0-1')	1	N			X	
705	5/16		S		X	(1-1.5')	1	N			X	
706	5/16		S		X	(2-2.5')	1	N			X	
707	5/16		S		X	(3-3.5')	1	N			X	
708	5/16		S		X	(4-4.5')	1	N			X	
709	5/16		S		X	AH 10 (0-1')	1	N			X	
710	5/16		S		X	(1-1.5')	1	N			X	
711	5/16		S		X	(2-2.5')	1	N			X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
	X											X				
												X				
		X										X				
												X				
												X				
												X				
												X				
	X											X				
												X				
												X				

RELINQUISHED BY: (Signature) Adrian Dow — Date: 5/17/13 Time: 15:30

RECEIVED BY: (Signature) A Hernandez — Date: 5-17-13 Time: 15:30

SAMPLED BY: (Print & Initial) Adrian Garcia AG/AR — Date: 5/16/13 Time: 15:30

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

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

AIRBILL #:

OTHER:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

1305 2002

Analysis Request of Chain of Custody Record

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

CLIENT NAME: (06)

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC054/0

PROJECT NAME: (06) Honey Graham / Graham Nash Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
712	5/16		S		X	AH 10 (3-3.5')	1	N			X														X				
713			S		X	(4-4.5')	1	N			X														X				
714			S		X	(5-5.5)	1	N			X														X				
715			S		X	(6-6.5')	1	N			X														X				
716			S		X	AH 11 (0-1')	1	N			X			X											X				
717			S		X	(1-1.5')	1	N			X														X				
718			S		X	(2-2.5')	1	N			X														X				
719			S		X	(3-3.5')	1	N			X														X				
720			S		X	(4-4.5')	1	N			X														X				
721			S		X	(5-5.5')	1	N			X														X				

RELINQUISHED BY: (Signature)	Date: 5/17/13 Time: 15:30	RECEIVED BY: (Signature)	Date: 5-17-13 Time: 15:30
SAMPLED BY: (Print & Initial) AH/RR	Date: 5/17/13 Time: 15:30		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED BUS UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez	Results by:		
RECEIVING LABORATORY: Trace ADDRESS: CITY: Midland STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 3.8	REMARKS:		

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

1 3052002

Analysis Request of Chain of Custody Record

PAGE: 2 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 Tavarez

PROJECT NO.: 112MC05410

PROJECT NAME: COG / Honey Graham / Graham Nash Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
722	5/16		S		X	AH 11 (0-0.5')	1	N			X	
723			S		X	AH 12 (0-1')	1	N			X	
724			S		X	(1-1.5')	1	N			X	
725			S		X	(2-2.5')	1	N			X	
726			S		X	(3-3.5')	1	N			X	
727			S		X	(4-4.5')	1	N			X	
728			S		X	(5-5.5')	1	N			X	
729			S		X	(6-6.5')	1	N			X	
730			S		X	AH 13 (0-1')	1	N			X	
731	☆		S		X	(1-1.5')	1	N			X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8081/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
	X											X				
	X											X				
												X				
												X				
												X				
												X				
												X				
												X				
	X											X				
												X				

RELINQUISHED BY: (Signature) — Date: 5/17/13 Time: 1330

RECEIVED BY: (Signature) — Date: 5-17-13 Time: 15:30

SAMPLED BY: (Print & Initial) AG/BK — Date: 5/17/13 Time: 15:30

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

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

AIRBILL #:

OTHER:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

1305200 2

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05

PROJECT NAME: COG Honey Graham/Graham Nash Eddy Co., NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8081/608	Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
732	5/16		S		X	AH 13 (2-2.5')	1	N			X														X				
733	5/16		S		X	(3-3.5')	1	N			X														X				
734	5/16		S		X	(4-4.5')	1	N			X														X				
735	5/16		S		X	(5-5.5')	1	N			X														X				
736	5/16		S		X	(6-6.5')	1	N			X														X				
737	5/15		S		X	Back Ground 1 (0-1')	1	N			X														X				
738			S		X	(1-1.5')	1	N			X														X				
739			S		X	(2-2.5')	1	N			X														X				
740			S		X	(3-3.5')	1	N			X														X				
741			S		X	(4-4.5')	1	N			X														X				

RELINQUISHED BY: (Signature) Adrian Garcia — Date: 5/17/13 Time: 15:30

RECEIVED BY: (Signature) — Date: 5/17/13 Time: 15:30

SAMPLED BY: (Print & Initial) Adrian Garcia (AG/RR) — Date: 5/17/13 Time: 15:30

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

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

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

13052002

Analysis Request of Chain of Custody Record

PAGE: 1 0 OF: 1 0

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 Tavarez

PROJECT NO.: 112MC05410

PROJECT NAME: COG / Hovey Graham / Graham North Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
742	5/15		S		X	Back Ground (5-5.5')	1	N			X													X				
743	"		S		X	(6-6.5')	1	N			X													X				
744	"		S		X	(7-7.5')	1	N			X													X				

RELINQUISHED BY: (Signature)	Date: 5/17/13 Time: 15:30	RECEIVED BY: (Signature)	Date: 5-17-13 Time: 15:30
SAMPLED BY: (Print & Initial) AM/BR	Date: 5/15/13 Time: 15:30		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED BUS UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez	Results by:		
RECEIVING LABORATORY: Trace ADDRESS: CITY: Midland STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 3.8	REMARKS:		

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

13052002

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 10

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

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 112MC05410
PROJECT NAME: COG / Honeybrahan/Graham Nash Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD TX1005 (Ext. to C35)	PAH 8270	Chloride
329652	5/16		S		X	AH 1 (0-1')	1	N			X		X	X		Y
653			S		X	(1-1.5')	1	N			X					Y
654			S		X	(2-2.5')	1	N			X					Y
655			S		X	(3-3.5')	1	N			X					Y
656			S		X	(4-4.5')	1	N			X					Y
657			S		X	(5-5.5')	1	N			X					Y
658			S		X	(6-6.5')	1	N			X					Y
659			S		X	(7-7.5')	1	N			X					Y
660			S		X	AH2 (0-1')	1	N			X			X		Y
661			S		X	(1-1.5')	1	N			X					Y

Other analysis columns (all blank): RCRA Metals Ag As Ba Cd Cr Pb Hg Se; TCLP Metals Ag As Ba Cd Vr Pd Hg Se; TCLP Volatiles; TCLP Semi Volatiles; RCI; GC.MS Vol. 8240/8260/624; GC.MS Semi. Vol. 8270/625; PCB's 8080/608; Pest. 808/608; Gamma Spec.; Alpha Beta (Air); PLM (Asbestos); Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature) [signature] Date: 5/17/13 Time: 1530
RECEIVED BY: (Signature) [signature] Hernandez Date: 5-17-13 Time: 15:30
SAMPLED BY: (Print & Initial) AG/ PR Date: 5/17/13 Time: 1530

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez AH
Results by:

RECEIVING LABORATORY: Trace
RECEIVED BY: (Signature)
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE: DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8 [illegible]
REMARKS: Run deeper samples if TPH exceed 100 mg/kg / Run (?) BTEX on highest run deeper samples if benzene exceed 10 mg/kg or total BTEX exceed 50 mg/kg. TD11

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

13052002

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: 2 OF: 9 10

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112 M 05410

PROJECT NAME: COG / HoneyGrcham / Gram Nash Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
662	5/16		S		X	AH 2 (2-2.5')	1	N			X	
663			S		X	(3-3.5')	1	N			X	
664			S		X	(4-4.5')	1	N			X	
665			S		X	(5-5.5')	1	N			X	
666			S		X	(6-6.5')	1	N			X	
667			S		X	(7-7.5')	1	N			X	
668			S		X	AH 3 (0-1')	1	N			X	
669			S		X	(1-1.5')	1	N			X	
670			S		X	(2-2.5')	1	N			X	
671			S		X	(3-3.5')	1	N			X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
X	X											X				
												X				
												X				
												X				
												X				
												X				
X	X											X				
												X				
												X				
												X				

RELINQUISHED BY: (Signature) — Date: 5/17/13 Time: 0530 — RECEIVED BY: (Signature) — Date: 5/17/13 Time: 1530

SAMPLED BY: (Print & Initial) AG/RC — Date: — Time:

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

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: DHL — RECEIVED BY: (Signature)

ADDRESS: — CITY: Midland — STATE: — ZIP: — CONTACT: — PHONE: — DATE: — TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

13052002

Analysis Request of Chain of Custody Record

PAGE: 3 OF: 10

ANALYSIS REQUEST (Circle or Specify Method No.)

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112 MC 05410

PROJECT NAME: COG / HoneyGrahan / Graham Nash Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
672	5/16		S		X	AH 3 (4-4.5')	1	N			X														X				
673			S		X	(5-5.5')	1	N			X														X				
674			S		X	(6-6.5')	1	N			X														X				
675			S		X	(7-7.5')	1	N			X														X				
676			S		X	AH 4 (0-1')	1	N			X		X	X												X				
677			S		X	(1-1.5')	1	N			X														X				
678			S		X	(2-2.5')	1	N			X														X				
679			S		X	(3-3.5')	1	N			X														X				
680			S		X	(4-4.5')	1	N			X														X				
681			S		X	(5-5.5')	1	N			X														X				

RELINQUISHED BY: (Signature) [signature] Date: 5/17/13 Time: 1530
RECEIVED BY: (Signature) [signature] Date: 5-17-13 Time: 15:30
SAMPLED BY: (Print & Initial) AG/BR Date: 5/17/13 Time: 15:30

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) ~~FEDEX~~ BUS ~~HAND DELIVERED~~ UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez
Results by:
RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: Trace
RECEIVED BY: (Signature)
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE: DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

13052002

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: 4 OF: 10

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05410

PROJECT NAME: COG Honey Graham/Graham Nash Eddy Co., NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 Mod. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
682	5/16		S		X	AH 4 (6-6.5)	1	N			X														X				
683	5/16		S		X	(7-7.5)	1	N			X														X				
684	5/16		S		X	AH 5 (0-1)	1	N			X		X	X											X				
685	5/16		S		X	(1-1.5)	1	N			X														X				
686	5/16		S		X	(2-2.5)	1	N			X														X				
687	5/16		S		X	(3-3.5)	1	N			X														X				
688	5/16		S		X	(4-4.5)	1	N			X														X				
689	5/16		S		X	AH 6 (0-1)	1	N			X			X											X				
690	5/16		S		X	(1-1.5)	1	N			X														X				
691	5/16		S		X	(2-2.5)	1	N			X														X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Adrian Garcia — Date: 5/17/13 Time: 15:30

RECEIVED BY: (Signature) — Date: 5.17.13 Time: 15:30

SAMPLED BY: (Print & Initial) Adrian Garcia AG/RR — Date: 5/17/13 Time: 15:30

RELINQUISHED BY: (Signature) Adrian Garcia — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

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

AIRBILL #:

OTHER:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

1305200 2

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 112MC05410
PROJECT NAME: COG / Harvey Graham / Graham Nash Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
692	5/16		S		X	AH 6 (3-3.5)	1	N			X			X											X				
693	5/16		S		X	(4-4.5)	1	N			X														X				
694	5/16		S		X	AH 7 (0-1)	1	N			X			X											X				
695	5/16		S		X	(1-1.5)	1	N			X														X				
696	5/16		S		X	(2-2.5)	1	N			X														X				
697	5/16		S		X	(3-3.5)	1	N			X														X				
698	5/16		S		X	(4-4.5)	1	N			X														X				
699	5/16		S		X	AH 8 (0-1)	1	N			X			X											X				
700	5/16		S		X	(1-1.5)	1	N			X														X				
701	5/16		S		X	(2-2.5)	1	N			X														X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) — Date: 5/17/13 Time: 15:30
RECEIVED BY: (Signature) — Date: 5.17.13 Time: 15:30
SAMPLED BY: (Print & Initial) AG/CR — Date: 5/15/13 Time: 1530

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

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

1305200 2

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: 6 OF: 10

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112 MC 0541a

PROJECT NAME: COG HoneyGraham / Graham Nash
Eddy Co., NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
702	5/16		S		X	AH 8 (3-3.5)	1	N			X													X				
703	5/16		S		X	(4-4.5)	1	N			X													X				
704	5/16		S		X	AH 9 (0-1)	1	N			X		X	X	X									X				
705	5/16		S		X	(1-1.5')	1	N			X													X				
706	5/16		S		X	(2-2.5')	1	N			X													X				
707	5/16		S		X	(3-3.5')	1	N			X													X				
708	5/16		S		X	(4-4.5')	1	N			X													X				
709	5/16		S		X	AH 10 (0-1')	1	N			X		X	X	X									X				
710	5/16		S		X	(1-1.5')	1	N			X													X				
711	5/16		S		X	(2-2.5')	1	N			X													X				

RELINQUISHED BY: (Signature) Adrian Garcia — Date: 5/17/13 Time: 15:30
RECEIVED BY: (Signature) — Date: 5-17-13 Time: 15:30
SAMPLED BY: (Print & Initial) Adrian Garcia AG — Date: 5/17/13 Time: 15:30

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

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

1305 2002

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC054110

PROJECT NAME: COG / Honey Graham / Graham Nash Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35)	TPH 8015 MOD.	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8081/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
712	5/16		S		X	AH 10 (3-3.5')	1	N			X		X													X				
713			S		X	(4-4.5')	1	N			X															X				
714			S		X	(5-5.5)	1	N			X															X				
715			S		X	(6-6.5')	1	N			X															X				
716			S		X	AH 11 (0-1')	1	N			X		X	X												X				
717			S		X	(1-1.5')	1	N			X															X				
718			S		X	(2-2.5')	1	N			X															X				
719			S		X	(3-3.5')	1	N			X															X				
720			S		X	(4-4.5')	1	N			X															X				
721			S		X	(5-5.5')	1	N			X															X				

RELINQUISHED BY: (Signature) — Date: 5/17/13 Time: 1530 — RECEIVED BY: (Signature) — Date: 5-17-13 Time: 15:30 — SAMPLED BY: (Print & Initial) AG/AR — Date: 5/17/13 Time: 1530

RELINQUISHED BY: (Signature) — Date: Time: — RECEIVED BY: (Signature) — Date: Time: — SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:

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

RECEIVING LABORATORY: Trace — RECEIVED BY: (Signature)
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE: DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

1305200 2

Analysis Request of Chain of Custody Record

PAGE: 2 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 Tavarez

PROJECT NO.: 112MC05410

PROJECT NAME: COG / Honeybadger Gordon Nash Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD / TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
722	5/16		S		X	AH 11 (6-6.5')	1	N			X														X				
723			S		X	AH 12 (0-1')	1	N			X		X	X											X				
724			S		X	(1-1.5')	1	N			X														X				
725			S		X	(2-2.5')	1	N			X														X				
726			S		X	(3-3.5')	1	N			X														X				
727			S		X	(4-4.5')	1	N			X														X				
728			S		X	(5-5.5')	1	N			X														X				
729			S		X	(6-6.5')	1	N			X														X				
730			S		X	AH 13 (0-1')	1	N			X			X											X				
731	↓		S		X	(1-1.5')	1	N			X														X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: 5/17/13 Time: 15:30	RECEIVED BY: (Signature)	Date: 5-17-13 Time: 15:30
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) AH / IK — Date: 5/17/13 Time: 15:30

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

1305200 2

Analysis Request of Chain of Custody Record

PAGE: 9 OF: 10

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MCOS

PROJECT NAME: COG Honey Graham/Graham Eddy Co., NM Nash

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
732	5/16		S		X	AH 13 (2-2.5')	1	N			X	
733	5/16		S		X	(3-3.5')	1	N			X	
734	5/16		S		X	(4-4.5')	1	N			X	
735	5/16		S		X	(5-5.5')	1	N			X	
736	5/16		S		X	(6-6.5')	1	N			X	
737	5/15		S		X	Back Ground 1 (0-1')	1	N			X	
738			S		X	(1-1.5')	1	N			X	
739			S		X	(2-2.5')	1	N			X	
740			S		X	(3-3.5')	1	N			X	
741			S		X	(4-4.5')	1	N			X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B; TPH TX1005 (Ext. to C35); TPH 8015 MOD.; PAH 8270; RCRA Metals Ag As Ba Cd Cr Pb Hg Se; TCLP Metals Ag As Ba Cd Vr Pd Hg Se; TCLP Volatiles; TCLP Semi Volatiles; RCI; GC.MS Vol. 8240/8260/624; GC.MS Semi. Vol. 8270/625; PCB's 8080/608; Pest. 808/608; Chlorides; Gamma Spec.; Alpha Beta (Air); PLM (Asbestos); Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature) Adrian Garcia	Date: 5/17/13 Time: 15:30	RECEIVED BY: (Signature) [signature] Date: 5.17.13 Time: 15:30
SAMPLED BY: (Print & Initial) Adrian Garcia (AG/AR)	Date: 5/17/13 Time: 15:30	
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED BUS UPS	AIRBILL #: OTHER:	
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez	Results by:	
RECEIVING LABORATORY: Trace ADDRESS: CITY: Midland STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:	RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 3.8	REMARKS:	

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

1305200 2

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05410

PROJECT NAME: COG / Hovey Graham / Graham North Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
742	5/15		S		X	Back Ground (5-5.5')	1	N			X	
743	"		S		X	(6-6.5')	1	N			X	
744	"		S		X	(7-7.5')	1	N			X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B; TPH 8015 MOD. TX1005 (Ext. to C35); PAH 8270; RCRA Metals Ag As Ba Cd Cr Pb Hg Se; TCLP Metals Ag As Ba Cd Vr Pd Hg Se; TCLP Volatiles; TCLP Semi Volatiles; RCI; GC.MS Vol. 8240/8260/624; GC.MS Semi. Vol. 8270/625; PCB's 8080/608; Pest. 808/608; Chloride; Gamma Spec.; Alpha Beta (Air); PLM (Asbestos); Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature) — Date: 5/16/13 Time: 15:30
RECEIVED BY: (Signature) — Date: 5-17-13 Time: 15:30
SAMPLED BY: (Print & Initial) AGI/RR — Date: 5/15/13 Time: 15:30

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS
AIRBILL #:
OTHER:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez
Results by:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8

REMARKS:

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

Summary Report

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

Report Date: June 7, 2013

Work Order: 13060303

Project Location: Eddy Co., NM
Project Name: COG/Honey Graham/Graham Nash
Project Number: 112MC05410

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330702	BG 2 0-1'	soil	2013-05-30	00:00	2013-05-31
330703	BG 2 1-1.5'	soil	2013-05-30	00:00	2013-05-31
330704	BG 2 2-2.5'	soil	2013-05-30	00:00	2013-05-31
330705	BG 2 3-3.5'	soil	2013-05-30	00:00	2013-05-31
330706	BG 2 4-4.5'	soil	2013-05-30	00:00	2013-05-31
330707	BG 2 5-5.5'	soil	2013-05-30	00:00	2013-05-31
330708	BG 2 6-6.5'	soil	2013-05-30	00:00	2013-05-31
330709	BG 2 7-7.5'	soil	2013-05-30	00:00	2013-05-31

Sample: 330702 - BG 2 0-1'

Param	Flag	Result	Units	RL
Chloride		**3770**	mg/Kg	4

Sample: 330703 - BG 2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**1210**	mg/Kg	4

Sample: 330704 - BG 2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2920**	mg/Kg	4

Sample: 330705 - BG 2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**2920**	mg/Kg	4

Sample: 330706 - BG 2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**3460**	mg/Kg	4

Sample: 330707 - BG 2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**3430**	mg/Kg	4

Sample: 330708 - BG 2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**3100**	mg/Kg	4

Sample: 330709 - BG 2 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**3330**	mg/Kg	4

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: June 7, 2013

Work Order: 13060303

Project Location: Eddy Co., NM
Project Name: COG/Honey Graham/Graham Nash
Project Number: 112MC05410

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
330702	BG 2 0-1'	soil	2013-05-30	00:00	2013-05-31
330703	BG 2 1-1.5'	soil	2013-05-30	00:00	2013-05-31
330704	BG 2 2-2.5'	soil	2013-05-30	00:00	2013-05-31
330705	BG 2 3-3.5'	soil	2013-05-30	00:00	2013-05-31
330706	BG 2 4-4.5'	soil	2013-05-30	00:00	2013-05-31
330707	BG 2 5-5.5'	soil	2013-05-30	00:00	2013-05-31
330708	BG 2 6-6.5'	soil	2013-05-30	00:00	2013-05-31
330709	BG 2 7-7.5'	soil	2013-05-30	00:00	2013-05-31

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

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

Report Contents

Case Narrative

Samples for project COG/Honey Graham/Graham Nash were received by TraceAnalysis, Inc. on 2013-05-31 and assigned to work order 13060303. Samples for work order 13060303 were received intact at a temperature of 5.1 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	86384	2013-06-04 at 08:55	102060	2013-06-06 at 15:00
Chloride (Titration)	SM 4500-Cl B	86384	2013-06-04 at 08:55	102061	2013-06-06 at 15:01

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 13060303 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 330702 - BG 2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	102060	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	Sample Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3770**	mg/Kg	10	4.00

Sample: 330703 - BG 2 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	102060	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	Sample Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1210**	mg/Kg	10	4.00

Sample: 330704 - BG 2 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	102060	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	Sample Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2920**	mg/Kg	10	4.00

Sample: 330705 - BG 2 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	102060	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	Sample Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2920**	mg/Kg	10	4.00

Sample: 330706 - BG 2 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	102060	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	Sample Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3460**	mg/Kg	10	4.00

Sample: 330707 - BG 2 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	102060	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	Sample Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3430**	mg/Kg	10	4.00

Sample: 330708 - BG 2 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	102060	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	Sample Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3100**	mg/Kg	10	4.00

Sample: 330709 - BG 2 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	102061	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	Sample Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3330**	mg/Kg	10	4.00

Method Blanks

Method Blank (1) QC Batch: 102060

QC Batch:	102060	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	QC Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 102061

QC Batch:	102061	Date Analyzed:	2013-06-06	Analyzed By:	AR
Prep Batch:	86384	QC Preparation:	2013-06-04	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 102060 | Date Analyzed: 2013-06-06 | Analyzed By: AR
Prep Batch: 86384 | QC Preparation: 2013-06-04 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2820	mg/Kg	1	2500	<3.85	113	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2740	mg/Kg	1	2500	<3.85	110	85 - 115	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 102061 | Date Analyzed: 2013-06-06 | Analyzed By: AR
Prep Batch: 86384 | QC Preparation: 2013-06-04 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2550	mg/Kg	1	2500	<3.85	102	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2660	mg/Kg	1	2500	<3.85	106	85 - 115	4	20

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

Matrix Spike (MS-1) Spiked Sample: 330708

QC Batch: 102060 | Date Analyzed: 2013-06-06 | Analyzed By: AR
Prep Batch: 86384 | QC Preparation: 2013-06-04 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			5840	mg/Kg	10	2500	3100	110	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			5570	mg/Kg	10	2500	3100	99	78.9 - 121	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: 330835

QC Batch: 102061 | Date Analyzed: 2013-06-06 | Analyzed By: AR
Prep Batch: 86384 | QC Preparation: 2013-06-04 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			6060	mg/Kg	10	2500	3600	98	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			6400	mg/Kg	10	2500	3600	112	78.9 - 121	5	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 102060 | Date Analyzed: 2013-06-06 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	103	103	85 - 115	2013-06-06

Standard (CCV-2)

QC Batch: 102060 | Date Analyzed: 2013-06-06 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	97.2	97	85 - 115	2013-06-06

Standard (CCV-1)

QC Batch: 102061 | Date Analyzed: 2013-06-06 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	97.8	98	85 - 115	2013-06-06

Standard (CCV-2)

QC Batch: 102061 | Date Analyzed: 2013-06-06 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2013-06-06

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

13060303

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05410

PROJECT NAME: 106 / Honey Graham / Graham Nash Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
330702	5/30		S		X	~~AH~~ BG2 (0-1')	1				X														X				
703			S		X	(1-1.5')	1				X														X				
704			S		X	(2-2.5')	1				X														X				
705			S		X	(3-3.5')	1				X														X				
706			S		X	(4-4.5')	1				X														X				
707			S		X	(5-5.5')	1				X														X				
708			S		X	(6-6.5')	1				X														X				
709			S		X	(7-7.5')	1				X														X				

RELINQUISHED BY: (Signature) Date: 5/31/13 Time: 1535 RECEIVED BY: (Signature) Date: 5-31-13 Time: 15:35

SAMPLED BY: (Print & Initial) RB/AG Date: 5/30/13 Time: 1130

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

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

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

RECEIVING LABORATORY: Trace RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland STATE: ZIP:

CONTACT: PHONE: DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 5.1°C

REMARKS: Midland all

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