# SITE INFORMATION

2RA-528

•

		Report	Type: Clos	ure Rep	ort
General Site Info	ormation: 🐅	A State of States		a and a section of the section of the	
Site:			8" SWD Line		an a
Company:	- <u></u>	COG Operat			
Section, Townsl	hip and Range			nit N Sec I	3 T17S R29E
Lease Number:		API 30-015-2	28759		· · · · · · · · · · · · · · · · · · ·
County:		Eddy Count			
GPS:	·····		32 50.544° N		104 05.886° W
Surface Owner:		State			
Mineral Owner:					0444.00 11 12 12 12
Directions:		Hwy 82 and C	H-211 (Old Loco Ho	ad), north on	211 for 2 miles to location
Pologo Data					
	Children (1987) - Albert		le attanta en la carta anta	Astra Stream	and a second and a second and a second s
Date Released:	<u></u>	6/10/2010 Produced flui			
Type Release: Source of Contan	nination:	8" SWD line	iu		
Fluid Released:		80 bbls	·····		
Fluids Recovered	1.	20 bbls		<u></u>	
	nication:			6. N.	
		and the second	T		
Name:	Pat Ellis				Kim Dorey
Company:	COG Operating, LI		<u> </u>		Tetra Tech
Address:	550 W. Texas Ave.	Ste. 1300	<u> </u>		1910 N. Big Spring
P.O. Box		· · · · · · · · · · · · · · · · · · ·	<b></b>		
City:	Midland Texas, 797	701			Midland, Texas
Phone number:	(432) 686-3023				(432) 631-0348
Fax:	(432) 684-7137				
Email:	pellis@conchoresc	urces.com			kim.dorey@tetratech.com
Depth to Groundw <50 ft	/ater:		Ranking Score		Site Data
<u>&lt;50 ft</u> 50-99 ft	<u></u>		20		10
>100 ft.			0		······
	·····	······································	······································		
WellHead Protecti			Ranking Score		Site Data
	000 ft., Private <200 f		20		
vvater Source >1,0	000 ft., Private >200 f	t	0		0
Surface Body of W	Vater:	· · · · · · · · · · · · · · · ·	Ranking Score		Site Data
<200 ft.			20		Cito Palla
200 ft - 1,000 ft.	<u></u>	<u></u> <u></u>	10		
>1,000 ft.			0		0
	al Ranking Score		ble Soil RRAL (m	g/kg)	RECEIVED SEP 22 2011 NMOCD ARTESIA
		Benzene 10	50	1,000	NMOCD ARTESIA
		and an			



August 18, 2011

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

#### Re: Closure Report for the COG Operating LLC., Big George 8" Line, Unit N, Section 8, Township 17 South, Range 29 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 Big George 8" Line, Unit N, Section 8, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.84204°, W 104.09789°. 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 June 10, 2010, and released approximately eighty (80) barrels of produced water due to a plugged 8" SWD line rupturing. To alleviate the problem, COG personnel repaired the line and returned the line to service. Twenty (20) barrels of standing fluids were recovered from the spill area. The spill initiated from the SWD line impacting an area approximately 50' x 350' along a lease road. The initial C-141 form is enclosed in Appendix A.

#### Groundwater

No water wells were listed within Section 8. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 80' below surface. The water report 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 1,000 mg/kg.

#### **Soil Assessment and Analytical Results**

Prior to sampling, the impacted area had been scraped by COG and the soil hauled to proper disposal. On June 22, 2010, Tetra Tech personnel inspected and sampled the spill area. A total of six (6) auger holes (AH-1 through AH-6) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, all of the submitted samples were below the RRAL for TPH and BTEX. Elevated chloride concentrations were detected for all auger holes (AH-1 through AH-6), with chloride concentrations ranging from <200 mg/kg to 18,400 mg/kg. Auger holes (AH-1, AH-4 and AH-6) were vertically defined and AH-2, AH-3 and AH-5 bottom hole samples at 5-5.5' showed chloride concentrations of 892 mg/kg, 982 mg/kg, and 812 mg/kg, respectively.

#### **Remedial Work and Closure Request**

Prior to excavating the area, a New Mexico One Call (NMOC) was placed to clear the area for the remediation activities. Several additional pipelines were within the designated spill and proposed excavation footprint. Due to safety concerns and/or pipeline safety requirements, the proposed excavation areas were limited between the lines. The locations of these pipelines are shown on Figure 4.



From March 21 through 23, 2011, Tetra Tech personnel supervised the excavation of the site. The remediation was performed as stated in the approved work plan. Approximately 1,820 yards<sup>3</sup> of soil were removed and transported to CRI Inc. for proper disposal. The excavation depths are highlighted in Table 1 and shown on Figure 4.

Once excavated to the appropriate depths, the areas of AH-2, AH-3, and AH-5 were trenched to collect confirmation samples and to define the chloride vertical extents, as recommended in the work plan. The sampling results are summarized in Table 1.

Referring to Table 1, AH-3 (CS-1) did show a declining chloride concentration with depth and AH-2 (CS-2) showed a chloride spike at 8.0' of 2,350 mg/kg and declined with depth to 291 mg/kg at 10'. The chloride spike appears to be cross contaminated from the upper soils. The area of AH-5 (CS-3) also showed chloride concentrations of 7,760 mg/kg at 6', 2,350 mg/kg at 8' and 2,950 mg/kg at 10', but declined to <200 mg/kg at 12'. This deeper impact was not excavated due to the limited area and safety concerns on the surrounding pipelines, which caused the loose sand to slough into the excavation. The excavations were backfilled with clean soil to grade.

Based on the remedial activities performed at this site, COG request closure of this site. If you require any additional information or have any questions or comments concerning this report, please call at (432) 682-4559.

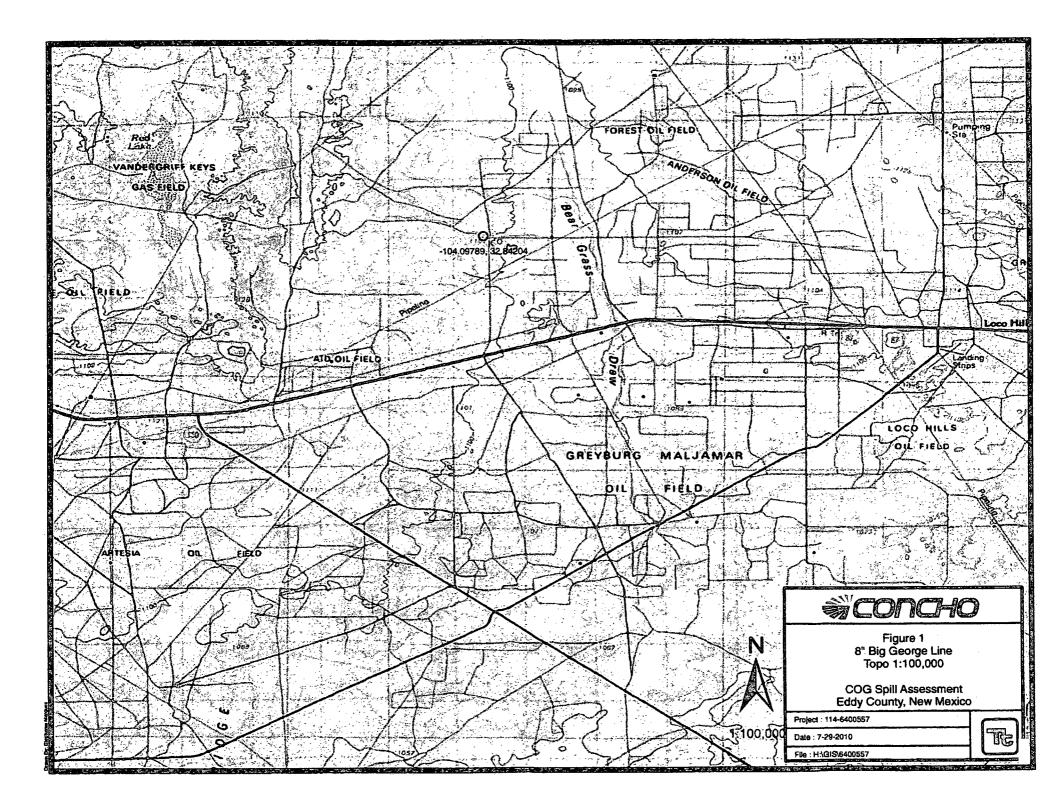
Respectfully submitted, TETRA TECH

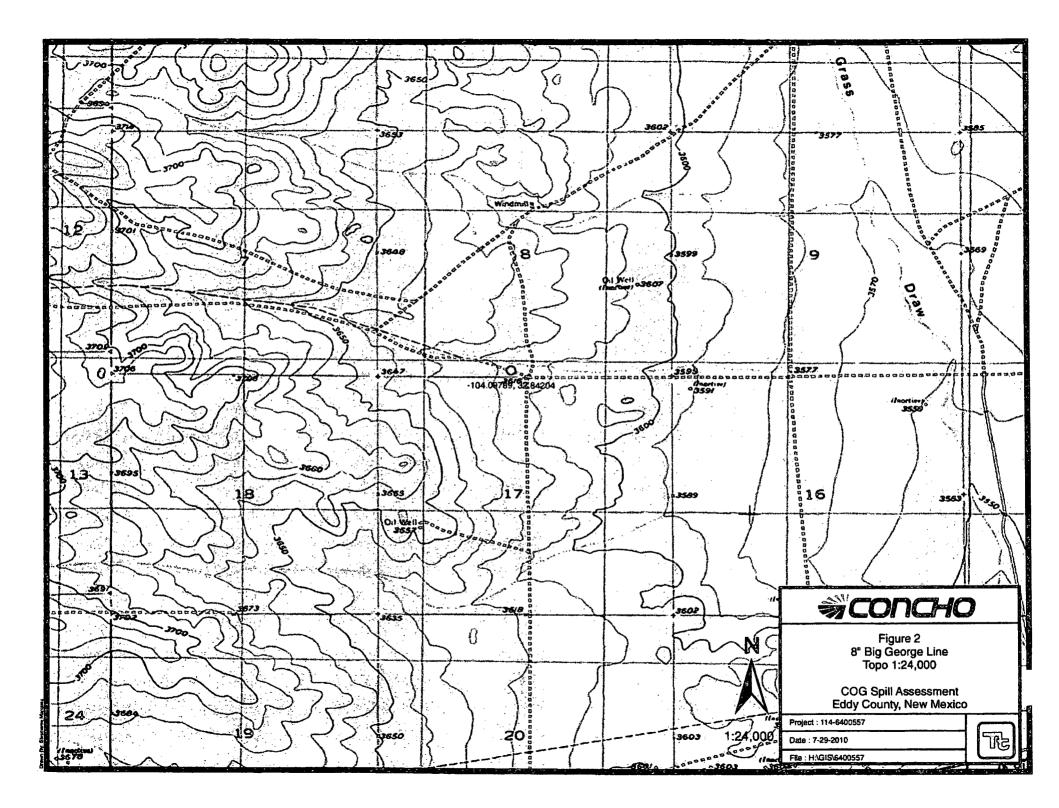
Ike Tavarez

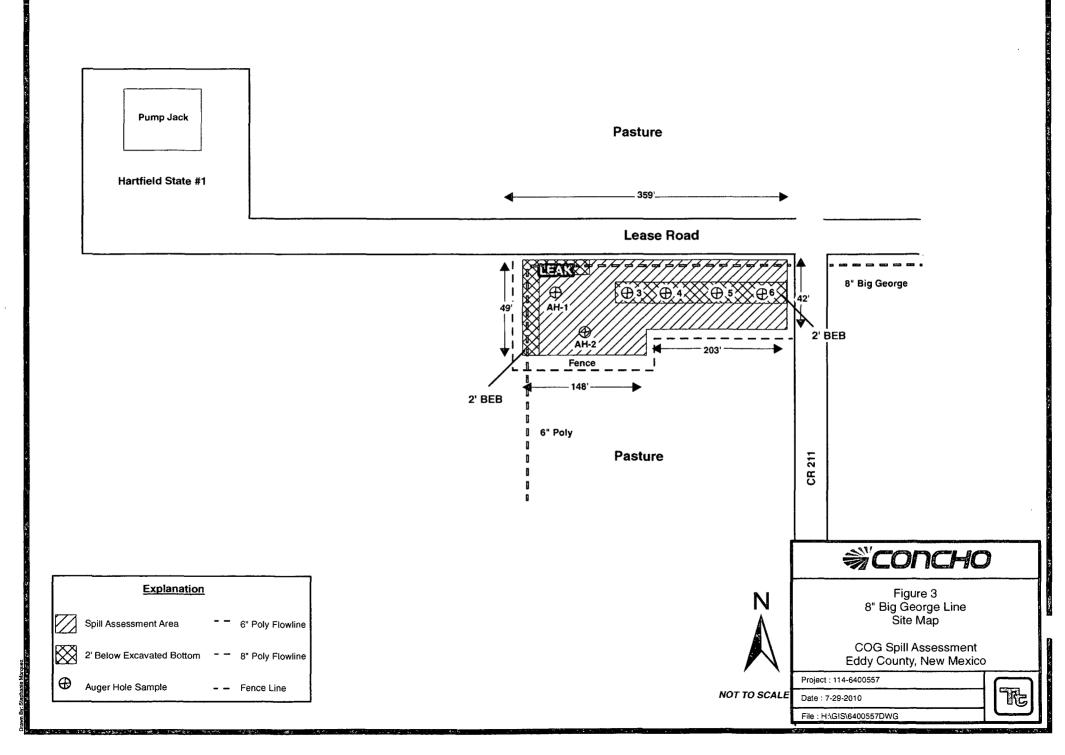
Project Manager

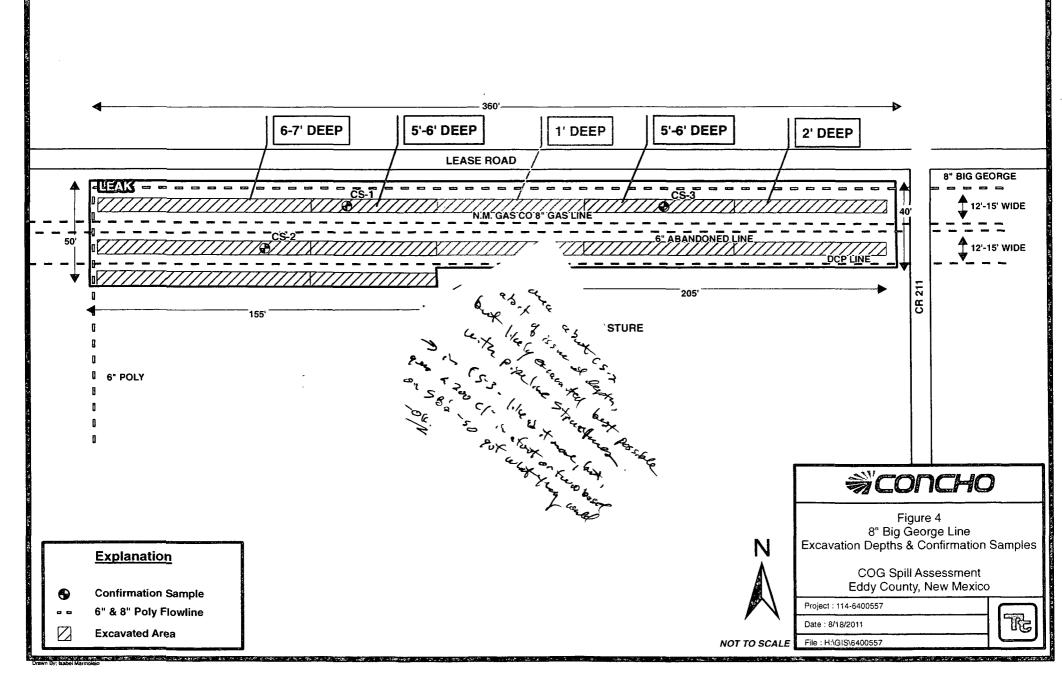
cc: Pat Ellis - COG

FIGURES





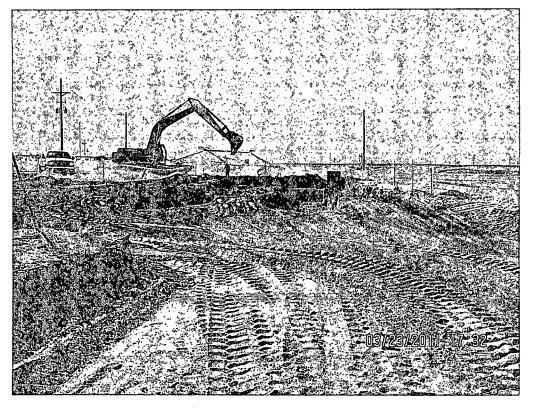




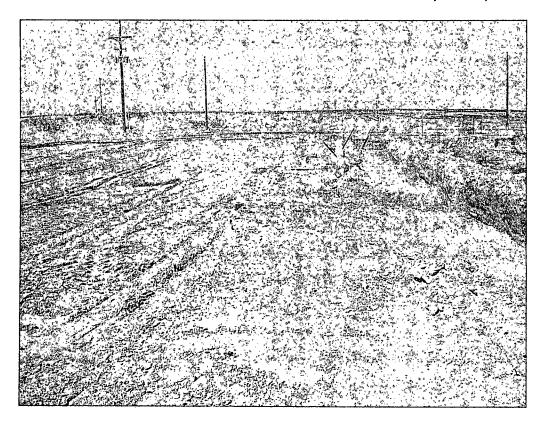
C 1 907 1511

**SHGARDOTOHG** 

COG Operating LLC Big George 8" Line Eddy County, New Mexico



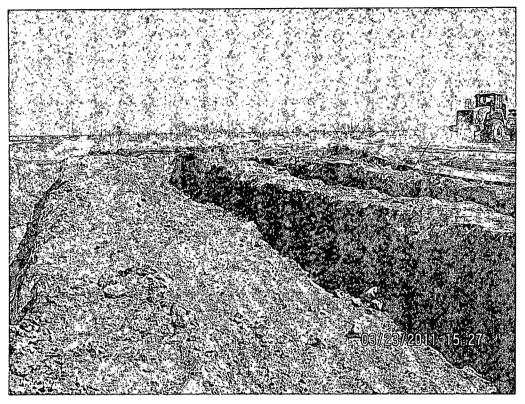
View west - Shallow excavation area toward deeper impact



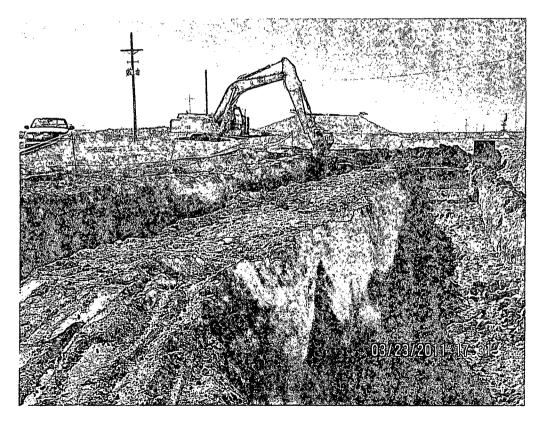
View east - Post excavation and area backfilled



### COG Operating LLC Big George 8" Line Eddy County, New Mexico

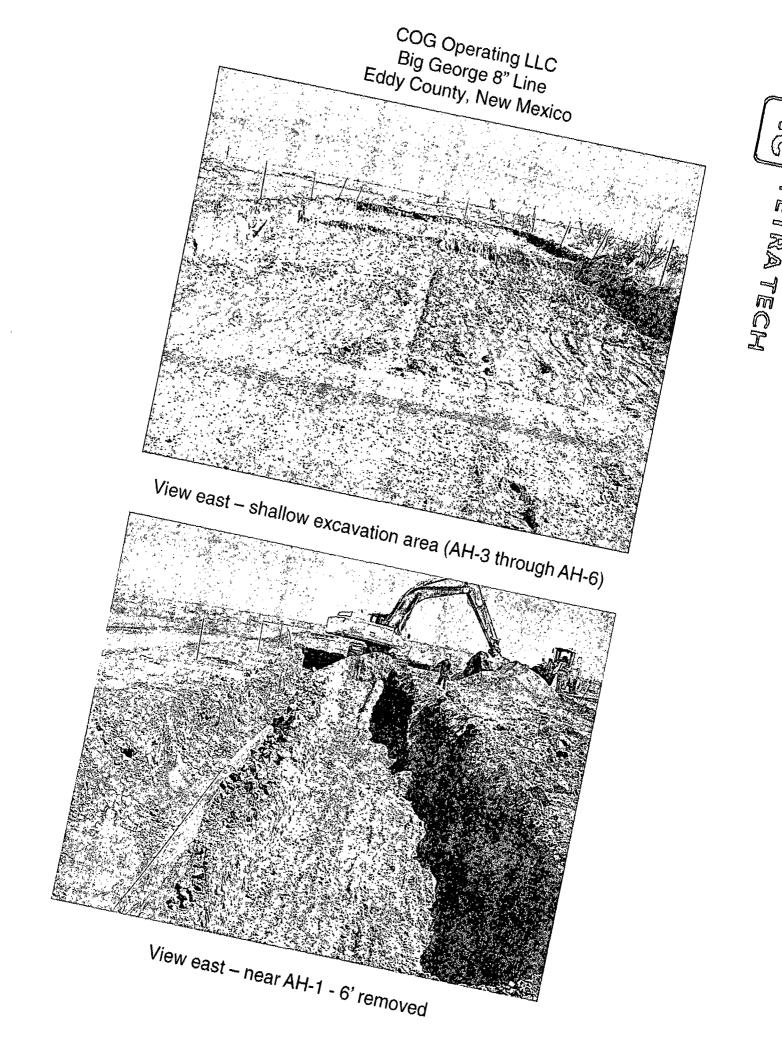


View west - Buried lines left in place



View east - NM Gas company line





# Table 1COG Operating LLC.Big George Line LeakEddy COUNTY, NEW MEXICO

Sample Sample	Sample	Sample	Depth	Soi	I Status	Т	PH (mg	⁄kg)	Benzene	Toluene	Ethlybenzene	Xylene	BTEX	Chloride
ID	Date	Depth (ft)		In-Situ	Removed	DRO	GRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Total	(mg/kg)
AH-1	6/22/10	0-1'	1'		Х	<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	11,800
	u	1-1.5'	1'		<b>X</b> .	-	-	_	· · -	-	-	-		14,500
	"	2-2.5'	1'		X	-	-		-		-			1,8,400
	u	3-3.5'	1'		X	-	-	-	-	-	-	-	-	17,900
	H	4-4.5	1'		Х	-	-	-	-	-			=	15,000
	11	5-5.5'	11		X	<u>-</u>	-	-	-	1 <b>-</b> 1	-	-		14,200
	n	6-6.5	· 1'		Х	·-	-	-	-		-	-		13,200
	n	7-7.5'	1'	X		-	-	-	-	-	-	-	-	914
	н	8-8.5'	1'	Х		-	-	-	-	-		-	_	485
	"	9-9.5'	1'	Х		-	-	-		-		-	-	257
AH-2	6/22/10	ia 0-1'	: 1'		X	<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	17,100
	lt It	1-1.5	1'		X	-	-		-	-	-	•	-	16,200
	11	2-2.5'	1'		<b>X</b> -	·- ·	-	-	-		-	-		13,300
	51	3-3.5'	1'		- <b>X</b>	-	-	-	-		-	-	-	10,100
	п	4-4.5'	1'		X	-	· -	-		-	-	-		6,470
	11	5-5.5'	1'		<b>X</b>		-	-		•		· -		892
CS-2	3/23/11	6' Bottom		X		-	-	-	-	-	-	-	-	657
		8'		X		-	-	-	-	-	-	-	-	2350
		10'		X		-	-	-	-	-	-	-	-	291
		12'		X		-	-	-	-	-	~	-	~	315
		14'	~_~~	X		-	-	-	-	-	-	-	-	965

# Table 1COG Operating LLC.Big George Line LeakEddy COUNTY, NEW MEXICO

Sample	Sample	Sample	Depth	Soi	l Status	T	PH (mg/	/kg)	Benzene	Toluene	Ethlybenzene	Xylene	BTEX	Chloride
ָ סו	Date	Depth (ft)		In-Situ	Removed	DRO	GRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Total	(mg/kg)
AH-3	6/22/10	0-1'	2'		Х	<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	5,480
	11	1-1.5'	2'	-	X	-	-	-			-	-	-	1,290
	11	2-2.5'	2'		X	-	-			-	-	· -	-	1,780
	н	3-3.5	2'		X	-	-			•				<400
	н	4-4.5	2'		Х	-	-		•	-	-	-	÷	<400
	11	5-5.5'	2'		X	-	-	-		-	-	-	· -	982
CS-1	3/23/11	6' Bottom		X		-	-	-	-	-	-	-	-	310
		8'		Х		-	-	-	-	-	-	-	-	<200
		10'		Х		-	-	-	-	-		-	-	<200
AH-4	6/22/10	0-1'	2'		X	<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	3970
	n	1-1.5'	2'	Х		-	-	-	-	-	-	-	-	<200
	п	2-2.5'	2'	Х		-	-	-	-	-	-	-	-	<200
	u	3-3.5'	2'	X		-	-	-	-	-	-	-	-	213
	11	4-4.5'	2'	Х		-	-	-	-	-	-	-	-	<200
	ш	5-5.5'	2'	Х		-	-	-	-	-	-	-	-	<200
	11	6-6.5	2'	X		-	-	-	-	-	-	-	-	594
	11	7-7.5'	2'	X		-	-	-	-	-	-	-	-	<200

# Table 1COG Operating LLC.Big George Line LeakEddy COUNTY, NEW MEXICO

Sample	Sample	Sample	Depth	Soi	l Status	T	PH (mg	/kg)	Benzene	Toluene	Ethlybenzene	Xylene	BTEX	Chloride
ID	Date	Depth (ft)		In-Situ	Removed	DRO	GRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Total	(mg/kg)
AH-5	6/22/10	0-1'.	2'		X	<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	13,100
	11	1-1.5	2'		X					-				13,200
	н	2-2.5'	2'.	i ing	Х.			· · · ·	-			-		13,300
	н	3-3.5'	2'		X	· .	-		-	-	_		+	7,790
	н	4-4.5'	2'		X	-		-		_	-			495
	11	5-5.5'	2'		X	-		1. <u>1.</u> 1.						812
CS-3	3/23/11	6' bottom		Х		-	-	-	-	-	. –	-	-	7,760
		8'		Х		-	-	-	_	-	-	<u> </u>	-	2,350
		10'		Х		-	-	-	-	-	-	-	-	2,950
		12'		Х		-	-	-	-	-	-	-	-	<200
AH-6	6/22/10	0-1'	2'		X	<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.02	12,500
	11	1-1.5'	2'.		Χ.			-					- <u>-</u>	5,940
	11	2-2.5'	2'	Х		-	-	-	-	-	-	-	-	792
	it	3-3.5'	2'	Х		-	-	-	-	-	-	-	-	401

BEB Below Excavation Bottom

(--) Not Analyzed

Excavation depths

Excavation depths

APPENDIX A

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.

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

1220 S. St. Fran	cis Dr., Santa	a Fe, NM 87505	5	Sa	anta I	Fe, NM 875	05				side of form
en <u>en en e</u>			Rele	ease Notific	catio	on and Co	orrective A	ction			1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
						<b>OPERA</b>	FOR	🗍 Initi	al Report	$\boxtimes$	Final Report
Name of Co	ompany C	COG Operat	ting LLC	<b>x</b>		Contact Pa	t Ellis	<u>_</u>	<u>_</u>		· · · · ·
				nd, Texas 7970	1	Telephone N	No. 432-230-00	77			
Facility Nar						Facility Typ					
Surface Ow	mer: State			Mineral C	Dwner			No. API 30	-015-2	8759	
L						ON OF REI	FASE	1			
Unit Letter	Section	Township	Range	Feet from the		th/South Line	Feet from the	East/West Line	County	<u> </u>	
N	8	175	29E				r cot irom the	Last West Ellie	County	Eddy	,
	<b>4</b>	L	L	atitude N 32 5	0.544	4° Longitud	e W 104 05.88	6°	L		
						E OF RELI					
Type of Rele	ase: Produc	ed Water		1 14 8 8			Release 80 bbls	Volume I	Recovered 2	20 bbls	
Source of Re							lour of Occurrenc		Hour of Dis		
Was Immediate Notice Given?					6/10/10		6/10/10	10:00 p.m.			
X Yes No Not Required					If YES, To Mike Brat	cher - OCD					
By Whom? Josh Russo							:22 a.m.				
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse. N/A RECEIVED SEP 22 2011 SEP 22 2011 SEP 22 2011 NMOCD ARTESIA					
	Yes 🛛 No					N/A			TIE	DI	
If a Watercou	irse was Im	pacted, Descr	ibe Fully.*	k				EC	ELAR		
N/A								TRE	2 20	11	<b>\</b>
								I SE	P 2	-01	Al l
Describe Cou	an of Duchl	em and Reme	dial Action	n Takan *					OD AR	TES	
Describe Cau	ise of Plobi	em anu keme	dial Action	II Takell."				NAM			
The 8 inch B	ig George S	WD line was	plugged, o	causing it to ruptu	re. The	e line was imm	ediately repaired a	and put back into s	service.		
Describe Are	a Affected	and Cleanup A	Action Tak	xen.*							
Tetro Tech in	unnected site	and collecter	t complex :	to define spills av	tont S	oil with elevate	d chloride concer	ntrations was haule	d owou for	nronor (	licnosal Site
								submitted to NM			iisposai. Site
								nderstand that purs tive actions for rel			
								eport" does not rel			
should their o	operations h	ave failed to a	ndequately	investigate and re	emedia	te contaminatio	on that pose a thre	eat to ground water	r, surface wa	ater, hui	nan health
				tance of a C-141	report	does not relieve	e the operator of r	esponsibility for c	ompliance v	vith any	other
Tederal, state,	or local lay	vs and/or regu	lations.					TEDVATION	DIVICIO		
		$' \wedge \neg \neg$	/ /				<u>OIL CONS</u>	SERVATION	DIVISIC	<u> </u>	
Signature:		<u>      _</u>	★								
Printed Name	: Ike Tavar	ez Ag	est	for CoG	<b>b</b>	Approved by	District Supervise	or:			
Title: Project						Approval Date: Expiration I		Date			
	•	 									
		arez@TetraTe	ecn.com	<u> </u>		Conditions of	Approval:		Attached		
Date:	Date: <b>S-18-1</b> / Phone: (432) 682-4559										

\* Attach Additional Sheets If Necessary

#### State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

#### **Release Notification and Corrective Action**

	OPERATOR	$\boxtimes$	Initial Report	Final Repor
Name of Company COG OPERATING LLC	Contact	Pat Ellis		
Address 550 W. Texas. Suite 100, Midland, TX 79701	Telephone No.	432-230-0077		
Facility Name BIG GEORGE	Facility Type	SWD		

Surface Owner	State	Mineral Owner	Lease No. API# 30-015-28759

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	8	175	29E				ļ	Eddy

Latitude 32 50.544 Longitude 104 05.886

#### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 80bbls	Volume Recovered 20bbls
Source of Release 8 inch line	Date and Hour of Occurrence	Date and Hour of Discovery
	06/10/2010	06/10/2010 10:00 a.m.
Was Immediate Notice Given?	If YES, To Whom?	
Yes No Not Required		Bratcher—OCD
By Whom? Josh Russo	Date and Hour 06/11/2010	9:22 a.m.
Was a Watercourse Reached?	If YES. Volume Impacting the Wat	tercourse.
If a Watercourse was Impacted. Describe Fully.*		RECEP 22 2011 CEP 22 2011
Describe Cause of Problem and Remedial Action Taken.*		ARTE
The S inch Big George SWD line was plugged, causing it to rupture. The	line was immediately repaired and pu	at back into service OCD A
Describe Area Affected and Cleanup Action Taken.*		
By Whom?       Josh Russo         Was a Watercourse Reached?       □         Yes       No         If a Watercourse was Impacted. Describe Fully.*         Describe Cause of Problem and Remedial Action Taken.*         The S inch Big George SWD line was plugged, causing it to rupture. The         Describe Area Affected and Cleanup Action Taken.*         Initially 80bbls of produced water was release from the 8 inch Big George the release are 25' x 90'. (The closest well location to the release is the Ha NM, API# 30-015-37378, GPS 32.84337 – 104.10024) Tetra Tech will satisfies and we will present a remediation work plan to the NMOCD for approval	line. We were able to recover 20bbls tfield State #1, Unit N, Sec. 8-T17S-1 mple the spill site area to delineate an prior to any significant remediation w	with a vacuum truck. The dimensions of R29E, 530 FSL 1650 FWL, Eddy County, y possible contamination from the release work.
I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release nu public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediate or the environment. In addition, NMOCD acceptance of a C-141 report defederal, state, or local laws and/or regulations.	otifications and perform corrective ac NMOCD marked as "Final Report" e contamination that pose a threat to g	tions for releases which may endanger does not relieve the operator of liability ground water, surface water, human health

$\longrightarrow$	OIL CONSERV	ATION DIVISION
Signature:		
Printed Name: Josh Russo	Approved by District Supervisor:	
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:	Attached
Date: 06/17/2010 Phone: 432-212-2399		

\* Attach Additional Sheets If Necessary

# APPENDIX B

#### Water Well Data Average Depth to Groundwater (ft) COG - Big George Eddy County, New Mexico

۰.

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

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

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

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

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

17 South 28 East **79** 

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

] New Mexico State Engineers Well Reports

USGS Well Reports

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

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

# APPENDIX C

### **Summary Report**

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

Report Date: July 2, 2010 Work Order: 10062809

Project Location:	Eddy County, NM
Project Name:	COG/Big George Line Leaf
Project Number:	114-6400557

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
235970	AH-1 0-1'	soil	2010-06-22	00:00	2010-06-25
235971	AH-1 1-1.5'	soil	2010-06-22	00:00	2010-06-25
235972	AH-1 2-2.5'	soil	2010-06-22	00:00	2010-06-25
235973	AH-1 3-3.5'	soil	2010-06-22	00:00	2010-06-25
235974	AH-1 4-4.5'	soil	2010-06-22	00:00	2010-06-25
235975	AH-1 5-5.5'	soil	2010-06-22	00:00	2010-06-25
235976	AH-1 6-6.5'	soil	2010-06-22	00:00	2010-06-25
235977	AH-1 7-7.5'	soil	2010-06-22	00:00	2010-06-25
235978	AH-1 8-8.5'	soil	2010-06-22	00:00	2010-06-25
235979	AH-1 9-9.5'	soil	2010-06-22	00:00	2010-06-25
235980	AH-2 0-1'	soil	2010-06-22	00:00	2010-06-25
235981	AH-2 1-1.5'	soil	2010-06-22	00:00	2010-06-25
235982	AH-2 2-2.5'	soil	2010-06-22	00:00	2010-06-25
235983	AH-2 3-3.5'	soil	2010-06-22	00:00	2010-06-25
235984	AH-2 4-4.5'	soil	2010-06-22	00:00	2010-06-25
235985	AH-2 5-5.5'	soil	2010-06-22	00:00	2010-06-25
235986	AH-3 0-1'	soil	2010-06-22	00:00	2010-06-25
235987	AH-3 1-1.5'	soil	2010-06-22	00:00	2010-06-25
235988	AH-3 2-2.5'	soil	2010-06-22	00:00	2010-06-25
235989	AH-3 3-3.5'	soil	2010-06-22	00:00	2010-06-25
235990	AH-3 4-4.5'	soil	2010-06-22	00:00	2010-06-25
235991	AH-3 5-5.5'	soil	2010-06-22	00:00	2010-06-25
235992	AH-4 0-1'	soil	2010-06-22	00:00	2010-06-25
235993	AH-4 1-1.5'	soil	2010-06-22	00:00	2010-06-25
235994	AH-4 2-2.5'	soil	2010-06-22	00:00	2010-06-25
235995	AH-4 3-3.5'	soil	2010-06-22	00:00	2010-06-25
235996	AH-4 4-4.5'	soil	2010-06-22	00:00	2010-06-25
235997	AH-4 5-5.5'	soil	2010-06-22	00:00	2010-06-25
235998	AH-4 6-6.5'	soil	2010-06-22	00:00	2010-06-25
235999	AH-4 7-7.5'	soil	2010-06-22	00:00	2010-06-25

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
236000	AH-5 0-1'	soil	2010-06-22	00:00	2010-06-25
236001	AH-5 1-1.5'	soil	2010-06-22	00:00	2010-06-25
236002	AH-5 2-2.5'	soil	2010-06-22	00:00	2010-06-25
236003	AH-5 3-3.5'	soil	2010-06-22	00:00	2010-06-25
236004	AH-5 4-4.5'	soil	2010-06-22	00:00	2010-06-25
236005	AH-5 5-5.5'	soil	2010-06-22	00:00	2010-06-25
236006	AH-6 0-1'	soil	2010-06-22	00:00	2010-06-25
236007	AH-6 1-1.5'	soil	2010-06-22	00:00	2010-06-25
236008	AH-6 2-2.5'	soil	2010-06-22	00:00	2010-06-25
236009	AH-6 3-3.5'	soil	2010-06-22	00:00	2010-06-25

	BTEX			TPH DRO - NEW	TPH GRO	
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
235970 - AH-1 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	<2.00
235980 - AH-2 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	< 2.00
235986 - AH-3 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	<2.00
235992 - AH-4 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	<2.00
236000 - AH-5 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	<2.00
236006 - AH-6 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	$<\!50.0$	< 2.00

#### Sample: 235970 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		11800	mg/Kg	4.00

#### Sample: 235971 - AH-1 1-1.5'

Param	Flag	Result	Units	$RL_{-}$
Chloride		14500	mg/Kg	4.00

#### Sample: 235972 - AH-1 2-2.5'

Param	Flag	Result	Units	$\mathbf{RL}$
Chloride		18400	mg/Kg	4.00

#### Sample: 235973 - AH-1 3-3.5'

Param	Flag	Result	Units	$\mathbf{RL}$
Chloride		17900	mg/Kg	4.00

#### Sample: 235974 - AH-1 4-4.5'

Report Date: July 2, 2010		Date: July 2, 2010 Work Order: 10062809 Page N		lumber: 3 of 7	
Param	Flag	Result	Units	$\operatorname{RL}$	
Chloride		15000	mg/Kg	4.00	
Sample: 235975	- AH-1 5-5.5'				
Param	Flag	Result	Units	$\operatorname{RL}$	
Chloride		14200	mg/Kg	4.00	
		l			
Sample: 235976	- AH-1 6-6.5'				
Param	Flag	Result	Units	RL	
Chloride		13200	mg/Kg	4.00	
Sample: 235977	- AH-1 7-7.5'				
Param	$\mathbf{Flag}$	Result	Units	$\operatorname{RL}$	
Chloride		914	mg/Kg	4.00	
Sample: 235978	- AH-1 8-8.5'				
Param	Flag	Result	Units	$\mathbf{RL}$	
Chloride		485	mg/Kg	4.00	
Sample: 235979	- AH-1 9-9.5'				
Param	Flag	Result	Units	RL	
<u></u>	0	257	mg/Kg	4.00	
Chloride					
	- AH-2 0-1'				
Sample: 235980		Result	Units	RL	
Sample: 235980 Param	- <b>AH-2 0-1'</b> Flag			RL 4.00	
Chloride Sample: 235980 Param Chloride Sample: 235981	Flag	Result	Units		
Sample: 235980 Param Chloride	Flag	Result	Units		

#### Sample: 235982 - AH-2 2-2.5'

Param	$\mathbf{Flag}$	Result	Units	RL
Chloride		13300	mg/Kg	4.00
Sample: 235983	- AH-2 3-3.5'			
Param	Flag	Result	Units	$\mathbf{RL}$
Chloride		10100	mg/Kg	4.00
Sample: 235984	- AH-2 4-4.5'			
Param	Flag	Result	Units	$\mathbf{RL}$
Chloride		6470	mg/Kg	4.00
Sample: 235985	- AH-2 5-5.5'			
Param	Flag	$\mathbf{Result}$	Units	RL
Chloride		892	mg/Kg	4.00
Sample: 235986 Param Chloride	- AH-3 0-1' Flag	Result 5480	Units mg/Kg	RL 4.00
Sample: 235987	- AH-3 1-1.5'			
Param	Flag	Result	Units	$\mathbf{RL}$
Chloride	U	1290	mg/Kg	4.00
Sample: 235988	- AH-3 2-2.5'			
Param	Flag	Result	Units	RL
Chloride		1780	mg/Kg	4.00
Sample: 235989	- AH-3 3-3.5'			
Param	$\mathbf{Flag}$	Result	Units	$\operatorname{RL}$
Chloride		<400	mg/Kg	4.00

#### Sample: 235990 - AH-3 4-4.5'

	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00
Sample: 235991	- AH-3 5-5.5'			
Param	Flag	Result	Units	RL
Chloride		982	mg/Kg	4.00
Sample: 235992	- AH-4 0-1'			
Param	Flag	Result	Units	$\operatorname{RL}$
Chloride		3970	mg/Kg	4.00
Sample: 235993	- AH-4 1-1.5'			
Param	Flag	Result	Units	$\operatorname{RL}$
Chloride		<200	mg/Kg	4.00
	- AH-4 2-2.5' Flag	Result <200	Units mg/Kg	RL 4.00
Param Chloride	Flag	Result <200	Units mg/Kg	RL 4.00
Param Chloride Sample: 235995	Flag - AH-4 3-3.5'	<200	mg/Kg	4.00
Param Chloride	Flag			
Param Chloride Sample: 235995 Param	Flag - AH-4 3-3.5' Flag	<200 Result	mg/Kg Units	4.00 RL
Param Chloride Sample: 235995 Param Chloride Sample: 235996 Param	Flag - AH-4 3-3.5' Flag	<200 Result 213 Result	mg/Kg Units mg/Kg Units	4.00 RL
Param Chloride Sample: 235995 Param Chloride Sample: 235996	Flag - AH-4 3-3.5' Flag - AH-4 4-4.5'	<200 Result 213	mg/Kg Units mg/Kg	4.00 RL 4.00
Param Chloride Sample: 235995 Param Chloride Sample: 235996 Param Chloride	Flag - AH-4 3-3.5' Flag - AH-4 4-4.5' Flag	<200 Result 213 Result	mg/Kg Units mg/Kg Units	4.00 RL 4.00
Param Chloride Sample: 235995 Param Chloride Sample: 235996 Param	Flag - AH-4 3-3.5' Flag - AH-4 4-4.5' Flag	<200 Result 213 Result	mg/Kg Units mg/Kg Units	4.00 RL 4.00

Sample:	235998 -	AH-4	6-6.5'
---------	----------	------	--------

Param	Flag	Result	Units	RL
Chloride		594	mg/Kg	4.00
Sample: 235999 -	- AH-4 7-7.5'			
Param	Flag	Result	Units	RL
Chloride	1 145	<200	mg/Kg	4.00
Sample: 236000 ·	- AH-5 0-1'			
Param	Flag	Result	Units	RL
Chloride		13100	mg/Kg	4.00
Sample: 236001 -	- AH-5 1-1.5'			
Param	Flag	Result	Units	RL
Chloride		13200	mg/Kg	4.00
	- AH-5 2-2.5'			
Sample: 236002 -	- <b>AH-5 2-2.5'</b> Flag	Result	Units	RL
Sample: 236002 - Param		Result 13300	Units mg/Kg	
Sample: 236002 - Param Chloride	Flag			
Sample: 236002 - Param Chloride Sample: 236003 -	Flag			4.00
Sample: 236002 - Param Chloride Sample: 236003 -	Flag - AH-5 3-3.5'	13300	mg/Kg	4.00 RL
Sample: 236002 - Param Chloride Sample: 236003 - Param	Flag - AH-5 3-3.5' Flag	13300 Result	mg/Kg Units	RL 4.00 RL 4.00
Sample: 236002 - Param Chloride Sample: 236003 - Param Chloride Sample: 236004 - Param	Flag - AH-5 3-3.5' Flag	13300 Result	mg/Kg Units	4.00 RL
Sample: 236002 - Param Chloride Sample: 236003 - Param Chloride Sample: 236004 - Param	Flag - AH-5 3-3.5' Flag - AH-5 4-4.5'	13300 Result 7790	mg/Kg Units mg/Kg	4.00 RL 4.00
Sample: 236002 - Param Chloride Sample: 236003 - Param Chloride	Flag - AH-5 3-3.5' Flag - AH-5 4-4.5' Flag	13300 Result 7790 Result	mg/Kg Units mg/Kg Units	4.00 RL 4.00
Sample: 236002 - Param Chloride Sample: 236003 - Param Chloride Sample: 236004 - Param Chloride	Flag - AH-5 3-3.5' Flag - AH-5 4-4.5' Flag	13300 Result 7790 Result	mg/Kg Units mg/Kg Units	4.00 RL 4.00

.

#### Sample: 236006 - AH-6 0-1'

Param	Flag	Result	Units	$\operatorname{RL}$
Chloride		12500	mg/Kg	4.00
Sample: 236007	- AH-6 1-1.5'			
Param	Flag	Result	Units	$\mathbf{RL}$
Chloride	· ····	5940	mg/Kg	4.00
Sample: 236008 Param	- AH-6 2-2.5' Flag	Result	Units	$\mathbf{RL}$
Chloride	Гад	792	mg/Kg	4.00
Sample: 236009	- AH-6 3-3.5'			
Param	$\mathbf{Flag}$	Result	Units	RL

Param	Flag	Result	Units	RL
Chloride		401	mg/Kg	4.00

# MILLING TRACEANALYSIS, INC. MILLING MILLING

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FAX 806 • 794 • 1298 FAX 915 • 585 • 4944 FAX 432 • 689 • 6313

**WBENC:** 237019

HUB:1752439743100-86536NCTRCAWFWB38444Y0909

Certifications

**DBE:** VN 20657

### **NELAP** Certifications

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

# Analytical and Quality Control Report

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

Report Date: July 2, 2010

Work Order: 10062809

Project Location:Eddy County, NMProject Name:COG/Big George Line LeafProject Number:114-6400557

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
235970	AH-1 0-1'	soil	2010-06-22	00:00	2010-06-25
235971	AH-1 1-1.5'	soil	2010-06-22	00:00	2010-06-25
235972	AH-1 2-2.5'	soil	2010-06-22	00:00	2010-06-25
235973	AH-1 3-3.5'	soil	2010-06-22	00:00	2010-06-25
235974	AH-1 4-4.5'	soil	2010-06-22	00:00	2010-06-25
235975	AH-1 5-5.5'	soil	2010-06-22	00:00	2010-06-25
235976	AH-1 6-6.5'	soil	2010-06-22	00:00	2010-06-25
235977	AH-1 7-7.5'	soil	2010-06-22	00:00	2010-06-25
235978	AH-1 8-8.5'	soil	2010-06-22	00:00	2010-06-25
235979	AH-1 9-9.5'	soil	2010-06-22	00:00	2010-06-25

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
235980	AH-2 0-1'	soil	2010-06-22	00:00	2010-06-25
235981	AH-2 1-1.5'	soil	2010-06-22	00:00	2010-06-25
235982	AH-2 2-2.5'	soil	2010-06-22	00:00	2010-06-25
235983	AH-2 3-3.5'	soil	2010-06-22	00:00	2010-06-25
235984	AH-2 4-4.5'	soil	2010-06-22	00:00	2010-06-25
235985	AH-2 5-5.5'	soil	2010-06-22	00:00	2010-06-25
235986	AH-3 0-1'	soil	2010-06-22	00:00	2010-06-25
235987	AH-3 1-1.5'	soil	2010-06-22	00:00	2010-06-25
235988	AH-3 2-2.5'	soil	2010-06-22	00:00	2010-06-25
235989	AH-3 3-3.5'	soil	2010-06-22	00:00	2010-06-25
235990	AH-3 4-4.5'	soil	2010-06-22	00:00	2010-06-25
235991	AH-3 5-5.5'	soil	2010-06-22	00:00	2010-06-25
235992	AH-4 0-1'	soil	2010-06-22	00:00	2010-06-25
235993	AH-4 1-1.5'	soil	2010-06-22	00:00	2010-06-25
235994	AH-4 2-2.5'	soil	2010-06-22	00:00	2010-06-25
235995	AH-4 3-3.5'	soil	2010-06-22	00:00	2010-06-25
235996	AH-4 4-4.5'	soil	2010-06-22	00:00	2010-06-25
235997	AH-4 5-5.5'	soil	2010-06-22	00:00	2010-06-25
235998	AH-4 6-6.5'	soil	2010-06-22	00:00	2010-06-25
235999	AH-4 7-7.5'	soil	2010-06-22	00:00	2010-06-25
236000	AH-5 0-1'	soil	2010-06-22	00:00	2010-06-25
236001	AH-5 1-1.5'	soil	2010-06-22	00:00	2010-06-25
236002	AH-5 2-2.5'	soil	2010-06-22	00:00	2010-06-25
236003	AH-5 3-3.5'	soil	2010-06-22	00:00	2010-06-25
236004	AH-5 4-4.5'	soil	2010-06-22	00:00	2010-06-25
236005	AH-5 5-5.5'	soil	2010-06-22	00:00	2010-06-25
236006	AH-6 0-1'	soil	2010-06-22	00:00	2010-06-25
236007	AH-6 1-1.5'	soil	2010-06-22	00:00	2010-06-25
236008	AH-6 2-2.5'	soil	2010-06-22	00:00	2010-06-25
236009	AH-6 3-3.5'	soil	2010-06-22	00:00	2010-06-25

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

This report consists of a total of 37 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael april

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

Standard Flags

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

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# **Case Narrative**

Samples for project COG/Big George Line Leaf were received by TraceAnalysis, Inc. on 2010-06-25 and assigned to work order 10062809. Samples for work order 10062809 were received intact at a temperature of 3.4 C.

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

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• •				
	Prep	Prep	$\mathbf{QC}$	Analysis
Method	Batch	Date	Batch	Date
S 8021B	61074	2010-06-29 at 08:30	71320	2010-06-29 at 10:05
S 8021B	61074	2010-06-29 at 08:30	71322	2010-06-30 at 04:04
SM 4500-Cl B	61118	2010-06-30 at 14:36	71396	2010-07-01 at 16:05
SM 4500-Cl B	61119	2010-06-30 at 14:36	71397	2010-07-01 at 16:06
SM 4500-Cl B	61120	2010-06-30 at 14:37	71423	2010-07-02 at 15:10
SM 4500-Cl B	61121	2010-06-30 at 14:37	71424	2010-07-02 at 15:11
SM 4500-Cl B	61122	2010-06-30 at 14:38	71425	2010-07-02 at 15:12
S 8015 D	61097-	2010-06-29 at 16:03	71314	2010-06-29 at $16:03$
S 8015 D	61074	2010-06-29 at 08:30	71321	2010-06-29 at 10:33
S 8015 D	61074	2010-06-29 at 08:30	71323	2010-06-30 at 04:32
	S 8021B S 8021B SM 4500-Cl B SM 4500-Cl B SM 4500-Cl B SM 4500-Cl B SM 4500-Cl B SM 4500-Cl B S 8015 D S 8015 D	MethodBatchS 8021B61074S 8021B61074S 8021B61074SM 4500-Cl B61118SM 4500-Cl B61120SM 4500-Cl B61121SM 4500-Cl B61122S 8015 D61097-S 8015 D61074	MethodBatchDateS 8021B610742010-06-29 at 08:30S 8021B610742010-06-29 at 08:30SM 4500-Cl B611182010-06-30 at 14:36SM 4500-Cl B611192010-06-30 at 14:36SM 4500-Cl B611202010-06-30 at 14:37SM 4500-Cl B611212010-06-30 at 14:37SM 4500-Cl B611212010-06-30 at 14:37SM 4500-Cl B611222010-06-30 at 14:37SM 4500-Cl B611222010-06-30 at 14:38S 8015 D61097-2010-06-29 at 16:03S 8015 D610742010-06-29 at 08:30	MethodBatchDateBatchS 8021B610742010-06-29 at 08:3071320S 8021B610742010-06-29 at 08:3071322SM 4500-Cl B611182010-06-30 at 14:3671396SM 4500-Cl B611192010-06-30 at 14:3671397SM 4500-Cl B611202010-06-30 at 14:3771423SM 4500-Cl B611212010-06-30 at 14:3771424SM 4500-Cl B611222010-06-30 at 14:3871425SM 4500-Cl B611222010-06-30 at 14:3871425S 8015 D61097-2010-06-29 at 16:0371314S 8015 D610742010-06-29 at 08:3071321

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 10062809 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: 235970 - AH-1 0-1'

Laboratory:	Midland							
Analysis:	BTEX		Analytical	Method:	S 8021B		Prep Met	hod: S 5035
QC Batch:	71320		Date Analy	zed:	2010-06-29		Analyzed	By: AG
Prep Batch:	61074		Sample Pre	paration:	2010-06-29		Prepared	By: AG
			RL					
Parameter	Flag	r .	Result		Units	Di	ilution	$\mathbf{RL}$
Benzene			< 0.0200		mg/Kg		1	0.0200
Toluene			< 0.0200	ł	mg/Kg		1	0.0200
Ethylbenzene			< 0.0200		mg/Kg		1	0.0200
Xylene			< 0.0200	I	mg/Kg		1	0.0200
						Spike	Percent	Recovery
Surrogate		Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluen	e (TFT)		2.21	mg/Kg	1	2.00	110	52.8 - 137
4-Bromofluoro	benzene (4-BFB)		2.01	mg/Kg	1	2.00	100	38.4 - 157

#### Sample: 235970 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71396	Date Analyzed:	2010-07-01	Analyzed By:	AR
Prep Batch:	61118	Sample Preparation:	2010-06-30	Prepared By:	AR
		RL		·	
Parameter	Flag	Result	Units	Dilution	RL
Chloride		11800	mg/Kg	100	4.00

#### Sample: 235970 - AH-1 0-1'

N/A
kg
kg
-
$\operatorname{RL}$
50.0
k k

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Surrogate	Flag	Result	Units	Dilut	ion	Spike Amount	Percent Recovery	$\mathbf{L}$	covery imits
n-Tricosane		92.6	mg/Kg	1		100	93	70	- 130
Sample: 23	5970 - AH-1 0-1	,							
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 71321 61074		Analytical Date Anal Sample Pr		S 8015 D 2010-06-29 2010-06-29		Prep Meth Analyzed Prepared 1	By:	S 5035 AG AG
_			RL						
$\frac{Parameter}{GRO}$	Flag		Result		Units		Dilution		$\frac{\text{RL}}{2.00}$
<u>GRU</u>			<2.00		mg/Kg		1		2.00
Surrogate		Flag	Result	Units	Dilution			Li	covery mits
Trifluorotolu	ene (TFT) robenzene (4-BFB)		2.57 $2.17$	mg/Kg mg/Kg	1 1	2.00 2.00	128 108		5 - 152 - 159
Sample: 23	5971 - AH-1 1-1	.5'		<u> </u>					
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titratio 71396 61118		Date A	tical Method Analyzed: e Preparatio	2010-0		Prep Me Analyze Preparec	d By:	N/A AR AR
Parameter	Flag		$\operatorname{RL}$ Result		Units		Dilution		$\mathbf{RL}$
Chloride			14500		mg/Kg		100		4.00
Sample: 23 Laboratory: Analysis: QC Batch: Prep Batch:	5 <b>972 - AH-1 2-2</b> Midland Chloride (Titratio 71396 61118		Date A	cical Method Analyzed: e Preparatio	2010-01		Prep Me Analyzeo Prepareo	d By:	N/A AR AR

Prep Batch: 6111	8	Sample Preparation:	2010-06-30	Prepared By:	AR
		RL			
Parameter	Flag	$\operatorname{Result}$	Units	Dilution	$\operatorname{RL}$
Chloride		18400	ng/Kg	100	4.00

#### Sample: 235973 - AH-1 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM $4500$ -Cl B	Prep Method:	N/A
QC Batch:	71396	Date Analyzed:	2010-07-01	Analyzed By:	AR
Prep Batch:	61118	Sample Preparation:	2010-06-30	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		17900	mg/Kg	100	4.00

#### Sample: 235974 - AH-1 4-4.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 71396	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-01 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	$\operatorname{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
Chloride		15000	mg/Kg	100	4.00

#### Sample: 235975 - AH-1 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71396	Date Analyzed:	2010-07-01	Analyzed By:	AR
Prep Batch:	61118	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		D.I.			
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride	· · · · · · · · · · · · · · · · · · ·	14200	mg/Kg	100	4.00

#### Sample: 235976 - AH-1 6-6.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 71396	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-01 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	$\operatorname{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
Chloride		13200	mg/Kg	100	4.00

#### Sample: 235977 - AH-1 7-7.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71396 61118	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-01 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
Parameter	Flag	RL	Units	Dilution	RL
Chloride		Result	mg/Kg	100	4.00

#### Sample: 235978 - AH-1 8-8.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71397 61119	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-01 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		$\mathbf{RL}$			
Parameter	$\operatorname{Flag}$	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		485	mg/Kg	100	4.00

#### Sample: 235979 - AH-1 9-9.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71397	Date Analyzed:	2010-07-01	Analyzed By:	$\mathbf{AR}$
Prep Batch:	61119	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		RL			
Parameter	Flag	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		257	mg/Kg	50	4.00

#### Sample: 235980 - AH-2 0-1'

Laboratory: Analysis: QC Batch:	Midland BTEX 71320		Analytical Method: Date Analyzed:	S 8021B 2010-06-29	Prep Method: Analyzed By:	
•			Ŭ		Ç Ç	
Prep Batch:	61074		Sample Preparation:	2010-06-29	Prepared By:	AG
			$\mathbf{RL}$			
Parameter		Flag	Result	Units	Dilution	$\operatorname{RL}$
Benzene			<0.0200	mg/Kg	1	0.0200
Toluene			< 0.0200	mg/Kg	1	0.0200

continued ...

### sample 235980 continued ....

			$\operatorname{RL}$					
Parameter	Flag		$\mathbf{Result}$		Units	Di	lution	$\operatorname{RL}$
Ethylbenzene			< 0.0200		mg/Kg		1	0.0200
Xylene			< 0.0200	•	mg/Kg		1	0.0200
						Spike	Percent	Recovery
Surrogate	F	Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	52.8 - 137
4-Bromofluorobenzene (4-BE	FB)		1.85	mg/Kg	1	2.00	92	38.4 - 157

### Sample: 235980 - AH-2 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71397 61119	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-01 2010-06-30	Prep Method: Analyzed By: Prepared By:	$\mathbf{AR}$
		RL			
Parameter	$\mathbf{Flag}$	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		17100	mg/Kg	100	4.00

### Sample: 235980 - AH-2 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - N 71314 61097	₩EW	Date A1	nalyzed:	S 8015 D 2010-06-29 2010-06-29	Prep M Analyz Prepare	* 0
Parameter	F	lag	$\operatorname{RL}$ Result	τ	Jnits	Dilution	RL
DRO			<50.0		ç/Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		113	mg/Kg	1	100	113	70 - 130

#### Sample: 235980 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S $5035$
QC Batch:	71321	Date Analyzed:	2010-06-29	Analyzed By:	AG
Prep Batch:	61074	Sample Preparation:	2010-06-29	Prepared By:	AG

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Parameter	Flag		RL Result		Units	D	vilution	$\mathbf{RL}$
GRO			<2.00		mg/Kg		1	2.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (T	FT)	ÿ	2.38	mg/Kg	1	2.00	119	48.5 - 152
4-Bromofluorobenz			2.02	mg/Kg	1	2.00	101	42 - 159

# Sample: 235981 - AH-2 1-1.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71397 61119	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-01 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		16200	mg/Kg	100	4.00

# Sample: 235982 - AH-2 2-2.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 71397	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-01 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	$\operatorname{Flag}$	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		13300	mg/Kg	100	4.00

### Sample: 235983 - AH-2 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71397	Date Analyzed:	2010-07-01	Analyzed By:	$\mathbf{AR}$
Prep Batch:	61119	Sample Preparation	: 2010-06-30	Prepared By:	$\mathbf{AR}$
		RL			
Parameter	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	$\operatorname{RL}$
Chloride		10100	mg/Kg	100	4.00

# Sample: 235984 - AH-2 4-4.5'

Laboratory: Analysis: QC Batch:	Midland Chloride (Titration) 71397	Analytical Method: Date Analyzed:	SM 4500-Cl B 2010-07-01	Prep Method: Analyzed By:	'
Prep Batch:		Sample Preparation			
Description		RL	Theite	Dilation	זת
Parameter	Flag	Result	Units	Dilution	$\underline{RL}$
Chloride		6470	mg/Kg	100	4.00

### Sample: 235985 - AH-2 5-5.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 71397	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-01 2010-06-30	Prep Method: Analyzed By: Prepared By:	$\mathbf{AR}$
		RL			
Parameter	$\operatorname{Flag}$	$\mathbf{Result}$	Units	Dilution	$\operatorname{RL}$
Chloride		892	mg/Kg	100	4.00

### Sample: 235986 - AH-3 0-1'

Laboratory: Midland							
Analysis: BTEX		Analytical M	Method:	S 8021B		Prep Meth	nod: S 5035
QC Batch: 71320		Date Analy	zed:	2010-06-29		Analyzed	By: AG
Prep Batch: 61074		Sample Pre	paration:	2010-06-29		Prepared	By: AG
		RL					
Parameter Flag		Result		$\mathbf{Units}$	D	ilution	$\mathbf{RL}$
Benzene		< 0.0200		mg/Kg		1	0.0200
Toluene		< 0.0200		mg/Kg		1	0.0200
Ethylbenzene		< 0.0200		mg/Kg		1	0.0200
Xylene		< 0.0200		mg/Kg		1	0.0200
					Spike	Percent	Recovery
Surrogate	Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.25	mg/Kg	1	2.00	62	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.11	mg/Kg	1	2.00	56	38.4 - 157

### Sample: 235986 - AH-3 0-1'

Laboratory: Analysis: QC Batch:	Midland Chloride (Titration) 71397	Analytical Method: Date Analyzed:	SM 4500-Cl B 2010-07-01	Prep Method: Analyzed By:	,
•		Ŭ			
Prep Batch:	61119	Sample Preparation:	2010-06-30	Prepared By:	Aſ
		RL			
Parameter	Flag	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		5480	mg/Kg	100	4.00

### Sample: 235986 - AH-3 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - NEW 71314 61097		Date A	Analytical Method: S Date Analyzed: 2 Sample Preparation: 2		Prep M Analyz Prepare	• •
Parameter	F	lag	$\operatorname{RL}$ Result		Units	Dilution	RL
DRO			< 50.0	m	g/Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		112	mg/Kg	1	100	112	70 - 130

#### Sample: 235986 - AH-3 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 71321 61074		Analytical Date Anal Sample Pr		S 8015 D 2010-06-29 2010-06-29		Prep Meth Analyzed Prepared	By: AG
			$\operatorname{RL}$					
Parameter	Flag		Result		Units	D	lution	$\mathbf{RL}$
GRO			<2.00		mg/Kg	······································	1	2.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		1.46	mg/Kg	1	2.00	73	48.5 - 152
4-Bromofluor	obenzene (4-BFB)		1.22	mg/Kg	1	2.00	61	42 - 159

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### Sample: 235987 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71397	Date Analyzed:	2010-07-01	Analyzed By:	$\mathbf{AR}$
Prep Batch:	61119	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		$\operatorname{RL}$			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		1290	mg/Kg	100	4.00

### Sample: 235988 - AH-3 2-2.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 71423	Analytical Method: Date Analyzed: Sample Preparation	2010-07-02	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		1780	mg/Kg	100	4.00

# Sample: 235989 - AH-3 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71423	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61120	Sample Preparation:	2010-06-30	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<400	mg/Kg	100	4.00

.

### Sample: 235990 - AH-3 4-4.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71423 61120	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-02 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		$\operatorname{RL}$			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<400	mg/Kg	100	4.00

# Sample: 235991 - AH-3 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71423	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61120	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		$\mathbf{RL}$			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		982	mg/Kg	100	4.00

# Sample: 235992 - AH-4 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland BTEX 71320 61074		Analytical M Date Analy Sample Prej	zed:	S 8021B 2010-06-29 2010-06-29		Prep Meth Analyzed Prepared	By: AG
			RL					
Parameter	Flag		Result		Units	Di	lution	$\mathbf{RL}$
Benzene			< 0.0200		mg/Kg		1	0.0200
Toluene			< 0.0200		mg/Kg		1	0.0200
Ethylbenzene			< 0.0200		mg/Kg		1	0.0200
Xylene		·····	< 0.0200		mg/Kg		1	0.0200
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)	<u>~</u>	1.84	mg/Kg	1	2.00	92	52.8 - 137
4-Bromofluor	obenzene (4-BFB)	. <u> </u>	1.65	mg/Kg	1	2.00	82	38.4 - 157

### Sample: 235992 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71423	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61120	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		$\mathbf{RL}$			
Parameter	$\operatorname{Flag}$	$\mathbf{Result}$	Units	Dilution	$\operatorname{RL}$
Chloride		<b>3970</b> r	ng/Kg	100	4.00
	Flag				

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# Sample: 235992 - AH-4 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Analysis: TPH DRO - NEW QC Batch: 71314		Date Ar	Analytical Method:S 8015 DDate Analyzed:2010-06-29Sample Preparation:2010-06-29		Prep M Analyz Prepar	ed By: kg
Parameter	F	lag	$\operatorname{RL}$ Result	Un	its	Dilution	RL
DRO			<50.0	mg/l		1	50.0
Surrogate	Flag	$\operatorname{Result}$	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		107	mg/Kg	1	100	107	70 - 130
Sample: 23 Laboratory: Analysis:	5 <b>992 - AH-4 (</b> Midland TPH GRO	)-1'	Analytical M	ethod: S 8015	D	Prep Met	hod: S 5035

Analysis: QC Batch:	TPH GRO 71321		Analytical Date Anal		S 8015 D 2010-06-29		Prep Meth Analyzed	
Prep Batch:	61074			reparation:	2010-06-29		Prepared	0
			$\mathbf{RL}$					
Parameter	$\operatorname{Flag}$		Result		Units	D	ilution	$\operatorname{RL}$
GRO			<2.00		mg/Kg		1	2.00
						Spike	Percent	Recovery
Surrogate		$\mathbf{F}$ lag	$\operatorname{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		2.14	mg/Kg	1	2.00	107	48.5 - 152
4-Bromofluor	robenzene (4-BFB)		1.79	mg/Kg	1	2.00	90	42 - 159

# Sample: 235993 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71423	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61120	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		$\mathbf{RL}$			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<200	mg/Kg	50	4.00

#### Sample: 235994 - AH-4 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71423	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61120	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		$\operatorname{RL}$			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<200	mg/Kg	50	4.00

# Sample: 235995 - AH-4 3-3.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71423 61120	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-02 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		213	mg/Kg	50	4.00

# Sample: 235996 - AH-4 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71423	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61120	Sample Preparation:	2010-06-30	Prepared By:	AR
		$\mathbf{RL}$			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		<200 1	ng/Kg	. 50	4.00

### Sample: 235997 - AH-4 5-5.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71423 61120	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-02 2010-06-30	Prep Method: Analyzed By: Prepared By:	N/A AR AR
_		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<200	mg/Kg	50	4.00

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# Sample: 235998 - AH-4 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71424	Date Analyzed:	2010-07-02	Analyzed By:	$\mathbf{AR}$
Prep Batch:	61121	Sample Preparation:	2010-06-30	Prepared By:	AR
		$\operatorname{RL}$			
Parameter	Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		594	mg/Kg	50	4.00

### Sample: 235999 - AH-4 7-7.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71424 61121	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-02 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<200	mg/Kg	50	4.00

### Sample: 236000 - AH-5 0-1'

Analysis: 1 QC Batch:	Midland BTEX 71322 61074		Analytical I Date Analy Sample Pre	zed:	S 8021B 2010-06-30 2010-06-29		Prep Meth Analyzed Prepared	By: AG
			$\mathbf{RL}$					
Parameter	Flag		Result		Units	Di	lution	$\mathbf{RL}$
Benzene			< 0.0200		mg/Kg		1	0.0200
Toluene			< 0.0200		mg/Kg		1	0.0200
Ethylbenzene			< 0.0200		mg/Kg		1	0.0200
Xylene			< 0.0200		mg/Kg		1	0.0200
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluen	ie (TFT)		1.42	mg/Kg	1	2.00	71	52.8 - 137
4-Bromofluoro	benzene (4-BFB)		1.27	mg/Kg	1	2.00	64	38.4 - 157

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### Sample: 236000 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71424	Date Analyzed:	2010-07-02	Analyzed By:	$\mathbf{AR}$
Prep Batch:	61121	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		RL			
Parameter	$\mathbf{F}$ lag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		<b>13100</b>	mg/Kg	100	4.00
				<u> </u>	

# Sample: 236000 - AH-5 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - 71314 61097	NEW	Date Ar	cal Method: nalyzed: Preparation:	S 8015 D 2010-06-29 2010-06-29	Prep M Analyz Prepar	. 0
Parameter	I	Plag	${f RL}$	1	Units	Dilution	RL
DRO			< 50.0	m	g/Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		106	mg/Kg	1	100	106	70 - 130

# Sample: 236000 - AH-5 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 71323 61074		Analytical Date Anal Sample Pr		S 8015 D 2010-06-30 2010-06-29		Prep Metl Analyzed Prepared	By: AG
			$\mathbf{RL}$					
Parameter	Flag		Result		Units	D	ilution	$\operatorname{RL}$
GRO			<2.00		mg/Kg		1	2.00
						Spike	Percent	Recovery
Surrogate		Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.67	mg/Kg	1	2.00	84	48.5 - 152
4-Bromofluor	cobenzene (4-BFB)		1.40	mg/Kg	1	2.00	70	42 - 159

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# Sample: 236001 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71424	Date Analyzed:	2010-07-02	Analyzed By:	$\mathbf{AR}$
Prep Batch:	61121	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		RL			
Parameter	$\mathbf{F}$ lag	Result	Units	Dilution	RL
Chloride	· · · ·	13200	mg/Kg	100	4.00

### Sample: 236002 - AH-5 2-2.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71424 61121	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-02 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		13300	mg/Kg	100	4.00

# Sample: 236003 - AH-5 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71424	Date Analyzed:	2010-07-02	Analyzed By:	$\mathbf{AR}$
Prep Batch:	61121	Sample Preparation:	2010-06-30	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbb{RL}$
Chloride		7790	ng/Kg	100	4.00

# Sample: 236004 - AH-5 4-4.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 71424 61121	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-07-02 2010-06-30	Prep Method: Analyzed By: Prepared By:	AR
Danamatan	Flore	RL Boyult	Unito	Dilution	זס
Parameter Chloride	Flag	Result 495	Units mg/Kg	Dilution 100	$\frac{\mathrm{RL}}{4.00}$

### Sample: 236005 - AH-5 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71424	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61121	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		$\operatorname{RL}$			
Parameter	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride		812	mg/Kg	100	4.00

### Sample: 236006 - AH-6 0-1'

Analysis: B QC Batch: 7	fidland TEX 1322 1074		Analytical M Date Analy Sample Prej	zed:	S 8021B 2010-06-30 2010-06-29		Prep Meth Analyzed I Prepared I	By: AG
			$\mathbf{RL}$					
Parameter	Flag		Result		Units	Di	lution	$\mathbf{RL}$
Benzene			<0.0200		mg/Kg		1	0.0200
Toluene			< 0.0200		mg/Kg		1	0.0200
Ethylbenzene			< 0.0200		mg/Kg		1	0.0200
Xylene			< 0.0200		mg/Kg		1	0.0200
						Spike	Percent	Recovery
Surrogate		Flag	$\operatorname{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene	e (TFT)		1.16	mg/Kg	1	2.00	58	52.8 - 137
4-Bromofluorob	enzene (4-BFB)		1.03	mg/Kg	1	2.00	52	38.4 - 157

# Sample: 236006 - AH-6 0-1'

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Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71424	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61121	Sample Preparation:	2010-06-30	Prepared By:	AR
		RL			
Parameter	$\mathbf{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
Chloride		12500	mg/Kg	100	4.00

### Sample: 236006 - AH-6 0-1'

Laboratory:	Midland						
Analysis:	TPH DRO - N	NEW	Analyti	cal Method: S	S 8015 D	Prep M	lethod: N/A
QC Batch:	71314		Date A	nalyzed: 2	2010-06-29	Analyz	ed By: kg
Prep Batch:	61097		Sample	Preparation:	2010-06-29	Prepar	ed By: kg
			$\operatorname{RL}$				
Parameter	$\mathbf{F}$	lag	$\mathbf{Result}$	U	nits	Dilution	$\operatorname{RL}$
DRO			<50.0	mg/	/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	$\mathbf{F}\mathbf{lag}$	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		111	mg/Kg	1	100	111	70 - 130

# Sample: 236006 - AH-6 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 71323 61074		Analytical Date Anal Sample Pr		S 8015 D 2010-06-30 2010-06-29		Prep Meth Analyzed Prepared	By: AG
			$\mathbf{RL}$					
Parameter	Flag		$\operatorname{Result}$		$\mathbf{U}$ nits	D	ilution	$\operatorname{RL}$
GRO			<2.00		mg/Kg		1	2.00
~						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.34	mg/Kg	1	2.00	67	48.5 - 152
4-Bromofluor	obenzene (4-BFB)		1.14	mg/Kg	1	2.00	57	42 - 159

### Sample: 236007 - AH-6 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71424	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61121	Sample Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$
		$\mathbf{RL}$			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		5940	mg/Kg	100	4.00

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# Sample: 236008 - AH-6 2-2.5'

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Chloride		792	mg/Kg	100	4.00
Parameter	Flag	RL Result	Units	Dilution	RL_
Prep Batch:	61122	Sample Preparation:	2010-07-02	Prepared By:	AR
QC Batch:	71425	Date Analyzed:	2010-07-02	Analyzed By:	$\mathbf{AR}$
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	'
Laboratory:	Midland				

# Sample: 236009 - AH-6 3-3.5'

Plag	DŤ		07-02	Preparec	d By: AR d By: AR
	RL Result	Unit	g	Dilution	$\mathbf{RL}$
- 145	401	mg/K		100	4.00
C Batch: 71314					
	Date Analyzed: QC Preparation:			Analyz Prepar	ed By: kg ed By: kg
Flag				Units	RL
				mg/Kg	50
Result	Units I	Dilution	Spike Amount	Percent Recovery	Recovery Limits
86.9	mg/Kg	1	100	87	70 - 130
C Batch: 71320					
	Date Analyzed: QC Preparation:	2010-06-29 2010-06-29		Analyze Prepare	•
Dl				TT	DI
riag					RL 0.02
		Date Analyzed: QC Preparation: M Flag Res <1 Result Units I 86.9 mg/Kg QC Batch: 71320 Date Analyzed: QC Preparation: Flag F	Date Analyzed: 2010-06-29 QC Preparation: 2010-06-29 MDL Flag Result <14.5 Result Units Dilution 86.9 mg/Kg 1 QC Batch: 71320 Date Analyzed: 2010-06-29 QC Preparation: 2010-06-29 MDL	Date Analyzed: 2010-06-29 QC Preparation: 2010-06-29 MDL Flag Result <14.5 <u>Spike</u> <u>Amount</u> 86.9 mg/Kg 1 100 QC Batch: 71320 Date Analyzed: 2010-06-29 QC Preparation: 2010-06-29 MDL Flag MDL Result	Date Analyzed:       2010-06-29       Analyzed:         QC Preparation:       2010-06-29       Preparation         MDL       Units       Units          <14.5

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method blank continued							
Parameter Flag		M Res	DL mlt	Uni	ts		$\mathbf{RL}$
Toluene	<u> </u>	< 0.00		mg/l			0.02
Ethylbenzene		< 0.0		mg/l			0.02
Xylene		< 0.00	930	mg/l	Kg		0.02
				Spike	Percent	Reco	overy
Surrogate Fla		Units	Dilution	Amount	Recovery		nits
Trifluorotoluene (TFT)	2.19	mg/Kg	1	2.00	110		- 122
4-Bromofluorobenzene (4-BFB)	1.60	mg/Kg	1	2.00	80	55.4	- 104
Method Blank (1) QC Batch: 71	321						
QC Batch: 71321	Date Ana	alyzed: 2	2010-06-29		Analyz	ed By:	AG
Prep Batch: 61074	QC Prep		2010-06-29		Prepar		AG
		MDI					
Parameter Flag		Result		Unit	S		$\mathbf{RL}$
GRO		<1.65	5	mg/K		2	
Surrogate Fla	g Result	Units	Dilution	Spike Amount	Percent Recovery	Reco Lin	overy nits
Trifluorotoluene (TFT)	2.59	mg/Kg	1	2.00	130	67.6	
4-Bromofluorobenzene (4-BFB)	1.77	mg/Kg	1	2.00	88	52.4	- 130
Method Blank (1) QC Batch: 71	322						
QC Batch: 71322	Date Ana	alyzed: 2	2010-06-30		Analyz	ed By:	AG
Prep Batch: 61074	QC Prep	aration: 2	2010-06-29		Prepar	ed By:	AG
			DL				
Parameter Flag		Res		Unit			RL
Benzene		< 0.02		mg/I			0.02
Toluene Ethylbenzene		200.00> 20.0>		mg/I mg/I			$\begin{array}{c} 0.02\\ 0.02\end{array}$
Xylene		<0.00		mg/I	÷		0.02
				Spike	Percent	Reco	overy
		Units	Dilution	Amount	Recovery	Lin	nits
Surrogate Flag	1.00	mg/Kg	1	2.00	98	66.6	- 122
Flag Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	$\begin{array}{c} 1.96 \\ 1.57 \end{array}$	mg/Kg	1	2.00	78	55.4	

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Method Blank (1)	QC Batch: 71323								
QC Batch: 71323 Prep Batch: 61074		Date Analyzed QC Preparatio		0-06-30 0-06-29		Analyze Prepare		AG AG	
Parameter	Flag	F	MDL Result		Units			RL	
GRO			<1.65	<u> </u>	mg/Kg			2	
Surrogate	Flag		nits	Dilution	Spike Amount	Percent Recovery	Liı	overy mits	
Trifluorotoluene (TFT) <u>4-Bromofluorobenzene (</u>	(4-BFB)	-	;/Kg ;/Kg	1 1	2.00 2.00	117 87		- 150 - 130	
Method Blank (1) QC Batch: 71396 Prep Batch: 61118	QC Batch: 71396	Date Analyzed QC Preparatio		0-07-01 0-06-30		Analyze Prepare		AR AR	
Parameter	Flag		MDL Result		Units			$\operatorname{RL}$	
Chloride			<2.18		mg/Kg			4	
Method Blank (1)	QC Batch: 71397		201						
QC Batch: 71397 Prep Batch: 61119		Date Analyzed QC Preparatio		)-07-01 )-06-30		Analyze Prepare	-	AR AR	
Parameter	Flag	F	MDL Result		Units			RL	
Chloride			<2.18		mg/Kg			4	
Method Blank (1)	QC Batch: 71423								
QC Batch: 71423 Prep Batch: 61120		Date Analyzed QC Preparation		0-07-02 0-06-30		Analyze Prepare		AR AR	
Parameter Chloride	Flag	R	$\frac{\text{MDL}}{\text{csult}}$		Units mg/Kg			$\frac{\text{RL}}{4}$	

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Method Blank (1)	QC Batch: 71	424								
QC Batch: 71424 Prep Batch: 61121			.nalyzed: eparation:	2010-07- 2010-06-					lyzed By pared By	
			M	DL						
Parameter	Flag		Res			τ	Inits			RL
Chloride			<2	2.18		m	g/Kg			4
Method Blank (1)	QC Batch: 71	425								
QC Batch: 71425		Date A	nalyzed:	2010-07-	-02			Ana	lyzed By	: AR
Prep Batch: 61122			eparation:						pared By	
-		•	-					-	, i	
Downster				DL		т	[m:+			זמ
Parameter Chloride	Flag	<u> </u>	Res	.18			nits g/Kg			$\frac{\text{RL}}{4}$
Laboratory Control	Spike (LCS-1)	Data (	haluzed		-20			Án	alvzed B	v ka
	Spike (LCS-1)		Analyzed: eparation:	2010-06					alyzed B pared B	
Laboratory Control QC Batch: 71314 Prep Batch: 61097	Spike (LCS-1)	QC Pr LCS	eparation:	2010-06 2010-06	-29 Spike	Ma	trix	Pre	pared B	y: kg Rec.
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param	Spike (LCS-1)	QC Pr LCS Result	eparation: Units	2010-06 2010-06 Dil.	-29 Spike Amount	Ma Re	$\operatorname{sult}$	Pre Rec.	pared B I L	y: kg Rec. Jimit
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO		QC Pr LCS Result 195 1	Units	2010-06 2010-06 Dil. 1	5-29 Spike Amount 250	Ma Re <1	sult .4.5	Pre Rec. 78	pared B I L	y: kg Rec.
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO		QC Pr LCS Result 195 1	Units	2010-06 2010-06 Dil. 1	5-29 Spike Amount 250	Ma Re <1	sult .4.5	Pre Rec. 78	pared B I L	y: kg Rec. .imit
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO		QC Pr LCS Result 195 n esult. RPD is	Units	2010-06 2010-06 Dil. 1	5-29 Spike Amount 250	Ma Re <1	sult .4.5 e rest	Pre Rec. 78	pared B I L	y: kg Rec. .imit
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is bas Param	ed on the spike re LCS Res	QC Pr LCS Result 195 1 esult. RPD is SD ult Units	eparation: Units ng/Kg based on Dil.	2010-06 2010-06 Dil. 1 the spike Spike Amount	Spike Amount 250 and spike c Matrix Result	Ma Re <1 luplicat Rec.	sult 4.5 e resu	Pre <u>Rec.</u> 78 ılt. Rec. Limit	pared B I L	y: kg Rec. <u>imit</u> - 133.4 RPD Limit
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is bas Param DRO	ed on the spike re LCS Rest	QC Pr LCS Result 195 1 soult. RPD is SD ult Units 2 mg/Kg	Units mg/Kg based on Dil.	2010-06 2010-06 Dil. 1 the spike Spike Amount 250	Spike Amount 250 and spike of Matrix Result <14.5	Ma Re <1 luplicat Rec. 81	sult 4.5 e resu 57.4	Pre <u>Rec.</u> 11t. Rec. Limit 4 - 133.4	pared B I L 57.4	y: kg Rec. imit - 133.4 RPD
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is bas Param DRO	ed on the spike re LCS Rest	QC Pr LCS Result 195 1 soult. RPD is SD ult Units 2 mg/Kg	Units mg/Kg based on Dil.	2010-06 2010-06 Dil. 1 the spike Spike Amount 250	Spike Amount 250 and spike of Matrix Result <14.5	Ma Re <1 luplicat Rec. 81	sult 4.5 e resu 57.4	Pre <u>Rec.</u> 11t. Rec. Limit 4 - 133.4	pared B I 57.4 RPD	y: kg Rec. <u>imit</u> - 133.4 RPD Limit
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is bas Param DRO	ed on the spike re LCS Res 20 red on the spike re	QC Pr LCS Result 195 1 soult. RPD is SD ult Units 2 mg/Kg	Units mg/Kg based on Dil.	2010-06 2010-06 Dil. 1 the spike Spike Amount 250	Spike Amount 250 and spike of Matrix Result <14.5 and spike of	Ma Re <1 luplicat Rec. 81 luplicat	sult 4.5 e resu 57.4 e resu	Pre <u>Rec.</u> 11t. Rec. Limit 4 - 133.4	Ppared B I 57.4 RPD 4	y: kg Rec. imit - 133.4 RPD Limit 20
Laboratory Control QC Batch: 71314	ed on the spike re LCS Res 20 ed on the spike re LCS L	QC Pr LCS Result 195 1 sult. RPD is SD ult Units 2 mg/Kg sult. RPD is CSD	Units mg/Kg based on Dil.	2010-06 2010-06 Dil. 1 the spike Spike Amount 250	Spike Amount 250 and spike of Matrix Result <14.5	Ma Re <1 luplicat Rec. 81 luplicat	sult 4.5 e resu 57.4	Pre <u>Rec.</u> 111. Rec. Limit 4 - 133.4 111.	Ppared B I 57.4 RPD 4	y: kg Rec. <u>imit</u> - 133.4 RPD Limit
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is bas Param DRO Percent recovery is bas Surrogate	ed on the spike re LCS Res 20 ed on the spike re LCS L Result R	QC Pr LCS Result 195 1 sult. RPD is SD ult Units 2 mg/Kg sult. RPD is CSD esult U	Units mg/Kg based on Dil. 1 based on	2010-06 $2010-06$ Dil. 1 the spike Spike Amount 250 the spike	Spike Amount 250 and spike of Matrix Result <14.5 and spike of Spike	Ma Re <1 luplicat Rec. 81 luplicat I F	sult 4.5 e resu 57.4 e resu CS	Pre <u>Rec.</u> 78 Ilt. Limit 4 - 133.4 Ilt. LCSI	Ppared B L 57.4 RPD 4	y: kg Rec. imit - 133.4 RPD Limit 20 Rec.
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is bas Param DRO Percent recovery is bas	eed on the spike re LCS Rest 20 red on the spike re LCS L Result R 102	QC Pr LCS Result 195 1 sult. RPD is SD ult Units 2 mg/Kg sult. RPD is CSD esult U	Units mg/Kg based on Dil. 1 based on Jnits	2010-06 2010-06 Dil. 1 the spike Spike Amount 250 the spike Dil.	Spike Amount 250 and spike of Matrix Result <14.5 and spike of Spike Amount	Ma Re <1 luplicat Rec. 81 luplicat I F	sult 4.5 e resu 57.4 e resu CS Rec.	Pre <u>Rec.</u> 111. Rec. Limit 4 - 133.4 111. LCSI Rec.	Ppared B L 57.4 RPD 4	y: kg Rec. <u>imit</u> - 133.4 RPD Limit 20 Rec. Limit
Laboratory Control QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is bas Param DRO Percent recovery is bas Surrogate n-Tricosane	eed on the spike re LCS Rest 20 red on the spike re LCS L Result R 102	QC Pr LCS Result 195 1 sult. RPD is SD ult Units 2 mg/Kg sult. RPD is CSD esult U	Units mg/Kg based on Dil. 1 based on Jnits	2010-06 2010-06 Dil. 1 the spike Spike Amount 250 the spike Dil.	Spike Amount 250 and spike of Matrix Result <14.5 and spike of Spike Amount 100	Ma Re <1 luplicat Rec. 81 luplicat I F	sult 4.5 e resu 57.4 e resu CS Rec.	Pre <u>Rec.</u> 11t. Rec. Limit 4 - 133.4 11t. LCSI <u>Rec.</u> 104	Ppared B L 57.4 RPD 4	y: kg Rec. <u>imit</u> - 133.4 RPD Limit 20 Rec. Limit 70 - 130

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	$\begin{array}{c} \mathrm{LCS} \\ \mathrm{Result} \end{array}$	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec.
Benzene	1.91	mg/Kg	1	2.00	< 0.0150	96	81.9 - 108
Toluene	1.89	mg/Kg	1	2.00	< 0.00950	94	81.9 - 107
Ethylbenzene	1.81	mg/Kg	1	2.00	< 0.0106	90	78.4 - 107
Xylene	5.44	mg/Kg	1	6.00	< 0.00930	91	79.1 - 107

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

	LCSD			Spike	Matrix		Rec.		$\mathbf{RPD}$
Param	$\operatorname{Result}$	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit	RPD	Limit
Benzene	1.89	mg/Kg	1	2.00	< 0.0150	94	81.9 - 108	1	20
Toluene	1.88	mg/Kg	1	2.00	< 0.00950	94	81.9 - 107	0	20
Ethylbenzene	1.80	mg/Kg	1	2.00	< 0.0106	90	78.4 - 107	1	20
Xylene	5.44	mg/Kg	1	6.00	< 0.00930	91	79.1 - 107	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	$\mathbf{Result}$	Result	Units	Dil.	Amount	Rec.	Rec.	$\mathbf{Limit}$
Trifluorotoluene (TFT)	2.00	2.16	mg/Kg	1	2.00	100	108	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.82	1.96	mg/Kg	1	2.00	91	98	69.8 - 121

### Laboratory Control Spike (LCS-1)

QC Batch:	71321	Date Analyzed:	2010-06-29	Analyzed By:	AG
Prep Batch:	61074	QC Preparation:	2010-06-29	Prepared By:	AG

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit
GRO	14.1	mg/Kg	1	20.0	<1.65	70	69.9 - 95.4

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{Result}$	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	$\mathbf{Limit}$	$\mathbf{RPD}$	Limit
GRO	14.4	mg/Kg	1	20.0	< 1.65	72	69.9 - 95.4	2	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	$\operatorname{Result}$	$\mathbf{Result}$	Units	Dil.	Amount	. Rec.	Rec.	$\mathbf{Limit}$
Trifluorotoluene (TFT)	2.48	2.21	mg/Kg	1	2.00	124	110	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.00	1.78	mg/Kg	1	2.00	100	89	68.2 - 132

### Laboratory Control Spike (LCS-1)

QC Batch:	71322	Date Analyzed:	2010-06-30	Analyzed By:	AG
Prep Batch:	61074	QC Preparation:	2010-06-29	Prepared By:	$\mathbf{AG}$

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Param	$\operatorname{LCS}$ Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.90	mg/Kg	1	2.00	< 0.0150	95	81.9 - 108
Toluene	1.88	mg/Kg	1	2.00	< 0.00950	94	81.9 - 107
Ethylbenzene	1.76	mg/Kg	1	2.00	< 0.0106	88	78.4 - 107
Xylene	5.30	mg/Kg	1	6.00	< 0.00930	88	79.1 - 107

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

	LCSD			Spike	Matrix		Rec.		$\operatorname{RPD}$
Param	$\operatorname{Result}$	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit	$\operatorname{RPD}$	Limit
Benzene	1.91	mg/Kg	1	2.00	< 0.0150	<u>9</u> 6	81.9 - 108	0	20
Toluene	1.88	mg/Kg	1	2.00	< 0.00950	94	81.9 - 107	0	20
Ethylbenzene	1.79	mg/Kg	1	2.00	< 0.0106	90	78.4 - 107	<b>2</b>	20
Xylene	5.37	mg/Kg	1	6.00	< 0.00930	90	79.1 - 107	1	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	$\mathbf{Result}$	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.05	2.09	mg/Kg	1	2.00	102	104	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.90	1.95	mg/Kg	1	2.00	95	98	69.8 - 121

### Laboratory Control Spike (LCS-1)

QC Batch:	71323	Date Analyzed:	2010-06-30	Analyzed By:	AG
Prep Batch:	61074	QC Preparation:	2010-06-29	Prepared By:	AG

	LCS			Spike	Matrix		Rec.
Param	$\mathbf{Result}$	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit
GRO	15.9	mg/Kg	1	20.0	<1.65	80	69.9 - 95.4

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	$\mathbf{Limit}$	RPD	Limit
GRO	16.0	mg/Kg	1	20.0	<1.65	80	69.9 - 95.4	1	20

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

Surrogate	LCS Result	$\begin{array}{c} \mathrm{LCSD} \\ \mathrm{Result} \end{array}$	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.46	2.47	mg/Kg	1	2.00	123	124	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.02	2.02	mg/Kg	1	2.00	101	101	68.2 - 132

### Laboratory Control Spike (LCS-1)

QC Batch:	71396	Date Analyzed:	2010-07-01	Analyzed By:	$\mathbf{AR}$
Prep Batch:	61118	QC Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$

Report Date: July 2, 2010 114-6400557				: 10062809 rge Line Lea	af			e Number Eddy Co	
Param	LCS Resu	lt	Units	Dil.	Spike Amount	Mat Res	sult	Rec.	Rec. Limit
Chloride	98.8	<u>8 n</u>	ng/Kg	1	100	<2	.18	99	85 - 115
Percent recovery is based on th	e spike result. l	RPD is b	ased on t	the spike an	d spike duj	olicate re	esult.		
	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limi
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115	5 I	20
ercent recovery is based on th	-	RPD is b	ased on t	the spike an	d spike duj	plicate re	esult.		
Laboratory Control Spike ( QC Batch: 71397		Date An	alvzed:	2010-07-03	1		А	nalyzed E	By: AR
Prep Batch: 61119		QC Prep	•	2010-06-30				repared E	•
Param	LCS Resu		Units	Dil.	Spike Amount	Mat Res		Rec.	Rec. Limit
Chloride			ng/Kg	<u> </u>	100			<u>99</u>	85 - 11
Percent recovery is based on th									00 11
creent recovery is based on th	-		aseu on		-	JICabe I			
	LCSD	<b>TT</b> •.	D:1	Spike	Matrix	Ð	Rec.	DDD	RPD
Param Chloride	Result 101	Units mg/Kg		Amount 100	$\frac{\text{Result}}{<2.18}$	Rec. 101	Limit 85 - 115	RPD 2	Limi 20
Percent recovery is based on th									
Laboratory Control Spike (	(LCS-1)								
QC Batch: 71423		Date An	alyzed:	2010-07-02	2		А	nalyzed E	By: AR
Prep Batch: 61120		QC Prep	aration:	2010-06-30	)		Р	repared E	By: AR
			<b>TT T</b> .	<b>D</b> (1	Spike	Ma		D	Rec.
Param	Resu		Units	Dil.	Amount	Res		Rec.	Limit
	98.3		ng/Kg	1 the spike an	100 d spike du		.18 esult.	98	85 - 11
······································	e spike result. l	RPD is d	ascu on i	1					
······	-	RPD is d	ascu on (	-			Rec		RPE
Percent recovery is based on th	LCSD			Spike	Matrix	Rec.	Rec. Limit	RPD	RPD Limi
Chloride Percent recovery is based on th Param Chloride	-	$\frac{\text{Units}}{\text{mg/Kg}}$	Dil.	-		Rec.	Rec. Limit 85 - 115	RPD	RPD Limi 20

QC Batch:	71424	Date Analyzed:	2010-07-02	Analyzed By:	AR
Prep Batch:	61121	QC Preparation:	2010-06-30	Prepared By:	$\mathbf{AR}$

Report Date: July 2, 201 114-6400557	10	We COG		~		28 of 37 unty, NM			
		CS			Spike	Mat			Rec.
Param		sult	Units	Dil.	Amount			ec.	Limit
Chloride			mg/Kg	1	100	<2.		9	85 - 115
Percent recovery is based	l on the spike result	. RPD is	based on	the spike a	nd spike d	uplicate re	sult.		
	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	100	mg/Kg		100	<2.18	100	85 - 115	1	20
Percent recovery is based				the spike a	nd spike d	uplicate re	sult.	······	
Laboratory Control S	pike (LCS-1)								
QC Batch: 71425		Date Ar	nalyzed:	2010-07-0	)2		Ana	lyzed B	y: AR
Prep Batch: 61122			paration:					pared B	•
*		-	-						
	т	CS			Spike	Mat	riv		Rec.
Param		esult	Units	Dil.	Amount			ec.	Limit
Chloride			mg/Kg	1	100	<u></u>		8	85 - 115
		· · · <del>· · · · · ·</del> · · · · ·				··· <b>-</b> .			00 110
Percent recovery is based	on the spike result	. RPD is	based on	the spike a	na spike av	iplicate re	suit.		
Percent recovery is based	l on the spike result	. RPD IS	based on	the spike a Spike	na spike a Matrix	iplicate re	Rec.		RPD
	LCSD Result	Units	based on Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	Limit
Param	LCSD		Dil.	Spike	Matrix		Rec.	RPD 3	
Param Chloride	LCSD Result 101	Units mg/Kg	Dil. g 1	Spike Amount 100	Matrix Result <2.18	Rec.	Rec. Limit 85 - 115		Limit
Param Chloride Percent recovery is based	LCSD Result 101 I on the spike result	Units mg/Kg RPD is	Dil. g 1	Spike Amount 100	Matrix Result <2.18	Rec.	Rec. Limit 85 - 115		Limit
Percent recovery is based Param Chloride Percent recovery is based Matrix Spike (MS-1)	LCSD Result 101	Units mg/Kg RPD is	Dil. g 1	Spike Amount 100	Matrix Result <2.18	Rec.	Rec. Limit 85 - 115		Limit
Param Chloride Percent recovery is based Matrix Spike (MS-1) QC Batch: 71314	LCSD Result 101 I on the spike result	Units mg/Kg RPD is 236006 Date A	Dil. g 1 based on nalyzed:	Spike Amount 100 the spike a 2010-06-	Matrix Result <2.18 nd spike do	Rec.	Rec. Limit 85 - 115 sult. Ar	3 alyzed 1	Limit 20 By: kg
Param Chloride Percent recovery is based Matrix Spike (MS-1) QC Batch: 71314	LCSD Result 101 I on the spike result	Units mg/Kg RPD is 236006 Date A	Dil. g 1 based on	Spike Amount 100 the spike a 2010-06-	Matrix Result <2.18 nd spike do	Rec.	Rec. Limit 85 - 115 sult. Ar	3	Limit 20 By: kg
Param Chloride Percent recovery is based Matrix Spike (MS-1) QC Batch: 71314	LCSD Result 101 I on the spike result	Units mg/Kg RPD is 236006 Date A	Dil. g 1 based on nalyzed:	Spike Amount 100 the spike a 2010-06-	Matrix Result <2.18 nd spike do	Rec.	Rec. Limit 85 - 115 sult. Ar	3 alyzed 1	Limit 20 By: kg
Param Chloride Percent recovery is based Matrix Spike (MS-1) QC Batch: 71314	LCSD Result 101 I on the spike result Spiked Sample:	Units mg/Kg RPD is 236006 Date A QC Pre	Dil. g 1 based on nalyzed:	Spike Amount 100 the spike a 2010-06-	Matrix Result <2.18 nd spike dr 29 29	Rec. 101 ıplicate re	Rec. Limit 85 - 115 sult. Ar Pr	3 alyzed 1 epared 1	Limit 20 By: kg 3y: kg
Param Chloride Percent recovery is based <b>Matrix Spike (MS-1)</b> QC Batch: 71314 Prep Batch: 61097	LCSD Result 101 I on the spike result	Units mg/Kg . RPD is 236006 Date A QC Pre	Dil. g 1 based on nalyzed:	Spike Amount 100 the spike a 2010-06-	Matrix Result <2.18 nd spike do	Rec.	Rec. Limit 85 - 115 sult. Ar Pr	3 alyzed 1 epared 1	Limit 20 By: kg
Param Chloride Percent recovery is based <b>Matrix Spike (MS-1)</b> QC Batch: 71314 Prep Batch: 61097 Param	LCSD <u>Result</u> 101 I on the spike result Spiked Sample:	Units mg/Kg . RPD is 236006 Date A QC Pre S sult I	Dil. g 1 based on nalyzed: eparation	Spike Amount 100 the spike a 2010-06- : 2010-06-	Matrix Result <2.18 nd spike du 29 29 Spike	Rec. 101 ıplicate re Matrix	Rec. Limit 85 - 115 sult. Ar Pr	3 alyzed l epared I	Limit 20 By: kg 3y: kg Rec.
Param Chloride Percent recovery is based <b>Matrix Spike (MS-1)</b> QC Batch: 71314 Prep Batch: 61097 Param DRO	LCSD Result 101 I on the spike result Spiked Sample: M Res 21	Units mg/Kg . RPD is 236006 Date A QC Pre S sult U .3 m	Dil. g 1 based on nalyzed: eparation Units ng/Kg	Spike Amount 100 the spike a 2010-06- 2010-06- Dil. 1	Matrix Result <2.18 nd spike du 29 29 29 29 29 29 29 29 29 29 29 29	Rec. 101 1plicate re Matrix Result <14.5	Rec. Limit 85 - 115 sult. Ar Pr Rec. 85	3 alyzed l epared I	Limit 20 By: kg By: kg Rec. Limit
Param Chloride Percent recovery is based <b>Matrix Spike (MS-1)</b> QC Batch: 71314 Prep Batch: 61097 Param DRO	LCSD Result 101 I on the spike result Spiked Sample: M Res 21 I on the spike result	Units mg/Kg . RPD is 236006 Date A QC Pre S sult U .3 m	Dil. g 1 based on nalyzed: eparation Units ng/Kg	Spike Amount 100 the spike a 2010-06- 2010-06- Dil. 1 the spike a	Matrix Result <2.18 nd spike du 29 29 29 29 29 29 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	Rec. 101 1plicate re Matrix Result <14.5	Rec. Limit 85 - 115 sult. Ar Pr Rec. 85 sult.	3 alyzed l epared I	Limit 20 By: kg 3y: kg Rec. Limit 2 - 167.1
Param Chloride Percent recovery is based <b>Matrix Spike (MS-1)</b> QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is based	LCSD Result 101 I on the spike result Spiked Sample: Spiked Sample: MRes 21 I on the spike result MSD	Units mg/Kg . RPD is 236006 Date A QC Pre S sult U . RPD is	Dil. g 1 based on nalyzed: eparation Units ng/Kg based on	Spike Amount 100 the spike a 2010-06- 2010-06- 2010-06- Dil. 1 the spike a Spike	Matrix Result <2.18 nd spike du 29 29 29 29 29 29 29 29 29 29 29 29 29	Rec. 101 iplicate re Matrix Result <14.5 iplicate re	Rec. Limit 85 - 115 sult. Ar Pr Rec. 85 sult. Rec.	3 alyzed 1 epared 1 35.	Limit 20 By: kg By: kg Rec. Limit 2 - 167.1 RPD
Param Chloride Percent recovery is based Matrix Spike (MS-1) QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is based Param	LCSD Result 101 I on the spike result Spiked Sample: Spiked Sample: MR 21 I on the spike result MSD Result	Units mg/Kg . RPD is 236006 Date A QC Pre S sult Units	Dil. <u>g 1</u> based on nalyzed: eparation <u>Units</u> ng/Kg based on Dil.	Spike Amount 100 the spike a 2010-06- 2010-06- Dil. 1 the spike a Spike Amount	Matrix Result <2.18 nd spike du 29 29 29 29 29 29 29 29 29 29 29 29 29	Rec. 101 101 101 101 101 101 101 10	Rec. Limit 85 - 115 sult. Ar Pr Rec. 85 sult. Rec. Limit	3 alyzed l epared I 35. RPD	Limit 20 By: kg By: kg Rec. Limit 2 - 167.1 RPD Limit
Param Chloride Percent recovery is based <b>Matrix Spike (MS-1)</b> QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is based Param DRO	LCSD Result 101 I on the spike result Spiked Sample: Spiked Sample: MRes 21 I on the spike result MSD Result 212	Units mg/Kg RPD is 236006 Date A QC Pre S sult U RPD is Units mg/Kg	Dil. g 1 based on nalyzed: eparation Units ng/Kg based on Dil. 1	Spike Amount 100 the spike a 2010-06- 2010-06- 2010-06- Dil. 1 the spike a Spike Amount 250	Matrix Result <2.18 nd spike du 29 29 29 29 29 29 29 29 29 29 29 29 29	Rec. 101 101 101 101 101 101 101 10	Rec. Limit 85 - 115 sult. Ar Pr Rec. 85 sult. Rec. Limit 5.2 - 167.1	3 alyzed 1 epared 1 35.	Limit 20 By: kg By: kg Rec. Limit 2 - 167.1 RPD
Param Chloride Percent recovery is based <b>Matrix Spike (MS-1)</b> QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is based Param DRO	LCSD Result 101 I on the spike result Spiked Sample: Spiked Sample: MRes 21 I on the spike result MSD Result 212	Units mg/Kg RPD is 236006 Date A QC Pre S sult U RPD is Units mg/Kg	Dil. g 1 based on nalyzed: eparation Units ng/Kg based on Dil. 1	Spike Amount 100 the spike a 2010-06- 2010-06- 2010-06- Dil. 1 the spike a Spike Amount 250	Matrix Result <2.18 nd spike du 29 29 29 29 29 29 29 29 29 29 29 29 29	Rec. 101 101 101 101 101 101 101 10	Rec. Limit 85 - 115 sult. Ar Pr Rec. 85 sult. Rec. Limit 5.2 - 167.1	3 alyzed l epared I 35. RPD	Limit 20 By: kg By: kg Rec. Limit 2 - 167.1 RPD Limit
Param Chloride Percent recovery is based <b>Matrix Spike (MS-1)</b> QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is based Param DRO	LCSD Result 101 I on the spike result Spiked Sample: Spiked Sample: MR 21 I on the spike result MSD Result 212 I on the spike result	Units mg/Kg RPD is 236006 Date A QC Pre S sult U RPD is Units mg/Kg RPD is	Dil. g 1 based on nalyzed: eparation Units ng/Kg based on Dil. 1	Spike Amount 100 the spike a 2010-06- 2010-06- 2010-06- Dil. 1 the spike a Spike Amount 250	Matrix Result <2.18 nd spike du 29 29 29 29 29 29 29 29 29 29 29 29 29	Rec. 101 1plicate re Matrix Result <14.5 1plicate re Rec. 85 3: 1plicate re	Rec. Limit 85 - 115 sult. Ar Pr Rec. 85 sult. Rec. Limit 5.2 - 167.1 sult.	3 alyzed l epared l 35. RPD 0	Limit 20 By: kg By: kg Rec. Limit 2 - 167.1 RPD Limit 20
Param Chloride Percent recovery is based Matrix Spike (MS-1) QC Batch: 71314 Prep Batch: 61097 Param DRO Percent recovery is based	LCSD Result 101 I on the spike result Spiked Sample: Spiked Sample: MRes 21 I on the spike result MSD Result 212	Units mg/Kg . RPD is 236006 Date A QC Pre S sult Units mg/Kg . RPD is	Dil. g 1 based on nalyzed: eparation Units ng/Kg based on Dil. 1	Spike Amount 100 the spike a 2010-06- 2010-06- 2010-06- Dil. 1 the spike a Spike Amount 250	Matrix Result <2.18 nd spike du 29 29 29 29 29 29 29 29 29 29 29 29 29	Rec. 101 101 101 101 101 101 101 10	Rec. Limit 85 - 115 sult. Ar Pr Rec. 85 sult. Rec. Limit 5.2 - 167.1 sult. MS	3 alyzed l epared l 35. RPD 0	Limit 20 By: kg By: kg Rec. Limit 2 - 167.1 RPD Limit

### Matrix Spike (MS-1) Spiked Sample: 235740

QC Batch:	71320	Date Analyzed:	2010-06-29	Analyzed By:	AG
Prep Batch:	61074	QC Preparation:	2010-06-29	Prepared By:	AG

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	$\operatorname{Result}$	Rec.	Limit
Benzene	1.89	mg/Kg	1	2.00	< 0.0150	94	80.5 - 112
Toluene	1.92	mg/Kg	1	2.00	< 0.00950	96	82.4 - 113
Ethylbenzene	1.96	mg/Kg	1	2.00	< 0.0106	98	83.9 - 114
Xylene	5.89	mg/Kg	1	6.00	< 0.00930	98	84 - 114

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

	MSD			Spike	Matrix		Rec.		RPD
Param	$\operatorname{Result}$	Units	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$	RPD	Limit
Benzene	2.12	mg/Kg	1	2.00	< 0.0150	106	80.5 - 112	12	20
Toluene	2.16	mg/Kg	1	2.00	< 0.00950	108	82.4 - 113	12	20
Ethylbenzene	2.17	mg/Kg	1	2.00	< 0.0106	108	83.9 - 114	10	20
Xylene	6.53	mg/Kg	1	6.00	< 0.00930	109	84 - 114	10	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	$\operatorname{Result}$	Result	Units	Dil.	Amount	Rec.	Rec.	$\mathbf{Limit}$
Trifluorotoluene (TFT)	1.99	1.47	mg/Kg	1	2	100	74	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.89	1.39	mg/Kg	1	2	94	70	35.5 - 129

#### Matrix Spike (MS-1) Spiked Sample: 235992

QC Batch:	71321	Date Analyzed:	2010-06-29	Analyzed By:	AG
Prep Batch:	61074	QC Preparation:	2010-06-29	Prepared By:	AG

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	14.4	mg/Kg	1	20.0	<1.65	72	61.8 - 114

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

	MSD			Spike	Matrix		Rec.		RPD
Param	$\operatorname{Result}$	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	14.6	mg/Kg	1	20.0	<1.65	73	61.8 - 114	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.35	2.60	mg/Kg	1	2	118	130	50 - 162
4-Bromofluorobenzene (4-BFB)	2.12	2.32	mg/Kg	1	2	106	116	50 - 162

Work Order: 10062809 COG/Big George Line Leaf

#### Matrix Spike (MS-1) Spiked Sample: 236032

QC Batch: Prep Batch:	Date Analyzed: QC Preparation:			Analyzed By: AG Prepared By: AG
	MS	Spike	Matrix	Bec.

	IVI.J			opike	INICIOLIA		1000.
Param	Result	Units	Dil.	Amount	$\operatorname{Result}$	Rec.	Limit
Benzene	1.98	mg/Kg	1	2.00	< 0.0150	99	80.5 - 112
Toluene	2.01	mg/Kg	1	2.00	< 0.00950	100	82.4 - 113
Ethylbenzene	1.99	mg/Kg	1	2.00	< 0.0106	100	83.9 - 114
Xylene	6.00	mg/Kg	1	6.00	< 0.00930	100	84 - 114

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

	MSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{Result}$	Units	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$	$\mathbf{RPD}$	Limit
Benzene	2.15	mg/Kg	1	2.00	< 0.0150	108	80.5 - 112	8	20
Toluene	2.18	mg/Kg	1	2.00	< 0.00950	109	82.4 - 113	8	20
Ethylbenzene	2.18	mg/Kg	1	2.00	< 0.0106	109	83.9 - 114	9	20
Xylene	6.59	mg/Kg	1	6.00	< 0.00930	110	84 - 114	9	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.81	1.88	mg/Kg	1	2	90	94	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.76	1.78	mg/Kg	1	2	88	89	35.5 - 129

#### Matrix Spike (MS-1) Spiked Sample: 236006

QC Batch:	71323	Date Analyzed:	2010-06-30	Analyzed By:	AG
Prep Batch:	61074	QC Preparation:	2010-06-29	Prepared By:	AG

	MS			Spike	Matrix		Rec.
Param	$\operatorname{Result}$	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit
GRO	14.4	mg/Kg	1	20.0	<1.65	72	61.8 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	$\operatorname{RPD}$ Limit
GRO	14.5	mg/Kg	1	20.0	<1.65	72	61.8 - 114	1	20
Percent recovery is based on the s	pike result.	RPD is b	ased on	the spike a	nd spike d	uplicate	result.		

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	$\operatorname{Result}$	$\operatorname{Result}$	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.18	1.78	mg/Kg	1	2	109	89	50 - 162
4-Bromofluorobenzene (4-BFB)	1.97	1.65	mg/Kg	11	2	98	82	50 - 162

Report Date: July 2, 2010 114-6400557				: 10062809 rge Line Le	af		Pag	e Number Eddy Co	
Matrix Spike (MS-1) Spi	ked Sample: 23	5977							
QC Batch: 71396		Date A	nalyzed:	2010-07-03	1		A	Analyzed E	y: AR
Prep Batch: 61118			eparation:	2010-06-3				Prepared B	
	MS	5			Spike	Ma	ıtrix		Rec.
Param	Rest		Units	Dil.	Amount		sult	Rec.	Limit
Chloride	1090	00	mg/Kg	100	10000	9	14	100	85 - 115
Percent recovery is based on th	ie spike result.	RPD is	based on t	the spike an	d spike du	plicate r	esult.		
	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	11000	mg/Kg		10000	914	101	85 - 11		20
Percent recovery is based on th				·······					
ercent recovery is based on th	ie spike result.	101 10 13	Dased on t	sne spike an	a spike au	piicate i	Courte.		
Matrix Spike (MS-1) Spi	iked Sample: 23	5097							
viatrix spike (wis-1) spi	ikeu bampie. 25	0901							
QC Batch: 71397		Date A	nalyzed:	2010-07-03	1		A	Analyzed E	y: AR
Prep Batch: 61119		QC Pre	eparation:	2010-06-30	)		F	repared B	y: AR
	MS	3			Spike	Ma	ıtrix		Rec.
Param	Resu		Units	Dil.	Amount	Re	sult	Rec.	Limit
Chloride	1090	00	mg/Kg	100	10000	12	290	96	85 - 113
Percent recovery is based on th	ne spike result.	RPD is	based on t	he spike an	d spike du	plicate r	esult.		
	MSD			Caller	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Spike Amount	Result	Rec.	Limit	RPD	Limi
Chloride	11100	mg/K		10000	1290	<u>98</u>	85 - 11		$\frac{1}{20}$
Percent recovery is based on th			<i></i>				***	<u> </u>	
rencent recovery is based on th	ie spike result.	IGI D 15	Dased off	me spike an	u spike uuj	pilcate i	esuit.		
Matrix Spike (MS-1) Spi	iked Sample: 23	5997							
QC Batch: 71423		Doto A	nalyzed:	2010-07-02	)		٨	Analyzed E	y: AR
Prep Batch: 61120			eparation:	2010-07-02				Prepared B	-
			.pta 601011.	2010 00 00	,		1	repared b	
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	MS		Unita	Dil.	Spike		sult	Rog	Rec. Limit
Param	Daar	116	Units	$\frac{Dn}{100}$	Amount 10000		218	Rec. 97	85 - 11
	Resu 981	0	mg/Kg			~ 4	e 10	91	00 - 110
Chloride	981		mg/Kg based on t			licato r	esult		
Param Chloride Percent recovery is based on th	981 ne spike result.			he spike an	d spike du	plicate r			
Chloride Percent recovery is based on th	981 ne spike result. MSD	RPD is	based on t	he spike an Spike	d spike duj Matrix		Rec.		
Chloride	981 ne spike result.		based on t Dil.	he spike an	d spike du	plicate r Rec. 101		RPD 5 4	RPD Limit 20

Report Date: July 2, 2010 114-6400557			Vork Order G/Big Geor				Pa	ge Number Eddy Co	
Matrix Spike (MS-1) Sp	oiked Sample: 2	36007							
QC Batch: 71424 Prep Batch: 61121			Analyzed: eparation:	2010-07-0 2010-06-3				Analyzed E Prepared B	
	Μ				Spike		trix		Rec.
Param	Res	_	Units	Dil.	Amount		sult	Rec.	Limit
Chloride		000	mg/Kg	100	10000		940	101	85 - 115
Percent recovery is based on the	he spike result.	RPD is	based on t	the spike ar	id spike dup	olicate r	esult.		
	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units		Amount	Result	Rec.	Limit		Limit
Chloride Percent recovery is based on th	16200	mg/K		10000	5940	103	85 - 11	.5 1	20
QC Batch: 71425 Prep Batch: 61122			Analyzed: eparation:	2010-07-0 2010-06-3				Analyzed E Prepared B	•
	Μ				Spike		trix	_	Rec.
Param	Res		Units	Dil. 100	Amount 10000		sult 11	Rec.	Limit
Chloride			mg/Kg					104	85 - 115
Percent recovery is based on the	ne spike result.	RPD is	based on t	ine spike af	ia spike aut	oncate r	esun.		
·							n		* * *
	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units		Amount	Result	Rec.	Limit		Limit
Param Chloride	Result 11000	mg/K	g 100	Amount 10000	Result 511	105	Limit 85 - 11		
Param Chloride Percent recovery is based on th	Result 11000	mg/K	g 100	Amount 10000	Result 511	105	Limit 85 - 11	5 1	Limit 20
Param Chloride Percent recovery is based on th Standard (CCV-1)	Result 11000	mg/K . RPD is	g 100	Amount 10000 the spike ar	Result 511 nd spike dur	105	Limit 85 - 11		Limit 20
Param Chloride Percent recovery is based on th Standard (CCV-1)	Result 11000 he spike result.	mg/K RPD is Date A CCVs	g 100 s based on t Analyzed: CC	Amount 10000 the spike ar 2010-06-29 Vs	Result 511 nd spike dup CCVs	105 Dicate r	Limit 85 - 11 esult. Percent	5 1	Limit 20 By: kg
Param Chloride Percent recovery is based on th Standard (CCV-1) QC Batch: 71314	Result 11000 he spike result.	mg/K RPD is Date A CCVs True	g 100 s based on t Analyzed: CC <sup>*</sup> Fou	Amount 10000 the spike ar 2010-06-29 Vs nd	Result 511 nd spike dup CCVs Percent	105 Dicate r	Limit 85 - 11 esult. Percent Recovery	5 1 Analyzed	Limit 20 By: kg Date
Param Chloride Percent recovery is based on th <b>Standard (CCV-1)</b> QC Batch: 71314 Param Flag	Result 11000 he spike result. Units	mg/K RPD is Date A CCVs True Conc.	g 100 s based on t Analyzed: CC Fou Con	Amount 10000 the spike ar 2010-06-29 Vs nd nc.	Result 511 nd spike dup CCVs Percent Recovery	105 Dlicate r I	Limit 85 - 11 esult. Percent Recovery Limits	5 1 Analyzed	Limit 20 By: kg Date nalyzed
Param Chloride Percent recovery is based on th Standard (CCV-1) QC Batch: 71314 Param Flag	Result 11000 he spike result.	mg/K RPD is Date A CCVs True	g 100 s based on t Analyzed: CC <sup>*</sup> Fou	Amount 10000 the spike ar 2010-06-29 Vs nd nc.	Result 511 nd spike dup CCVs Percent	105 Dlicate r I	Limit 85 - 11 esult. Percent Recovery	5 1 Analyzed	Limit 20 By: kg Date

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Report Date 114-6400557	e: July 2, 2010			Order: 100628 ig George Line		~	umber: 33 of 3 dy County, NM
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO	1 1005	mg/Kg	250	213	<u>85</u>	80 - 120	2010-06-29
Standard (	CCV-3)						
QC Batch:	,		Date Anal	yzed: 2010-06	i-29	Ana	lyzed By: kg
			COV-	001-		Democrat	
			CCVs	CCVs From d	CCVs	Percent	Data
Donom	Flor	Units	True	Found	Percent	Recovery	Date
Param DRO	Flag	mg/Kg	Conc. 250	Conc. 203	Recovery 81	Limits 80 - 120	Analyzed 2010-06-29
Standard (	CCV-2)						
QC Batch:	71320		Date Analy	zed: 2010-06-	-29	Anal	yzed By: AG
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.100	100	80 - 120	2010-06-2
Toluene		mg/Kg	0.100	0.0979	98	80 - 120	2010-06-2
Ethylbenzene	e	mg/Kg	0.100	0.0913	91	80 - 120	2010-06-2
Xylene		mg/Kg	0.300	0.275	92	80 - 120	2010-06-2
Standard (	CCV-3)						
QC Batch:	71320		Date Analy	zed: 2010-06-	-29	Anal	yzed By: AG
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0951	95	80 - 120	2010-06-2
Toluene		mg/Kg	0.100	0.0939	94	80 - 120	2010-06-2
Ethylbenzene	e	mg/Kg	0.100	0.0884	88	80 - 120	2010-06-2
Xylene		mg/Kg	0.300	0.265	88	80 - 120	2010-06-2
Standard (	CCV-2)						
	71321		Date Analy	zed: 2010-06-		Anal	

114-640055	e: July 2, 2010 7			Order: 100628 ig George Line			umber: 34 of 3 ldy County, N
D		Tī.:4-	CCVs True	CCVs Found Conc.	CCVs Percent	Percent Recovery Limits	Date
Param GRO	Flag	Units mg/Kg	Conc. 1.00	1.03	Recovery 103	80 - 120	Analyzec 2010-06-2
GIIO		mg/ng	1.00	1.00	100	00 - 120	2010-00-2
Standard (	(CCV-3)						
QC Batch:	71321		Date Anal	yzed: 2010-06	-29	Anal	yzed By: AC
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.884	88	80 - 120	2010-06-2
QC Batch:	71322		Date Analy CCVs	zed: 2010-06- CCVs	-30 CCVs	Anal Percent	yzed By: AC
QC Batch:	71322						yzed By: AC
QC Batch:	71322		CCVs	CCVs	CCVs	Percent	
-		Units			CCVs Percent		Date
Param	71322 Flag		CCVs True	CCVs Found	CCVs	Percent Recovery	Date Analyzee
QC Batch: Param Benzene Toluene		Units mg/Kg mg/Kg	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyze 2010-06-3
Param Benzene Toluene	Flag	mg/Kg	CCVs True Conc. 0.100	CCVs Found Conc. 0.0928	CCVs Percent Recovery 93	Percent Recovery Limits 80 - 120	Date Analyze 2010-06-3 2010-06-3
Param Benzene	Flag	mg/Kg mg/Kg	CCVs True Conc. 0.100 0.100	CCVs Found Conc. 0.0928 0.0924	CCVs Percent Recovery 93 92	Percent Recovery Limits 80 - 120 80 - 120	Date Analyzed 2010-06-3 2010-06-3 2010-06-3
Param Benzene Toluene Ethylbenzer Xylene	Flag	mg/Kg mg/Kg mg/Kg	CCVs True Conc. 0.100 0.100 0.100	CCVs Found Conc. 0.0928 0.0924 0.0874	CCVs Percent Recovery 93 92 87	Percent Recovery Limits 80 - 120 80 - 120 80 - 120	yzed By: AC Date Analyzed 2010-06-3 2010-06-3 2010-06-3
Param Benzene Toluene Ethylbenzer	Flag ne (CCV-2)	mg/Kg mg/Kg mg/Kg	CCVs True Conc. 0.100 0.100 0.100	CCVs Found Conc. 0.0928 0.0924 0.0874 0.263	CCVs Percent Recovery 93 92 87 88	Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120	Date Analyzed 2010-06-3 2010-06-3 2010-06-3
Param Benzene Toluene Ethylbenzer Xylene <b>Standard</b>	Flag ne (CCV-2)	mg/Kg mg/Kg mg/Kg	CCVs True Conc. 0.100 0.100 0.100 0.300 Date Analy CCVs	CCVs Found Conc. 0.0928 0.0924 0.0874 0.263 vzed: 2010-06- CCVs	CCVs Percent <u>Recovery</u> 93 92 87 88 -30 CCVs	Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120 Anal Percent	Date Analyzed 2010-06-3 2010-06-3 2010-06-3 2010-06-3 yzed By: AC
Param Benzene Toluene Ethylbenzer Xylene <b>Standard</b> QC Batch:	Flag ne (CCV-2) 71322	mg/Kg mg/Kg mg/Kg mg/Kg	CCVs True Conc. 0.100 0.100 0.100 0.300 Date Analy CCVs True	CCVs Found Conc. 0.0928 0.0924 0.0874 0.263 vzed: 2010-06- CCVs Found	CCVs Percent <u>Recovery</u> 93 92 87 88 -30 -30 CCVs Percent	Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120 Anal Percent Recovery	Date Analyzed 2010-06-3 2010-06-3 2010-06-3 2010-06-3 yzed By: AC
Param Benzene Toluene Ethylbenzer Xylene Standard QC Batch: Param	Flag ne (CCV-2)	mg/Kg mg/Kg mg/Kg Mg/Kg	CCVs True Conc. 0.100 0.100 0.100 0.300 Date Analy CCVs True Conc.	CCVs Found Conc. 0.0928 0.0924 0.0874 0.263 vzed: 2010-06- CCVs Found Conc.	CCVs Percent <u>Recovery</u> 93 92 87 88 -30 -30 CCVs Percent Recovery	Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120 80 - 120 Anal Percent Recovery Limits	Date Analyzed 2010-06-3 2010-06-3 2010-06-3 2010-06-3 yzed By: AC Date Analyzed
Param Benzene Toluene Ethylbenzer Xylene Standard QC Batch: Param Benzene	Flag ne (CCV-2) 71322	mg/Kg mg/Kg mg/Kg Mg/Kg	CCVs True Conc. 0.100 0.100 0.300 Date Analy CCVs True Conc. 0.100	CCVs Found Conc. 0.0928 0.0924 0.0874 0.263 //zed: 2010-06- CCVs Found Conc. 0.0955	CCVs Percent Recovery 93 92 87 88 -30 -30 CCVs Percent Recovery 96	Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120 Anal Percent Recovery Limits 80 - 120	Date Analyzed 2010-06-3 2010-06-3 2010-06-3 2010-06-3 2010-06-3 yzed By: AC
Param Benzene Toluene Ethylbenzer Xylene Standard QC Batch: Param Benzene Toluene	Flag ne (CCV-2) 71322 Flag	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	CCVs True Conc. 0.100 0.100 0.300 Date Analy CCVs True Conc. 0.100 0.100	CCVs Found Conc. 0.0928 0.0924 0.0874 0.263 //zed: 2010-06- CCVs Found Conc. 0.0955 0.0942	CCVs Percent Recovery 93 92 87 88 -30 -30 -30 CCVs Percent Recovery 96 94	Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120 Anal Percent Recovery Limits 80 - 120 80 - 120 80 - 120	Date Analyze 2010-06-3 2010-06-3 2010-06-3 2010-06-3 2010-06-3 2010-06-3 2010-06-3 2010-06-3
Param Benzene Toluene Ethylbenzer Xylene <b>Standard</b>	Flag ne (CCV-2) 71322 Flag	mg/Kg mg/Kg mg/Kg Mg/Kg	CCVs True Conc. 0.100 0.100 0.300 Date Analy CCVs True Conc. 0.100	CCVs Found Conc. 0.0928 0.0924 0.0874 0.263 //zed: 2010-06- CCVs Found Conc. 0.0955	CCVs Percent Recovery 93 92 87 88 -30 -30 CCVs Percent Recovery 96	Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120 Anal Percent Recovery Limits 80 - 120	Date Analyzed 2010-06-3 2010-06-3 2010-06-3 2010-06-3 yzed By: AC Date Analyzed

QC Batch: 71323

Date Analyzed: 2010-06-30

Analyzed By: AG

Report Dat 114-640055	e: July 2, 201 7	10		k Order: 10062 Big George Lin			umber: 35 of 37 ldy County, NM
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO	8	mg/Kg	1.00	0.878	88	80 - 120	2010-06-30
Standard (	(CCV-2)						
QC Batch:	. ,		Date Ana	lyzed: 2010-0	6-30	Anal	lyzed By: AG
			CCVs	CCVs	CCVs	Percent	
Param	Flag	Units	True Conc.	Found Conc.	Percent Recovery	Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.851	85	80 - 120	2010-06-30
Standard ( QC Batch:	(ICV-1) 71396		Date Ana	lyzed: 2010-0'	7-01	Ana	lyzed By: AR
•				•			
			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2010-07-01
Standard	(CCV-1)						
QC Batch:	71396		Date Ana	lyzed: 2010-0	7-01	Ana	lyzed By: AR
			CCVs	CCVs	$\mathrm{CCVs}$	Percent	
			True	Found	Percent	Recovery	Date
Param Chloride	Flag	Units	<u> </u>	<u>Conc.</u> 99.9	Recovery 100	Limits 85 - 115	Analyzed 2010-07-01
		mg/Kg	100	99.9	100	85 - 115	_ 2010-07-01
Standard	. ,						
QC Batch:	71397		Date Ana	lyzed: 2010-0'	7-01	Ana	lyzed By: AR
			ICVs True	ICVs Found	$\operatorname{ICVs}$ Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2010-07-01
Standard	(CCV-1)						
QC Batch:	71397		Date Ana	lyzed: 2010-07	7-01	Anal	yzed By: AR

Report Date: July 2 114-6400557	, 2010		k Order: 10062 Big George Lin			umber: 36 of 37 dy County, NM
Param Flag	g Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride	mg/Kg	100	100	100	85 - 115	2010-07-01
Standard (ICV-1)						
QC Batch: 71423		Date Ana	lyzed: 2010-0'	7-02	Anal	yzed By: AR
		ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param Flag Chloride	g Units mg/Kg	<u>Conc.</u> 100	Conc. 101	Recovery 101	Limits 85 - 115	Analyzed 2010-07-02
Standard (CCV-1) QC Batch: 71423		Date Anal	lyzed: 2010-07	7-02	Anal	yzed By: AR
		CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
	t Units	Conc.	Conc.	Recovery	Limits	Analyzed
Param Flag Chloride					85 - 115	2010-07-02
Param Flag Chloride Standard (ICV-1)	mg/Kg	100	99.5	100	85 - 115	2010-07-02
Chloride			99.5	100		2010-07-02 yzed By: AR
Chloride Standard (ICV-1) QC Batch: 71424	mg/Kg	100 Date Ana ICVs True	99.5 lyzed: 2010-07 ICVs Found	100 7-02 ICVs Percent	Anal Percent Recovery	yzed By: AR Date
Chloride Standard (ICV-1)	mg/Kg	100 Date Ana ICVs	99.5 lyzed: 2010-07 ICVs	100 7-02 ICVs	Anal Percent	yzed By: AR
Chloride Standard (ICV-1) QC Batch: 71424 Param Flag	mg/Kg g Units mg/Kg	100 Date Ana ICVs True Conc.	99.5 lyzed: 2010-0' ICVs Found Conc. 99.4	100 7-02 ICVs Percent Recovery 99	Anal Percent Recovery Limits 85 - 115	yzed By: AR Date Analyzed
Chloride Standard (ICV-1) QC Batch: 71424 Param Flag Chloride Standard (CCV-1)	mg/Kg g Units mg/Kg	100 Date Anal ICVs True Conc. 100	99.5 lyzed: 2010-0' ICVs Found Conc. 99.4	100 7-02 ICVs Percent Recovery 99	Anal Percent Recovery Limits 85 - 115	yzed By: AR Date Analyzed 2010-07-02
Chloride Standard (ICV-1) QC Batch: 71424 Param Flag Chloride Standard (CCV-1)	mg/Kg g Units mg/Kg	100 Date Anal ICVs True Conc. 100 Date Anal CCVs	99.5 lyzed: 2010-07 ICVs Found Conc. 99.4 lyzed: 2010-07 CCVs	100 7-02 ICVs Percent Recovery 99 7-02 CCVs	Anal Percent Recovery Limits 85 - 115 Anal Percent	yzed By: AR Date Analyzed 2010-07-02 yzed By: AR

Report Da 114-640055	te: July 2, 2010 57	)		k Order: 10062 Big George Lin		<b>v</b>	umber: 37 of 37 idy County, NM
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-07-02
Standard QC Batch:	. ,		Date Ana	lyzed: 2010-07	7-02	Ana	yzed By: AR
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.1	98	85 - 115	2010-07-02

Ân	alv	sis						<u></u> of		_			λu	sto	dv	F	<u>}e</u>	CÓ	)r(	1									PA	GE:	1			OF:	\$	•	
	<u> </u>								<u> </u>						~y	•										6					QUE Aeth		In i				
				and the second sec			19 M	<b>E T</b> 910 N lidlar 32) 682	l. Big d, Te	I Spi exas	ring \$ 797(	St. 05	3946									- 1	5 (Ext. to C35)	5	Cd Vr Pd Hg Se									TDS			
CLIENT NAM	ЛE:							SITE N								ßS		PRE	SER		VE		Ř	Ba	Ba			)/624	0/625					Hd			
COG PROJECT N	<u>.</u>			DDC		T,NAN	45.	<u></u>	Le	10.00	3027					-NR		- <u>-</u>	T	T	-		ด	8	8	1	8	826	827				ŀ	l Si			
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LAB I.D. NUMBER	DATE	וד ו		Ţ	COMP. GRAR		3		SAMP	Edd PLE ID	dy ( DENTIF	ICATI	JM ON			NUMBER OF	FILTERED (Y/N)	HNO3	ICE	NONE		ALLEX 8021B	APH 8015 MOD. TX1005	RCRA Metal	TCLP Metals Ag As Ba	TCLP Volati	RCI	GC.MS Vol. (	GC.MS Sem	PCB's 8080/608	Chloride	Gamma Spec.	Alpha Beta (Air) PI M (Asheetos)	Major Anions/Cations, pH, TDS			
235970	"/ <sub>2</sub> .	2	ľ	5	×	A	4-1	(	9-1'				R' i	3EB		l			X			X	X							T	Y						
971						Ai	4-1		1-1.5	5`				BEB								ľ									X						$\downarrow$
972				$\parallel$		A	<del>1</del> -1		2-2.	<u>5`</u>			(' 1	BEB																	Y						
973		_		1		AH	+-1		3-3	<u>55'</u>			, <b>1</b> '	BER		Ш			$\prod$												X	Ц					⊥
974				$\parallel$		A	<del>{-</del> (		4-4	1.5'			<u>r</u> .	BEB																_	Y					1	╞
975			-	#		AH	-1		5.5	5'			ſ,	BEB		Щ			$\prod$			_					_			4	4		_			+	╇
976						AH	-1		6-6	<u>e.5'</u>			Ċ	BEB								_				$\downarrow$				_	Ŋ	┝─┨	_	+		+	╉
9777						AH	-1		7-1	7.5'			<u>'</u>	BEB					₩	ļ		_				$\downarrow$				_	Y			+-		+	╇
978					$\parallel$	AH	-1		8-8	3.5'			<u>'</u>	BEB		$\ $					┝╌┨	_				+	+-			-	2 V		_	+-			╀
976 RELINGUISHED	BY; (Sigp	ature)	N	<u>り</u>	V	Att	-1	6-7	9-9		CEIVER	BY: (Bjgr	nattore)	BEB		M		Date	V		210		s	AMPL	ED B	Y: (Pri	int & I	nitial)			1		Date		-1	<u> </u>	
RELINQUISHED			<u>F_</u>			Time Date	the second s	Ila	<del>a</del>		CEIVED	L	L					Time: Date:		10	2,5	0		AMPL	ESH	PPE	BY:	Circl		-			Time				
RELINQUISHED		······································				Time Date	<u> </u>				CEIVED							Time: Date:				_		HAN	DEL	IVER	TACT	BU	s s				THEF		by:		_
RECEIVING LAB			e	<b>7</b> ×		Time	ZIP:				EIVED BY	: (Signat	ture)					Time:						•			īra						Ā	USH ( uthori	Charge zed:		
SAMPLE CONDI			-	-	PHOP	<u> </u>	Z,	APIKS:	Lee		~8	ign.	n pi	ks .	it	TIN	<sup>ne:</sup>	H	6	Ne	Le.	Å		.a	x	Ø	nq	11	ke	,				Yes		No	<u>,</u>

An	naly	sis	Re	90	qu	lest	of	Cha	ain of	Custod	y F	Re	C	Dr	d				. <u></u> ,				LYSI		EQU	EST		OF:		
	ME:						1910 Midla (432) 6   SITE	N. Big nd, Te 32-4559 MANAGE		•	BS	1 1		SER	VATIN	/E	8015 MOD. TX1005 (Ext. to C35)	1 14	Ba Cd Vr Pd Hg Se		Circi		8210/625		Met			cH TDS		
COG	10.:	<u></u>	ТР	RO	JEC	T NAME:		<u>Le Ta</u>	varez		- NA	╎┝	- <u>-</u>				A		8 8		tiles	0/826	I. 827					tions		
114-646	2054	7		20		Big	-	<u>proe</u>	Line L	eat	Ś	Ĩ.					ຟ <sub>ຊິ</sub>		als Ac	88	Volat	8240	2	<b>%09</b>	8	l 8	(Air)	stos)		
LAB I.D. NUMBER	DATE 2010		MATRIX	COMP	GRAB -	0		SAMPI	dy Co K LEIDENTIFIC	JM ATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL HN03	ICE	NONE	DIEV CONT	NOR HAL	PAH 8270	TCLP Metals Ag	TCLP Volat	TCLP Semi Volatiles	GC.MS Vol. 8240/8260/624	GC.MS Semi, Vol. 8	PCB's 808(	Pest. 808/6 Chlořde	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos) Maior Anione/Cations nH TDS		
135980	6/23		5	<b>,</b>	X	AH-:	2	0-1	·	I' BEB	(			X	ľ	5	qх								Ŋ	C				
981	1				$\left \right $	AH -:		(-1,5	5,	I' BEB	1	Π		1			ſ								K	P				
982				T		AH-2		5-7		I'BEB			Τ	Π								Τ			T	X				Τ
983	Π			Τ	Π	A4-2		3-3		I' BEB			T	Π			1	Π				T	Π		1	f		Τ	Π	Τ
984			Π	T	Π	AH-2		4-4		I'BEB		Π				T	Τ						Π		T	A				Τ
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986			T	T	Π	AH-3		0-1		2' BEB					Π							T	Π			Ø	Π		Π	Τ
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			ANALYSIS REQU (Circle or Specify Met	
æ	<b>TETRA TECH</b> 1910 N. Big Spring St. Midland, Texas 79705 (432) 682-4559 • Fax (432) 682-3946		005 (Ext to C36) Cd Cr Pb Hg Se Cd W Pd Hg Se Cd W Pd Hg Se 25	pH, TOS
CLIENT NAME:	SITE MANAGER:	PRESERVATIVE	TX1005 Ba Cd Ba Cd 0/624 70/625	Ha
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RECEIVING LABORATORY	RECEIVED BY: (Signature)		- The Tavarez	RUSH Charges Authorized:
CITY: Midland STATE: TX CONTACT:PHONE:	DATE:	TIME:		Authorized: Yes No
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PAGE OF: 4           PAGE		<u> </u>	$\bigcirc$	$\tilde{\mathbf{n}}$	et	μ	オ	<b>‡</b> `	lor	<i>26</i> 2	<del>7</del> 8	109				$\sim$																				(				
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# **Summary Report**

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

Report Date: March 29, 2011

Work Order: 11032819

Project Location: Eddy Co, NM Project Name: COG/Big George 8in. Project Number: 114-6400557

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
261879	CS-1 6' bottom hole	soil	2011-03-22	00:00	2011-03-28
261880	CS-1 8'	soil	2011-03-22	00:00	2011-03-28
261881	CS-1 10'	soil	2011-03-22	00:00	2011-03-28
261882	CS-2 6' bottom hole	soil	2011-03-23	00:00	2011-03-28
261883	CS-2 8'	soil	2011-03-23	00:00	2011-03-28
261884	CS-2 10'	soil	2011-03-23	00:00	2011-03-28
261885	CS-2 12'	soil	2011-03-23	00:00	2011-03-28
261886	CS-2 14'	soil	2011-03-23	00:00	2011-03-28
261887	CS-3 6'	soil	2011-03-23	00:00	2011-03-28
261888	CS-3 8'	soil	2011-03-23	00:00	2011-03-28
261889	CS-3 10'	soil	2011-03-23	00:00	2011-03-28
261890	CS-3 12'	soil	2011-03-23	00:00	2011-03-28

#### Sample: 261879 - CS-1 6' bottom hole

Param	$\mathbf{Flag}$	$\operatorname{Result}$	Units	$\operatorname{RL}$
Chloride		310	mg/Kg	4.00

#### Sample: 261880 - CS-1 8'

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

### Sample: 261881 - CS-1 10'

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296 This is only a summary. Please, refer to the complete report package for quality control data.

Report Date: March 29, 2011		Work Order: 11032819	Page Number: 2 of 3	
Param	Flag	Result	Units	$\operatorname{RL}$
Chloride		<200	ıng/Kg	4.00
Sample: 261882 -	CS-2 6' bottom hole	e		
Param	Flag	Result	Units	$\mathbf{RL}$
Chloride		657	mg/Kg	4.00
Sample: 261883 -	CS-2 8'			
Param	Flag	Result	Units	$\operatorname{RL}$
Chloride		2350	mg/Kg	4.00
Sample: 261884 -	CS-2 10'			
Param	Flag	Result	Units	RL
Chloride		291	mg/Kg	4.00
Sample: 261885 -	CS-2 12'			
Param	Flag	$\mathbf{Result}$	Units	$\operatorname{RL}$
Chloride	······································	315	ıng/Kg	4.00
Sample: 261886 -	CS-2 14'			
Param	Flag	$\operatorname{Result}$	Units	$\mathbf{RL}$
Chloride		965	mg/Kg	4.00
Sample: 261887 -	CS-3 6'			
Param	Flag	Result	Units	RL
Chloride		7760	mg/Kg	4.00
Sample: 261888 -	CS-3 8'			
Param	Flag	Result	Units	$\operatorname{RL}$
Chloride	· · · · · · · · · · · · · · · · · · ·	2350	mg/Kg	4.00

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Report Date: March 29, 2011		Work Order: 11032819	Page 1	Number: 3 of 3
Sample: 261889	- CS-3 10'			
Param	Flag	$\operatorname{Result}$	Units	RL
Chloride		2950	mg/Kg	4.00
Sample: 261890	- CS-3 12'			

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



### **NELAP** Certifications

T104704219-08-TX Lubbock: LELAP-02003 Kansas E-10317

El Paso: T104704221-08-TX LELAP-02002

Midland: T104704392-08-TX

### Analytical and Quality Control Report

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

Report Date: March 29, 2011

Work Order: 11032819

Project Location: Eddy Co, NM Project Name: COG/Big George 8in. 114-6400557 **Project Number:** 

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

	v i i	о х	Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
261879	CS-1 6' bottom hole	soil	2011-03-22	00:00	2011-03-28
261880	CS-1 8'	soil	2011-03-22	00:00	2011-03-28
261881	CS-1 10'	soil	2011-03-22	00:00	2011-03-28
261882	CS-2 6' bottom hole	soil	2011-03-23	00:00	2011-03-28
261883	CS-2 8'	soil	2011-03-23	00:00	2011-03-28
261884	CS-2 10'	soil	2011-03-23	00:00	2011-03-28
261885	CS-2 12'	soil	2011-03-23	00:00	2011-03-28
261886	CS-2 14'	soil	2011-03-23	00:00	2011-03-28
261887	CS-3 6'	soil	2011-03-23	00:00	2011-03-28
261888	CS-3 8'	soil	2011-03-23	00:00	2011-03-28

			Date	$\operatorname{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
261889	CS-3 10'	soil	2011-03-23	00:00	2011-03-28
261890	CS-3 12'	soil	2011-03-23	00:00	2011-03-28

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

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blain Lepturch F

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

#### Standard Flags

 ${\bf B}\,$  - The sample contains less than ten times the concentration found in the method blank.

## Case Narrative

Samples for project COG/Big George 8in. were received by TraceAnalysis, Inc. on 2011-03-28 and assigned to work order 11032819. Samples for work order 11032819 were received intact at a temperature of 3.6 C.

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

		Prep	Prep	$\mathbf{QC}$	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (Titration)	SM 4500-Cl B	67743	2011-03-28 at 10:16	79845	2011-03-29 at 10:17
Chloride (Titration)	SM 4500-Cl B	67743	2011-03-28 at 10:16	79846	2011-03-29 at 10:18

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 11032819 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: March 29, 2011	Work Order: 11032819	Page Number: 4 of 9
114-6400557	COG/Big George 8in.	Eddy Co, NM
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# Analytical Report

### Sample: 261879 - CS-1 6' bottom hole

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	79845	Date Analyzed:	2011-03-29	Analyzed By:	AR.
Prep Batch:	67743	Sample Preparation:	2011-03-28	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride	0	310	mg/Kg	50	4.00
	1881 - 135-187				
Laboratory: Analysis: QC Batch: Prep Batch:	1880 - CS-1 8' Midland Chloride (Titration) 79845 67743	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2011-03-29 2011-03-28	Prep Method: Analyzed By: Prepared By:	N/A AR AR
Laboratory: Analysis: QC Batch:	Midland Chloride (Titration) 79845	Date Analyzed: Sample Preparation:	2011-03-29	Analyzed By:	AR
Laboratory: Analysis: QC Batch:	Midland Chloride (Titration) 79845	Date Analyzed:	2011-03-29	Analyzed By:	

Analysis:	Chloride (Titration)	Analytical Meth	od: SM 4500-Cl B	Prep Metl	hod: N/A
QC Batch:	79845	Date Analyzed:		Analyzed	,
Prep Batch:	67743	Sample Prepara	tion: 2011-03-28	Prepared	By: AR
		$\operatorname{RL}$			
Parameter	Flag	Result	Units	Dilution	$\operatorname{RL}$
Chloride		<200	mg/Kg	50	4.00

#### Sample: 261882 - CS-2 6' bottom hole

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	79845	Date Analyzed:	2011-03-29	Analyzed By: AR
Prep Batch:	67743	Sample Preparation:	2011-03-28	Prepared By: AR

continued ...

Report Date 114-6400557	e: March 29, 2011	Work Order: 11032819 COG/Big George 8in.		Page Number: Eddy C	
sample 2618	82 continued				
		RL			
Parameter	Flag	Result	Units	Dilution	RL
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		657 1	ng/Kg	50	4.00
Sample: 26	i1883 - CS-2 8'				
Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	79845	Date Analyzed:	2011-03-29	Analyzed By:	AR
Prep Batch:		Sample Preparation:	2011-03-25	Prepared By:	AR
P	••••	r r			
		$\mathbf{RL}$			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		2350 1	ng/Kg	100	4.00
Sample: 26 Laboratory: Analysis: QC Batch: Prep Batch:	51884 - CS-2 10' Midland Chloride (Titration) 79845 67743	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2011-03-29 2011-03-28	Prep Method: Analyzed By: Prepared By:	N/A AR AR
		B.L.			
Parameter	Flag	RL Result	Units	Dilution	$\mathbf{RL}$
Parameter	Flag		Units	Dilution	RL
Chloride Sample: 26 Laboratory: Analysis:	Flag 51885 - CS-2 12' Midland Chloride (Titration)	Result 291 1 Analytical Method:	ng/Kg SM 4500-Cl B	50 Prep Method:	4.00 N/A
Chloride Sample: 26 Laboratory: Analysis: QC Batch:	1885 - CS-2 12' Midland Chloride (Titration) 79846	Result 291 1 Analytical Method: Date Analyzed:	ng/Kg SM 4500-Cl B 2011-03-29	50 Prep Method: Analyzed By:	4.00 N/A AR
Chloride Sample: 26 Laboratory: Analysis: QC Batch:	i1885 - CS-2 12' Midland Chloride (Titration)	Result 291 1 Analytical Method: Date Analyzed: Sample Preparation:	ng/Kg SM 4500-Cl B	50 Prep Method:	4.00 N/A
Chloride Sample: 26 Laboratory: Analysis: QC Batch: Prep Batch:	51885 - CS-2 12' Midland Chloride (Titration) 79846 67743	Result 291 1 Analytical Method: Date Analyzed: Sample Preparation: RL	ng/Kg SM 4500-Cl B 2011-03-29 2011-03-28	50 Prep Method: Analyzed By: Prepared By:	4.00 N/A AR AR
Chloride Sample: 26 Laboratory:	1885 - CS-2 12' Midland Chloride (Titration) 79846	Result 291 1 Analytical Method: Date Analyzed: Sample Preparation: RL Result	ng/Kg SM 4500-Cl B 2011-03-29	50 Prep Method: Analyzed By:	4.00 N/A AR

Report Date 114-6400557	21 March 29, 2011		Work Order: 11032819 COG/Big George 8in.		Page Number: 6 of 9 Eddy Co, NM	
Sample: 26	1886 - CS-2 14'					
Laboratory: Analysis:	Midland Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A	
QC Batch:	79846	Date Analyzed:	2011-03-29	Analyzed By:	ÁR.	
Prep Batch:	67743	Sample Preparation:	2011-03-28	Prepared By:	AR.	
		RL				
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$	
Chloride			mg/Kg	100	4.00	
Sample: 26 Laboratory: Analysis: QC Batch: Prep Batch:	51887 - CS-3 6' Midland Chloride (Titration) 79846 67743	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2011-03-29 2011-03-28	Prep Method: Analyzed By: Prepared By:	N/A AR AR	
1 top 2000m	01110					
Parameter	Flag	RL Result	Units	Dilution	RL	
Chloride	r lag		nig/Kg	100	4.00	
Sample: 26 Laboratory:	3 <b>1888 - CS-3 8'</b> Midland					
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A	
QC Batch:	79846	Date Analyzed:	2011-03-29	Analyzed By:	AR.	
Prep Batch:	67743	Sample Preparation:	2011-03-28	Prepared By:	AR	
	01140			roporod 250		
		RL				
	Flag	RL Result	Units	Dilution	RL	
		RL Result				
Parameter Chloride Sample: 26		RL Result	Units	Dilution	RL	
Chloride Sample: 26	Flag 51889 - CS-3 10' Midland	RL Result 2350 I	Units	Dilution 100	RL	
Chloride Sample: 26 Laboratory: Analysis:	Flag 51889 - CS-3 10' Midland Chloride (Titration)	RL Result 2350 I Analytical Method:	Units mg/Kg SM 4500-Cl B	Dilution 100 Prep Method:	RL 4.00 N/A	
Chloride Sample: 26 Laboratory: Analysis: QC Batch:	Flag 51889 - CS-3 10' Midland Chloride (Titration) 79846	RL Result 2350 1 Analytical Method: Date Analyzed:	Units mg/Kg SM 4500-Cl B 2011-03-29	Dilution 100 Prep Method: Analyzed By:	RL 4.00 N/A AR.	
Chloride Sample: 26 Laboratory: Analysis: QC Batch:	Flag 51889 - CS-3 10' Midland Chloride (Titration)	RL Result 2350 I Analytical Method:	Units mg/Kg SM 4500-Cl B 2011-03-29	Dilution 100 Prep Method:	RL 4.00 N/A	
Chloride Sample: 26 Laboratory: Analysis: QC Batch:	Flag 51889 - CS-3 10' Midland Chloride (Titration) 79846	RL Result 2350 1 Analytical Method: Date Analyzed:	Units mg/Kg SM 4500-Cl B 2011-03-29	Dilution 100 Prep Method: Analyzed By:	RL 4.00 N/A AR.	
Chloride	Flag 51889 - CS-3 10' Midland Chloride (Titration) 79846	RL Result 2350 n Analytical Method: Date Analyzed: Sample Preparation: RL Result	Units mg/Kg SM 4500-Cl B 2011-03-29	Dilution 100 Prep Method: Analyzed By:	RL 4.00 N/A AR.	

Report Date 114-6400557	: March 29, 201	1		Work Ore COG/Bi		Page Number: 7 of Eddy Co, N					
Sample: 26	1890 - CS-3 1	2'									
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titra 79846 67743	ation)	D	nalytical Me ate Analyzec ample Prepar	1:	SM 4500-Cl B 2011-03-29 2011-03-28		Prep Method Analyzed By Prepared By	: AR		
Parameter	Fl	ag	Res			Units	Dilut		RL		
Chloride			<2	200	1	mg/Kg		50	4.00		
Method Bla	ank (1) Q(	C Batch: 798	45								
QC Batch: Prep Batch:	79845 67743			Analyzed: Preparation:	2011- 2011-			Analyzed By Prepared By			
				M	DL						
Parameter Chloride		Flag		Res <3			Units mg/Kg		RL 4		
Method Bla QC Batch: Prep Batch:	ank (1) Q( 79846 67743	C Batch: 798	Date	Analyzed: Preparation:	2011- 2011-			Analyzed B Prepared By			
				M	DL						
Parameter Chloride		Flag		Res <3		· · · · · · · · · · · · · · · · · · ·	Units mg/Kg	······	RL 4		
Laboratory	Control Spike	e (LCS-1)									
QC Batch: Prep Batch:	79845 67743			Analyzed: Preparation:	2011- 2011-			Analyzed B Prepared B			
Param			LCS Result	Units	Dil.		Matrix Result	Rec.	Rec. Limit		
Chloride Demonst recov	our is beend	4ho an:1	97.2	mg/Kg	1	100 ke and spike du	<3.85		85 - 115		
I EIGENE IECOV	continued	one spike res	un, AFD	15 Daseu OII	me spii	ve and spike du	meate result	· · · · · · · · · · · · · · · · · · ·			

Report Date: March 29, 2011 114-6400557		W (	Page Number: 8 Eddy Co,						
control spikes continued									
	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limi
Chloride	103	mg/Kg	1	100	<3.85	103	85 - 115	6	20
Percent recovery is based on the	spike result.		ased on t	he spike an	d spike du	olicate r	esult.		
Laboratory Control Spike (L	2 <b>CS-</b> 1)								
QC Batch: 79846		Date Ana	•	2011-03-29				alyzed E	
Prep Batch: 67743		QC Preparation: 2011-03-28			Pre	pared B	y: AR		
	LC	zs			Spike	Ma	trix		Rec.
Param	Res		Jnits	Dil.	Amount	Re	sult R	ec.	$\operatorname{Limit}$
Chloride	98	.2 m	g/Kg	1	100	<3	.85 9	98	85 - 11
Percent recovery is based on the	spike result.	RPD is ba	ased on t	he spike an	d spike duj	olicate r	esult.		
	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limi
Chloride	103	mg/Kg	1	100	<3.85	103	85 - 115	5	20
Percent recovery is based on the	ed Sample: 2			are spike an	u spike duj				
, -			lvzed:	2011-03-20	)		An	alvzed F	v· AR
QC Batch: 79845	a somptor s	Date Ana QC Prepa		2011-03-29 2011-03-28				alyzed E epared B	-
QC Batch: 79845		Date Ana							-
QC Batch: 79845 Prep Batch: 67743	М	Date Ana QC Prepa S	aration:	2011-03-28	3 Spike	Ma	Pre	epared B	y: AR. Rec.
QC Batch: 79845 Prep Batch: 67743 Param	M Res	Date Ana QC Prepa S ult U	Jnits	2011-03-28 Dil.	Spike Amount	Res	Pre trix sult R	epared B ec.	y: AR. Rec. Limit
OC Batch: 79845 Prep Batch: 67743 Param Chloride	M Res 105	Date Ana QC Prepa S ult U 00 m	Inits g/Kg	2011-03-28 Dil. 100	Spike Amount 10000	Res <3	Pre trix sult R 185 1	epared B	y: AR Rec. Limit
QC Batch: 79845 Prep Batch: 67743 Param Chloride	M Res 105	Date Ana QC Prepa S ult U 00 m	Inits g/Kg	2011-03-28 Dil. 100	Spike Amount 10000	Res <3	Pre trix sult R 185 1	epared B ec.	y: AR Rec. Limit
QC Batch: 79845	M Res 105	Date Ana QC Prepa S ult U 00 m	Inits g/Kg	2011-03-28 Dil. 100	Spike Amount 10000	Res <3	Pre trix sult R 185 1	epared B ec.	y: AR Rec.
QC Batch: 79845 Prep Batch: 67743 Param Chloride	M Res 105 spike result.	Date Ana QC Prepa S ult U 00 m	Inits g/Kg	2011-03-28 Dil. 100 the spike an	Spike Amount 10000 d spike dup	Res <3	Pre trix sult R 85 1 esult.	epared B ec.	y: AR Rec. Limit 80 - 120

Matrix Spike (MS-1) Spiked Sample: 261890

QC Batch:	79846	Date Analyzed:	2011-03-29	Analyzed By:	$\mathbf{AR}$
Prep Batch:	67743	QC Preparation:	2011-03-28	Prepared By:	$\mathbf{AR}$

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Param			sult	Units	Dil.	Spike Amount	Re	trix sult	Rec.	Rec. Limit				
Chloride		10	100 r	ng/Kg	100	10000	<3	385	101	80 - 120				
Percent reco	overy is based o	on the spike result.	. RPD is t	based on the	he spike a	nd spike duj	olicate r	esult.						
		MSD			Spike	Matrix		Rec.		RPD				
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit				
Chloride		10400	mg/Kg	100	10000	<385	104	80 - 12	0 3	20				
Percent reco	overy is based o	on the spike result.	. RPD is t	pased on the	he spike a	nd spike duj	olicate r	esult.						
Standard (	(ICV-1)													
QC Batch:	79845		Date An	alyzed: 2	2011-03-29			A	Analyzed H	By: AR				
			ICVs	ICV	Vs	ICVs		Percent						
			True	Fou		Percent	]	Recovery		Date				
Param	Flag	Units	Conc.	Cor		Recovery		Limits		Analyzed				
Chloride		mg/Kg	100	98.	.9	99		85 - 115	20	)11-03-29				
Standard (	(CCV-1)													
QC Batch:	79845		Date An	alyzed: 2	2011-03-29			A	Analyzed H	By: AR				
QC Batch:	79845		Date An CCVs	alyzed: 2 CC	• •	CCVs		A Percent	Analyzed E	By: AR				
QC Batch:				v	Vs				-	Date				
Param	79845 Flag	Units	CCVs True Conc.	CC Fou Cor	Vs nd nc.	CCVs Percent Recovery	J	Percent Recovery Limits	Ĩ	Date Analyzed				
		Units mg/Kg	CCVs True	" CC' Fou	Vs nd nc.	CCVs Percent	J	Percent Recovery	Ĩ	Date				
Param	Flag		CCVs True Conc.	CC Fou Cor	Vs nd nc.	CCVs Percent Recovery	J	Percent Recovery Limits	Ĩ	Date Analyzed				
Param Chloride Standard	Flag (ICV-1)		CCVs True Conc.	CC Fou Cor 10	Vs nd nc.	CCVs Percent Recovery 101	J	Percent Recovery Limits 85 - 115	Ĩ	Date Analyzed )11-03-29				
Param Chloride Standard	Flag (ICV-1)		CCVs True Conc. 100 Date An	CC Fou Cor 10 alyzed: 2	Vs nd nc. 1 2011-03-29	CCVs Percent Recovery 101	]	Percent Recovery Limits 85 - 115	20	Date Analyzed )11-03-29				
Param Chloride Standard	Flag (ICV-1)		CCVs True Conc. 100	CC Fou Cor 10	Vs nd nc. 1 2011-03-29 Vs	CCVs Percent Recovery 101	]	Percent Recovery Limits 85 - 115	20	Date Analyzed )11-03-29				
Param Chloride Standard QC Batch:	Flag (ICV-1)		CCVs True Conc. 100 Date An ICVs	CC Fou Cor 10 alyzed: 2 ICV	Vs nd nc. 1 2011-03-29 Vs nd	CCVs Percent Recovery 101	]	Percent Recovery Limits 85 - 115 A Percent	Analyzed F	Date Analyzed )11-03-29 By: AR				
Param Chloride Standard QC Batch:	Flag (ICV-1) 79846	mg/Kg	CCVs True Conc. 100 Date An ICVs True	CC Fou Cor 10 alyzed: 2 ICV Fou	Vs nd nc. 1 2011-03-29 Vs nd nc.	CCVs Percent Recovery 101 ICVs Percent	]	Percent Recovery Limits 85 - 115 A Percent Recovery	Analyzed F	Date Analyzed )11-03-29 By: AR Date				
Param Chloride Standard QC Batch: Param	Flag (ICV-1) 79846 Flag	mg/Kg Units	CCVs True Conc. 100 Date An ICVs True Conc.	CC Fou Cor 10 alyzed: 2 ICV Fou Con	Vs nd nc. 1 2011-03-29 Vs nd nc.	CCVs Percent Recovery 101 ICVs Percent Recovery	]	Percent Recovery Limits 85 - 115 A Percent Recovery Limits	Analyzed F	Date Analyzed 111-03-29 By: AR By: AR Date Analyzed				
Param Chloride Standard QC Batch: Param Chloride	Flag (ICV-1) 79846 Flag	mg/Kg Units	CCVs True Conc. 100 Date An ICVs True Conc.	CC Fou Cor 10 aalyzed: 2 ICV Fou Con 10	Vs nd nc. 1 2011-03-29 Vs nd nc.	CCVs Percent Recovery 101 ICVs Percent Recovery	]	Percent Recovery Limits 85 - 115 A Percent Recovery Limits 85 - 115	Analyzed F	Date Analyzed )11-03-29 By: AR Date Analyzed )11-03-29				
Param Chloride Standard QC Batch: Param Chloride Standard	Flag (ICV-1) 79846 Flag (CCV-1)	mg/Kg Units	CCVs True Conc. 100 Date An ICVs True Conc. 100 Date An	CC Fou Cor 10 alyzed: 2 ICV Fou Con 10 alyzed: 2	Vs nd nc. 1 2011-03-29 Vs nd nc. 1 2011-03-29	CCVs Percent Recovery 101 ICVs Percent Recovery 101	]	Percent Recovery Limits 85 - 115 A Percent Recovery Limits 85 - 115	Analyzed F 20 Analyzed F 20	Date Analyzed )11-03-29 By: AR Date Analyzed )11-03-29				
Param Chloride Standard QC Batch: Param Chloride Standard	Flag (ICV-1) 79846 Flag (CCV-1)	mg/Kg Units	CCVs True Conc. 100 Date An ICVs True Conc. 100	CC Fou Cor 10 aalyzed: 2 ICV Fou Con 10	Vs nd nc. 1 2011-03-29 Vs nd nc. 1 2011-03-29 Vs	CCVs Percent Recovery 101 ICVs Percent Recovery	]	Percent Recovery Limits 85 - 115 A Percent Recovery Limits 85 - 115	Analyzed F 20 Analyzed F 20	Date Analyzed )11-03-29 By: AR Date Analyzed )11-03-29				
Param Chloride Standard QC Batch: Param Chloride Standard	Flag (ICV-1) 79846 Flag (CCV-1)	mg/Kg Units	CCVs True Conc. 100 Date An ICVs True Conc. 100 Date An CCVs	CC Fou Cor 10 alyzed: 2 ICV Fou Con 10 alyzed: 2 CC	Vs nd nc. 1 2011-03-29 Vs nd nc. 1 2011-03-29 Vs nd	CCVs Percent Recovery 101 ICVs Percent Recovery 101 CCVs	]	Percent Recovery Limits 85 - 115 A Percent Recovery Limits 85 - 115 A Percent	Analyzed F Analyzed F	Date Analyzed D11-03-29 By: AR Date Analyzed D11-03-29 By: AR				

- & Walk Order #: 110	32819 -												•	
Analysis Request of Chain of	Custody F	Reco	ord		PAGE: / Or. 2							2		
					ANALYSIS REQUEST (Circle or Specify Method No.)									
<b>TETRATECH</b> 1910 N. Big Spring St. Midland, Texas 79705 (432) 682-4559 • Fax (432) 683	-				(Ext. to (	A Pd Hg Se						TDS		
CLIENT NAME: SITE MANAGER:	S.		SERVATIVE		1X1005			/824	8270/625			H		
PROJECT NO.: PROJECT NAME:	CONTAINERS	╵┝╌╹		11	.) ]:	9 <b>2</b>	8	/8260				tions		
114-64005,57 COG/ Big brogge 8"	CON	N)			2 MOD.	P B B	Volati	8240	16 Vol	8	80. (Alr)			
LAB I.D. NUMBER DATE TIME TIME AND CONSTRUCT SAMPLE IDENTIFICA		FILTERED (Y/N) HCL HNO3	ice None	(8021	PAH 801	TCLP Metals Ag	FCLP Volatiles TCLP Semi Volatiles DC1	GC.MS Vol. 8240/8260/62	GC.MS Semi. Vol. PCB's 8080/608	Pest. 808/6 Chioride	Gamma Spec. Ainha Reta (Airi	PLM (Asbestos) Maior Antons/Cations		
	Hom hole 1		X	$\square$						X		Π		
880 1 1 45-1 8'														
881 L CS-1 10'														
	+ Hore hole													
883 1 (5-2 8'												$\square$		
884 65-2 10'						$\square$		$\prod$				$\square$		
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SAMPLE CONDITION WHEN RECEIVED: 3, 6°C ACTING REMARKS:	1 ×0	<u>ill</u>	du	to		ni	ala	m	55			1 10		

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

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Analysis Request of Chain of Custody Record				
Analysis Request of Chain of Custody Record	PAGE:	2	0г. 2	
	NALYSIS REQUE			
TETRATECH         Image: Second system			Se	
CLIENT NAME: CLIENT NAME: CL	V624 0/625		Hd	
PROJECT NO.: HULL UNLUD COL B. LOW B" NETHOD OF BUILDING OF BUIL	0/826		ations	
PROJECT NO: <u>HIFT 114-640</u> (AB 10 (AB 10 AB 10	1. 824 aml. V 608	pec. a (Air)	ona/C	
CLIENT NAME: COCS PROJECT NO.: HIF INAL STORME: STE MANAGEH: PROJECT NO.: HIF INAL STORME: HIF	GC.MS vol. 8240/8260/624 GC.MS Semi. vol. 8270/625 PCB's 8080/608 Pest. 808/608 Chiorid@	Gamma Spec. Alpha Beta (Alf) Pl M (Asbastos)	Major Anions/Cations, p.H. TDS	
261859 3/23 5 X CS-3 10' 11 X	X			
890 3/23 5 X es-3 12'	X			
				T
RECEIVED BY: (Signature)       Date:	pitial)	Date Time		
RELINCOSHED BY: (Signature) Date: SAMPLE SHIPPED BY: (Signature) Date: SAMPLE SHIPPED BY: (C	(Circte) BUS	AJRBIL	L#:	
RELINQUISHED BY: (Signature)       Date:       HAND DELIVERED         Time:       Time:       TETRA TECH CONTACT	UPS PERSON:	OTHER R	esults by:	
RECEIVING LABORATORY: TOKET RECEIVED BY: (Signature) TKC ADDRESS:	Vare Z	Ri	USH Charges uthorized:	
CONTACT:		<u> </u>	Yes A	No

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