SITE INFORMATION

Report Type: Closure Report

		Report	Type: Clos	ure Repo		transmission and the second			
General Site Info	ormation:								
Site:			#2 Flow line						
Company:	<u></u>	COG Operat			·				
Section, Townsl	hip and Range	Unit H	Sec 16	T17S R	30E				
Lease Number:		API-30-015-3							
County:		Eddy County							
GPS:	<u></u>	<u> </u>	32.83502° N		103.96942° W				
Surface Owner:		State	e						
Mineral Owner:		n Loco Hills, from the intersection of Goat Roper Rd and 82, travel north on Goat Roper for 1.2							
Directions:		miles, turn righ	miles, turn right (east) and travel for 0.3 miles, turn right (south) and travel for 500', turn left (east) and travel for 500' to site on the south side of the lease road.						
Release Data:	W Stear Barge	NE CONTRACTOR	ALMER AND A	1917 2.04 A	EN EL MELANS				
Date Released:		3/21/2012							
Type Release:	······································	Oil and Produ	iced Water		NOV 01 2012				
Source of Contan	nination:	Steel flowline	failure						
Fluid Released:		14 bbls water			NMOCD ARTESIA				
Fluids Recovered	1:	13 bbls water	6 bbls oil	and the second second					
Official Commun	nication:	a contractor de		的这些在形式。	and the second second second second				
Name:	Pat Ellis			lk	e Tavarez				
Company:	COG Operating, LL	С		Te	etra Tech				
Address:	550 W. Texas Ave.				910 N. Big Spring				
P.O. Box		<u> </u>							
City:	Midland Texas, 797	01		M	idland, Texas				
Phone number:	(432) 686-3023			1	32) 682-4559				
Fax:					02/002-4009				
Email:	(432) 684-7137 pellis@conchoreso				a tavaraz@tatrataab.aam				
	penis@conchoreso	urces.com	ike.tavarez@tetratech.com						
Ranking Criteria									
Depth to Groundw	vater:		Ranking Score	· · · · · · · · · · · · · · · · · · ·	Site Data				
<50 ft	·		20						
50-99 ft	· · ·		10						
>100 ft.			0		0				
WellHead Protecti			Panking Sooro		Site Data				
	00 ft., Private <200 ft		Ranking Score 20		She Dala				
	000 ft., Private <200 ft		0	·····	0				
Surface Body of W	Vater:	· · ·	Ranking Score		Site Data				
<200 ft.	······································	<u>_</u>	20						
200 ft - 1,000 ft. >1,000 ft.		· · ·	10 0	0					
- 1,000 II.	·	i	U		V				
Tot	al Ranking Score:		0						
			hie Soil BPAL						
		Benzene	ceptable Soil RRAL (mg/kg)						
		10	50	5,000					
				0,000					
and the second			a an	TRANSFER MARKED AND ADDRESS AT AT 18 MARK	and particular in management strand and an and a damage at the second of a second strand and a second strand a				



September 24, 2012



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

Re: Closure Report for the COG Operating LLC., Mesilla State #2, Unit H, Section 16, Township 17 South, Range 30 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Mesilla State #2 flow line located in Unit H, Section 16, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.83502°, W 103.96942°. 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 March 21, 2012, and released approximately twenty-two (22) barrels of produced fluid from the flow line. To alleviate the problem, COG personnel repaired the flow line. A total of nineteen (19) barrels of standing fluids were recovered. The spill initiated south of the lease road affecting an area approximately 20' X 100' in the pasture. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 16. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 325' below surface. The groundwater data is shown in Figure 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 5,000 mg/kg.

Soil Assessment and Analytical Results

On March 28, 2012, Tetra Tech personnel inspected and sampled the spill area. Two (2) auger holes (AH-1 and AH-2) were installed using a stainless steel hand auger to assess the impacted soils. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

at 0-1', but declined below the RRAL at 1-1.5' below surface. Auger hole (AH-2) was not defined and exceeded the RRAL for TPH, benzene and total BTEX down to a depth of 2.5-3.0' below surface.

Elevated chloride concentrations were also detected in both auger holes. Auger hole (AH-1) declined with depth and was defined at 4-4.5' below surface. However, AH-2 was not vertically defined and showed a chloride bottom hole sample of 7,030 mg/kg at 2.5-3.0' below surface. Deeper samples were not collected due to a dense formation.

On April 24, 2012, Tetra Tech supervised the installation of one (1) borehole (BH-1) using an air rotary drilling rig to assess the soils. The borehole was installed in the area of AH-2 to a total depth of 10' below surface. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The borehole results are summarized in Table 1.



Referring to Table 1, the chloride impact was vertically defined in the shallow soils and significantly declined to <20.0 mg/kg at 2-3' below surface. In addition, the hydrocarbon impact was vertically defined and showed TPH and BTEX concentrations below the RRAL.

Remediation and Conclusion

On August 7, 2012, Tetra Tech personnel supervised the excavation of the spill area. The spill foot print and final excavation depths of the soil remediation were met as stated in the approved work plan. In order to remove the elevated hydrocarbon and chloride concentrations, the proposed excavation depths ranged from 2.5' to 3.0' below surface. Approximately 140 cubic yards were removed and disposed of at R360 facility. The excavated area was then backfilled with clean material to grade.

Based on the remediation activities performed at this location, COG requests closure for this site. The C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities performed at the site, please call me at (432) 682-4559.

Respectfully submitted, TETRATECH

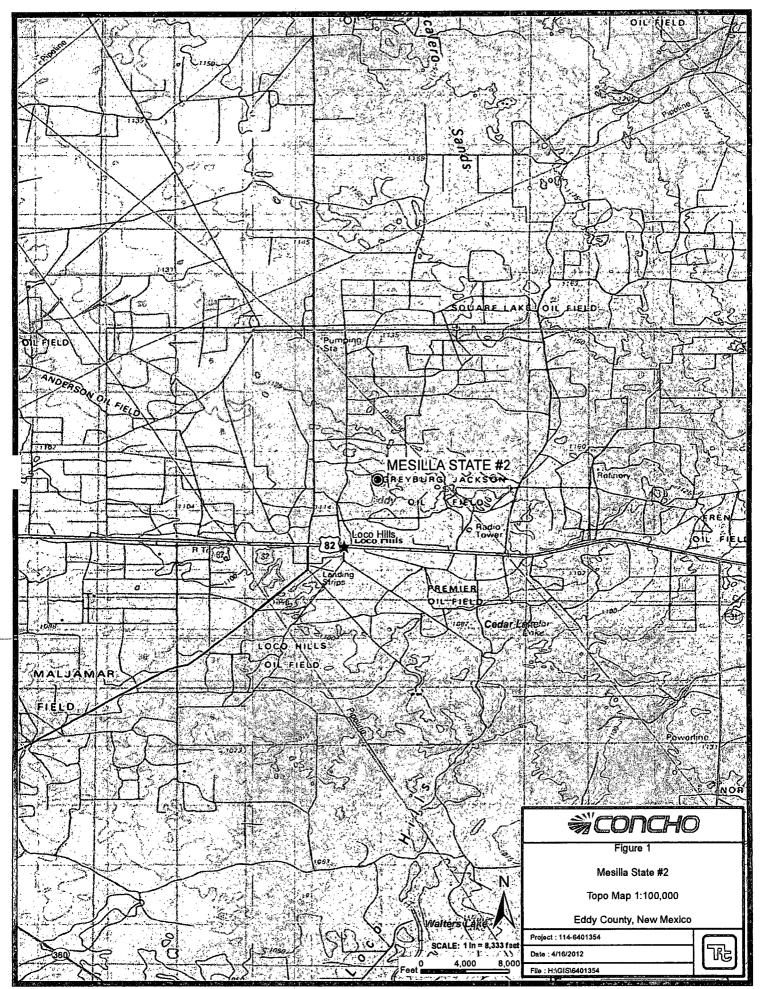
Ike Tavarez, PG Project Manager

cc: Pat Ellis - COG

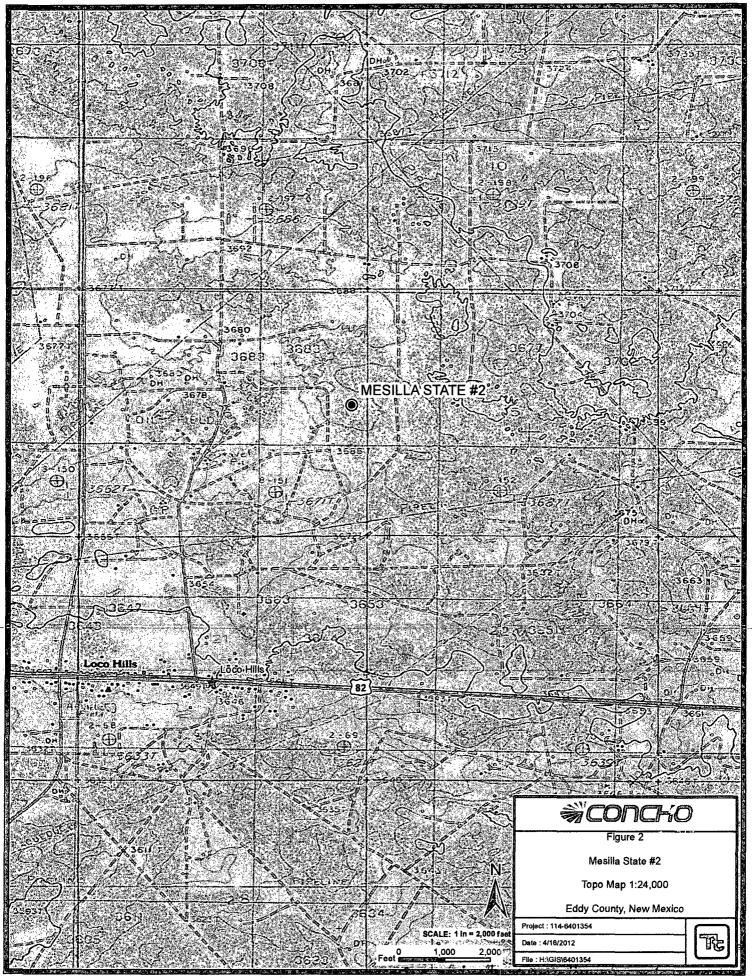
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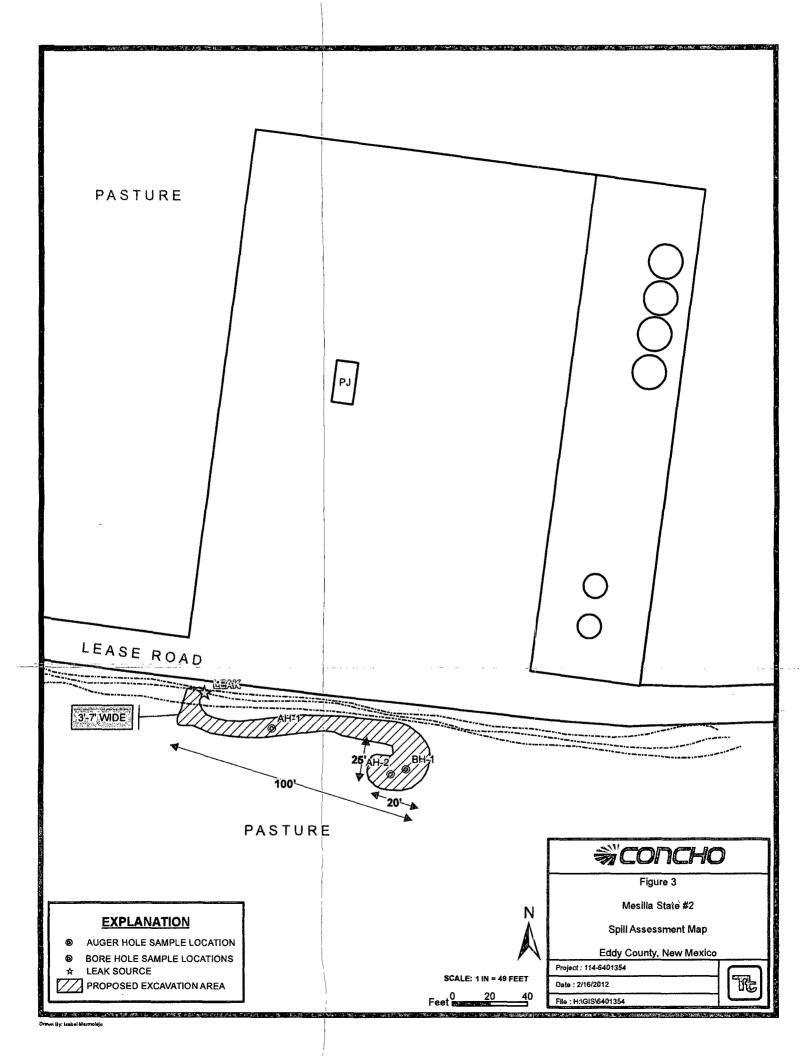
Figures

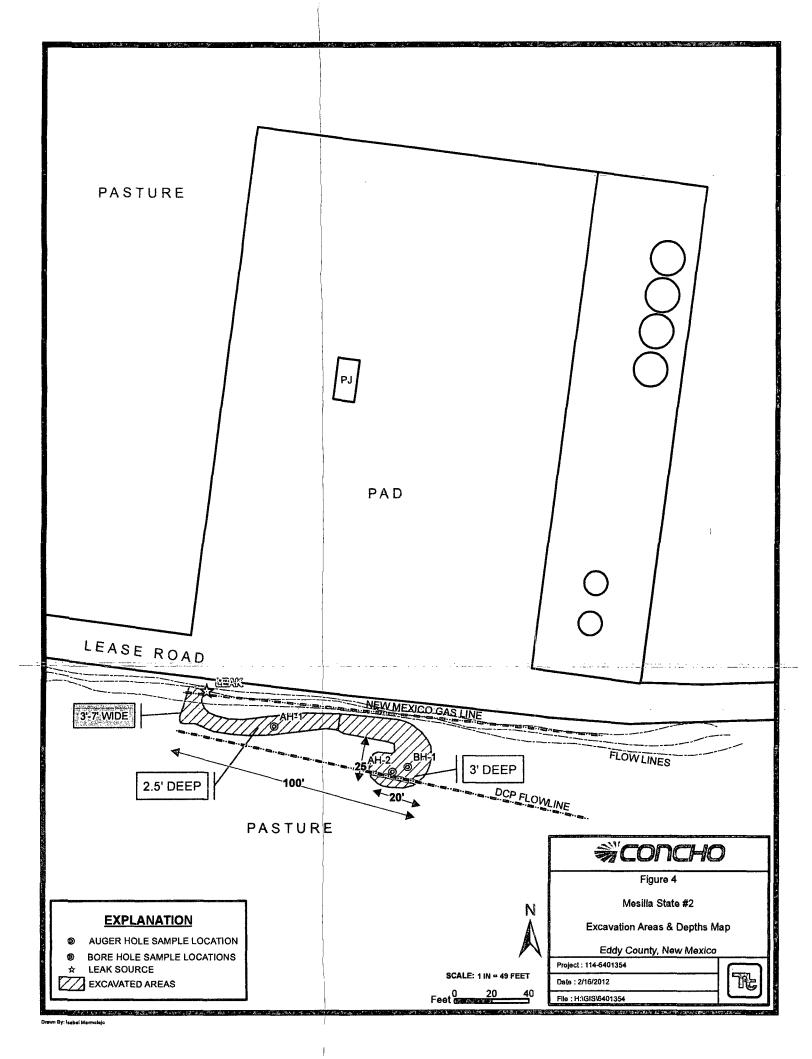


Drawn By: Isebel Mermolejo



Drewn By: taskel Marmolejo





Tables

Table 1COG Operating LLC.Mesilla State #2Eddy County, New Mexico

Sample	Sample	Sample	Soil	Status	1	PH (mg/k	g)	Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride
ID	Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-1	3/28/2012	0-1		X	821	4,190	5,011	1.64	13.6	8:40	14.0	37.6	. 241
	12	1-1.5		<u>.</u> Х	4.36	≷50.0	4.36	-					1,430
	u	2-2.5		X									1,480
			— X —	<u> </u>									1,910
	\$1	4-4.5	Х		-	-	-	-	-	-	-		<200
			and the state										0 E 40
AH-2	3/28/2012	0-1		X	9,470	16,100	25,570.	123	344	177	286	930	2,540
	11	1-1.5		X	9,780	14,400	24,180	129	334	182	286	931	1,970
	11	2-2.5		X	9,290	5,560	14,850	87.7	235	125	196	644	7,840
	u	2.5-3		X	14,200	8,450	22,650	198	443	216	377	1,234	7,030
BH-1	4/24/2012	0-1		X									3,730
	11	2-3		X								- 41 de 1	<20.0
	u	4-5	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0
		6-7	Х		-	-	-	-	-	-	-	-	169
	łi	9-10	Х			-	-		-	-	-	-	<20.0

(-) Not Analyzed

Excavated Depths

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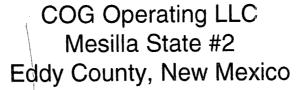
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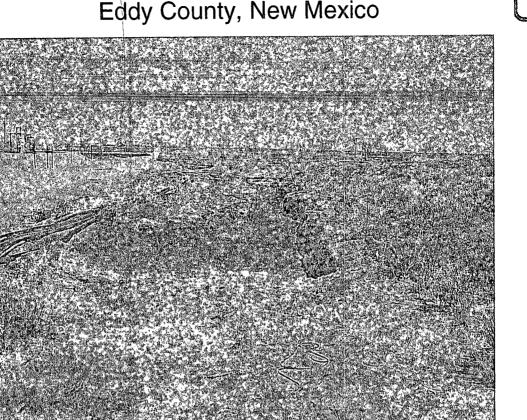
Photos

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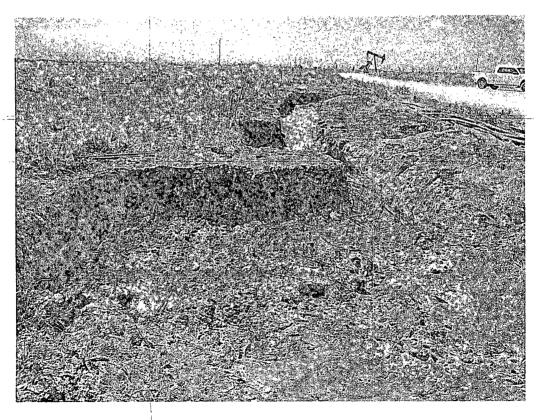
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View East - Area of AH-1

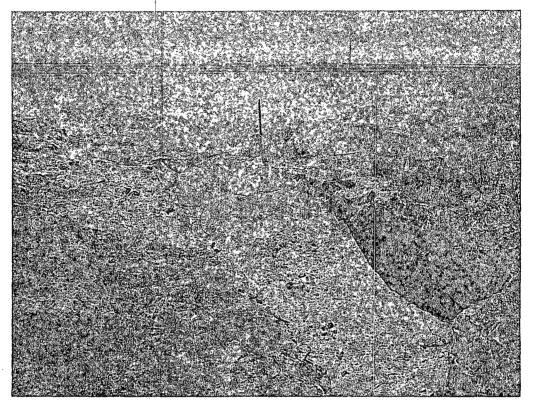


View West – Area of AH-2 and BH-1

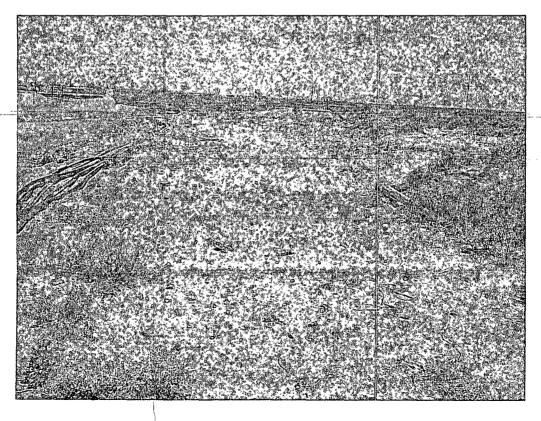
COG Operating LLC Mesilla State #2 Eddy County, New Mexico



TETRA TECH



View East - Backfill



View East - Backfill

Appendix A

1625 N. French Dr., Hobbs, NM 88240 Energy Mineral District II Energy Mineral 1301 W. Grand Avenue, Artesia, NM 88210 Oil Conse District III 000 Rio Brazos Road, Aztec, NM 87410 Oil Conse District IV 1220 Sou	f New Mexico s and Natural Re ervation Division th St. Francis I Fe, NM 87505	esources NO	CEIVED V 0 1 2012 CD ARTES	Revised October 10, 2003 Submit 2 Copies to appropriate	
Release Notification	on and Corr	ective Ac	tion	na nyan bi cini ana any ana ini ini na na nya na	
	OPERATO			l Report 🛛 Final Report	
Name of CompanyCOG Operating LLCAddress550 W. Texas, Suite 1300 Midland, Texas 79701	Contact Telephone No.		t Ellis 30-0077		
Facility Name Mesilla State #2	Facility Type	······	w line		
Surface Owner: State Mineral Owner	· · · · · · · · · · · · · · · · · · ·		Lease N	o. (API#) 30-015-31366	
	ON OF RELEA	ASE			
		eet from the	East/West Line	County Eddy	
Latitude N 32.83502	-)		
Type of Release: Oil and Produced Water	E OF RELEA		w Volume R	ecovered 13 bbls pw	
Source of Release: Steel flowline		8 bbls o	il	6 bbls oil Hour of Discovery	
· · ·	03/21/2012 03/21/20			2 7:00a.m.	
Was Immediate Notice Given?	If YES, To Whom?				
By Whom? Josh Russo	Date and Hour				
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse. N/A				
If a Watercourse was Impacted, Describe Fully.*					
Describe Cause of Problem and Remedial Action Taken.*					
The Mesilla State #2 steel flowline developed a hole in it releasing prod has been returned to service.	uced fluids. The de	efective join ha	s been replaced w	ith a new one and the flowline	
Describe Area Affected and Cleanup Action Taken.*					
Etra Tech personnel inspected the site and collected samples to define to proper disposal. The site was then brought up to surface grade with clear NMOCD for review.					
I hereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by t should their operations have failed to adequately investigate and remedia or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	notifications and pe he NMOCD marked ate contamination th	erform correcti d as "Final Rep nat pose a threa	ve actions for rele port" does not relie at to ground water,	ases which may endanger eve the operator of liability , surface water, human health	
(1AAT)	<u>(</u>	DIL CONS	ERVATION	DIVISION	
Signature:					
Printed Name: Ike Tavarez	Approved by Dist	rict Supervisor	: 		
Title: Project Manager	Approval Date:		Expiration [Date:	
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of App	proval:			
Date: 9-24-12 Phone: (432) 682-4559	Attached			Attached	
* Attach Additional Sheets If Necessary	L			L	

1025 N. French Dr., Hobbs, NM 88240 Energy Mir District II 1301 W. Grand Avenue, Artesia, NM 88210 Oil C 1000 Rio Brazos Road, Aztec, NM 87410 1220	Conservision South nta Fe ation	vation Div St. Franc NM 875	l Resourd vision is Dr. 05 prrectiv FOR	ve A Pa 432-7	30 (ction at Ellis 230-00 owline	I Initi 77	R Submit 2 Distric v al Report	Form C-141 evised October 10, 2003 Copies to appropriate t Office in accordance with Rule 116 on back side of form Final Report
LOCATION OF RELEASE								
Unit LetterSectionTownshipRangeFeet from theH1617S30E		South Line	Feet from	n the	East/V	West Line	County	Eddy
Latitude 32 5	0.104	Longitu	ide 103 5	8.159				
NAT	URE	of reli	CASE					
Type of Release Oil and Produced water		Volume of	Release	14bbls 8bbls	Oil		Recovered	13bbls PW 6bbls Oil
Source of Release Steel flowline		Date and H 03/21/2012		urrence	e		Hour of Di 2 7:00 a.m	
Was Immediate Notice Given?	quired	If YES, To						<u> </u>
By Whom?		Date and H					·····	
Was a Watercourse Reached?		If YES, Volume Impacting the Watercourse.						
If a Watercourse was Impacted, Describe Fully.*								
Describe Cause of Problem and Remedial Action Taken.* The Mesilla State #2 steel flowline developed a hole in it releasing has been returned to service.	produce	ed fluids. Th	e defective	ioint h	as been	replaced v	vith a new	one and the flowline
Describe Area Affected and Cleanup Action Taken.* Initially 22bbls of produced fluids were released from the ruptured spill area runs parallel to a lease road and measured an area of roug area to delineate any possible contamination from the release and w remediation work.	ihly 5' x	50' directly	off the roa	d in the	e pasture	e. Tetra Te	ch will san	ple the spill site
I hereby certify that the information given above is true and complet regulations all operators are required to report and/or file certain rel public health or the environment. The acceptance of a C-141 report should their operations have failed to adequately investigate and rest or the environment. In addition, NMOCD acceptance of a C-141 re- federal, state, or local laws and/or regulations.	lease not t by the mediate	tifications an NMOCD ma contaminatio	d perform rked as "Fi n that pose	correct inal Re e a thre	ive action port ^a do at to gro	ons for rele pes not reli- ound water.	ases which eve the ope , surface wa	may endanger rator of liability ater, human health
Signature:	-		<u>OIL C</u>	CONS	ERV	ATION	DIVISIO	<u>NO</u>
Printed Name: Josh Russo	A	pproved by I	District Sup	perviso	r:			
Title: HSE Coordinator	A	pproval Date			E	xpiration I	Date:	
E-mail Address: jrusso@conchoresources.com	C	onditions of .	Approval:				Attached	
Date: 03/27/2012 Phone: 432-212-2399 Attach Additional Sheets If Necessary								

Appendix B

Water Well Data Average Depth to Groundwater (ft) COG - Mesilla State #2 Eddy County, New Mexico

-1

	16 So	outh	2	29 East			16	South	;	30 East	t		16	Sout	h	h :
3	5	4	3	2	1	6	5	4	3	2	1	6	5	4		3
	8	9	10	11	12	7	8	9	10	11	12	7	8	9	-	10
8	17	16	15	14	13	18	17	16	15	14	13	18	17	16	-	15
9 10	20	21	22	23	24	19	20	21	22	23	24	19	20	21		22
10	29	28	27	26	25	30	29	28	27	26	25	30	29	28		27
1	32	33	34	35	36	31	32	33	34	35	36	31 290	32	33		34
	17 Sc	outh	:	29 East			17	South	÷	30 East	t		17	South		
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4		3
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9		10
18	17	16	15	14	13	18	17	16 SITE	15	14	13	18	17	16		15
19	20	21	22	BO 23	24	19	20	21	22	23	24	19	20	21	•	22
0	29 210	28	27	26	25	30	29	28	27	26	25	30	29	28		27
i		33	34	35 153	36	31	32	33	34	35	36	31	32	33		34 271
	18 Sc	outh		9 East			18	South		BO East		d Dece main	18	South		
5	5	4	3	2	1	6	5	4	3	2	1	6	5	4		3
,	8	9	10	11	12	7	8	9	10	11	12	7	8	9		10
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16		15
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21		22
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28		27
1	32	33	34	35					- 34	- 35	- 36				•	34
_	1		1						1	1	1	1	1			1

New Mexico State Engineers Well Reports

USGS Well Reports

Geology and Groundwater Conditions in Southern Eddy, County, NM

NMOCD - Groundwater Data

] Site Location

Appendix C

Report Date: April 11, 2012		Wor	k Order: 12040201	Page N	Jumber: 1 of 2	
		Summ	ary Report			
Ike Tavarez Tetra Tech				Report Date: April 1	11, 2012	
1910 N. Big Spr Midland, TX 79				Work Order: 120402	-	
Project Location Project Name: Project Number	COG/Mesilla S	itate #2				
			Date	Time	Date	
Sample	Description	Matrix	Date Taken	Time Taken	Date Received	
293106	AH-1 0-1'	Matrix soil				
293106 293107	AH-1 0-1' AH-1 1-1.5'	soil soil	Taken 2012-03-28 2012-03-28	Taken 00:00 00:00	Received 2012-03-30 2012-03-30	
293106 293107 293108	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5'	soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5'	soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293109 293110	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5'	soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293110 293110 293111	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1'	soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293110 293111 293111 293112	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5'	soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293110 293111 293112 293113	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5' AH-2 2-2.5'	soil soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293110 293111 293112 293113	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5' AH-2 2-2.5' AH-2 2.5-3'	soil soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293110 293111 293112 293113	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5' AH-2 2-2.5'	soil soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293110 293111 293112 293113	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5' AH-2 2-2.5' AH-2 2.5-3'	soil soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293110 293111 293112 293113 293114	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5' AH-2 2-2.5' AH-2 2.5-3' Benzee	soil soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 DRO	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30	
293106 293107 293108 293109 293110 293111 293112 293113 293114 Sample - Field C	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5' AH-2 2-2.5' AH-2 2-2.5' AH-2 2.5-3' Benzer (mg/Ka	soil soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 (mg/Kg) (mg/Kg)	Taken 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 (mg/Kg)	
293106 293107 293108 293109 293110 293111 293112 293113 293114 Sample - Field C 293106 - AH-1	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5' AH-2 1-1.5' AH-2 2-2.5' AH-2 2.5-3' Benzer (mg/Ks 0-1' 1.84	soil soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28	Taken 00:00	Received 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 2012-03-30 TPH GRO GRO (mg/Kg) 821	
293106 293107 293108 293109 293110 293111 293112 293113 293114 Sample - Field C 293106 - AH-1 293107 - AH-1	AH-1 0-1' AH-1 1-1.5' AH-1 2-2.5' AH-1 3-3.5' AH-1 4-4.5' AH-2 0-1' AH-2 1-1.5' AH-2 2-2.5' AH-2 2-2.5' AH-2 2.5-3' Benzer (mg/Ks 0-1' 1.64	soil soil soil soil soil soil soil soil	Taken 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 2012-03-28 8.40 14.0	Taken 00:00	Received 2012-03-30 30 2012-03-30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 <td< td=""><td></td></td<>	
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Sample: 293106 - AH-1 0-1'

Param	Flag	Result	Units	\mathbf{RL}
Chloride		241	mg/Kg	4

Sample: 293107 - AH-1 1-1.5'



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: April 11, 2012		Work Order: 12040201		Number: 2 of 2
Param	Flag	Result	Units	RL
Chloride		1430	mg/Kg	4
Sample: 293108 -	AH-1 2-2.5'			
Param	Flag	Result	Units	RL
Chloride		1480	mg/Kg	4
Sample: 293109 -	AH-1 3-3.5'			
Param	Flag	Result	Units	RL
Chloride		1910	mg/Kg	. 4
Sample: 293110 -				
Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4
Sample: 293111 -	AH-2 0-1'			
Param	AH-2 0-1' Flag	Result	Units	RL
Sample: 293111 - Param Chloride		Result 2540	Units mg/Kg	RL 4
Param Chloride	Flag			
Param Chloride Sample: 293112 - Param	Flag	2540 Result	mg/Kg Units	4 RL
Param	Flag AH-2 1-1.5'	2540 Result	mg/Kg	4
Param Chloride Sample: 293112 - Param Chloride	Flag AH-2 1-1.5' Flag	2540 Result	mg/Kg Units	4 RL
Param Chloride Sample: 293112 - Param Chloride Sample: 293113 -	Flag AH-2 1-1.5' Flag	2540 Result	mg/Kg Units	4
Param Chloride Sample: 293112 - Param	Flag AH-2 1-1.5' Flag AH-2 2-2.5'	2540 Result 1970	mg/Kg Units mg/Kg	4 RL
Param Chloride Sample: 293112 - Param Chloride Sample: 293113 - Param Chloride	Flag AH-2 1-1.5' Flag AH-2 2-2.5' Flag	2540 Result 1970 Result	mg/Kg Units mg/Kg Units	4 RL 4 RL
Param Chloride Sample: 293112 - Param Chloride Sample: 293113 - Param	Flag AH-2 1-1.5' Flag AH-2 2-2.5' Flag	2540 Result 1970 Result	mg/Kg Units mg/Kg Units	4 RL 4 RL



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6701 Aberdeen Avenue, Suite 9 Lubbock. Texas 79424 800-378-1296 806-794-1296 FAX 806 - 794 - 1298 Texas 79922 200 East Sunset Road, Suite E El Paso, 915-585-3443 FAX 915-585-4944 5002 Basin Street, Suite A1 Midland Texas 79703 432-689-6301 FAX 432 . 689 . 6313 (BioAquatic) 2501 Mayes Rd., Suite 100. Carrolition. Texas 75006 972-242-7750 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com Certifications NCTRCA DBE NELAP DoD LELAP WBE HUB Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: April 11, 2012

Work Order: 12040201

Project Location:Eddy Co., NMProject Name:COG/Mesilla State #2Project Number:114-6401354

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
293106	AH-1 0-1'	soil	2012-03-28	00:00	2012-03-30
293107	AH-1 1-1.5'	soil	2012-03-28	00:00	2012-03-30
293108	AH-1 2-2.5'	soil	2012-03-28	00:00	2012-03-30
293109	AH-1 3-3.5'	soil	2012-03-28	00:00	2012-03-30
293110	AH-1 4-4.5'	soil	2012-03-28	00:00	2012-03-30
293111	AH-2 0-1'	soil	2012-03-28	00:00	2012-03-30
293112	AH-2 1-1.5'	soil	2012-03-28	00:00	2012-03-30
293113	AH-2 2-2.5'	soil	2012-03-28	00:00	2012-03-30
293114	AH-2 2.5-3'	soil	2012-03-28	00:00	2012-03-30

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

Michael Al

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

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Page 2 of 43

1 -

Report Contents

Case Narrative

Analytical Report		6
Sample 293106 (AH-1 0-1')		6
Sample 293107 (AH-1 1-1.5')		7
Sample 293108 (AH-1 2-2.5')		8
Sample 293109 (AH-1 3-3.5')		8
Sample 293110 (AH-1 4-4.5')	1	9
Sample 293111 (AH-2 0-1')		9
Sample 293112 (AH-2 1-1.5')		10
Sample 293113 (AH-2 2-2.5')	 	12
Sample 293114 (AH-2 2.5-3')	 	13
Method Blanks		16
QC Batch 89888 - Method Blank (1) .		16
QC Batch 89908 - Method Blank (1) .]	16
QC Batch 89939 - Method Blank (1) .		16
QC Batch 89940 - Method Blank (1) .		17
QC Batch 89977 - Method Blank (1)		17
QC Batch 89994 - Method Blank (1).		17
QC Batch 89995 - Method Blank (1).	· · · · · · · · · · · · · · · · · · ·	18
QC Batch 90014 - Method Blank (1).		18
QC Batch 90033 - Method Blank (1).		18
QC Batch 90034 - Method Blank (1).	· · · · · · · · · · · · · · · · · · ·	19
QC Batch 90054 - Method Blank (1) .		19
QC Batch 90067 - Method Blank (1).		19
QC Batch 90068 - Method Blank (1).		20
•		
Laboratory Control Spikes		21
QC Batch 89888 - LCS (1)		21
QC Batch 89908 - LCS (1)		21
QC-Batch 89939 - LCS (1)		22
QC Batch 89940 - LCS (1)		22
QC Batch 89977 - LCS (1)	<i>, , , , , , , , , , , , , , , , , , ,</i>	23
QC Batch 89994 - LCS (1)		23
QC Batch 89995 - LCS (1)		24
QC Batch 90014 - LCS (1)		24
QC Batch 90033 - LCS (1)	• • • • • • • • • • • • • • • • • • • •	25
QC Batch 90034 - LCS (1)		25
QC Batch 90054 - LCS (1)		26
QC Batch 90067 - LCS (1) \ldots		26
QC Batch 90068 - LCS (1)		27
QC Batch 89888 - MS (1)		27
QC Batch 89908 - MS (1)		28
QC Batch 89939 - MS (1)	 •.•••••••••••••••••••••••••••••••••••	28
QC Batch 89940 - MS (1)		29

5

Page 3 of 43

QC Batch 89977 - MS (1)	. 30
QC Batch 89994 - MS (1)	
\overrightarrow{QC} Batch 89995 - MS (1)	. 30
QC Batch 90014 - MS (1)	
QC Batch 90033 - MS (1)	
$QC Batch 90034 - MS (1) \dots \dots$	
$QC Batch 90054 - MS (1) \dots \dots$	
QC Batch 90067 - MS (1)	
QC Batch 90068 - MS (1) \ldots \ldots \ldots \ldots	. 34
Calibustics Standards	35
Calibration Standards	
QC Batch 89888 - CCV (2)	
QC Batch 89888 - CCV (3)	
QC Batch 89888 - CCV (4) $ $	
QC Batch 89908 - CCV (2)	
QC Batch 89908 - CCV (3)	
QC Batch 89939 - CCV (2) \ldots	. 36
QC Batch 89939 - CCV (3)	. 36
QC Batch 89940 - CCV (1)	. 36
QC Batch 89940 - CCV (2) \ldots	. 36
QC Batch 89940 - $CCV(3)$. 37
QC Batch 89977 - CCV (1)	. 37
QC Batch 89977 - CCV (2)	. 37
QC Batch 89977 - CCV (3)	
QC Batch 89994 - CCV (1)	
QC Batch 89994 - CCV (2)	
QC Batch 89994 - CCV (3)	
QC Batch 89995 - CCV (2)	
QC Batch 89995 - CCV (3)	
QC Batch 90014 - CCV (2)	
QC-Batch 90014 - CCV (3)	
QC Batch $90033 - CCV(1)$	
QC Batch 90033 - CCV (2)	
QC Batch $90033 - CCV(2)$	
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QC Batch $90034 - CCV(2)$	
QC Batch $90054 - ICV(1)$	
QC Batch $90054 - CCV(1)$	
QC Batch 90067 - CCV (1)	
QC Batch 90067 - CCV (2)	
QC Batch 90068 - CCV (1)	
QC Batch 90068 - CCV (2) \ldots \ldots \ldots	. 42
A mu an Jin	40
Appendix Dependent Definitions	43
Report Definitions	
Laboratory Certifications	
Standard Flags	
Attachments	. 43

Page 4 of 43

Case Narrative

Samples for project COG/Mesilla State $\#^2_2$ were received by TraceAnalysis, Inc. on 2012-03-30 and assigned to work order 12040201. Samples for work order 12040201 were received intact at a temperature of 0.9 C.

.....

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

		Prep	Prep	\mathbf{QC}	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	76335	2012-04-03 at 10:12	89940	2012-04-03 at 10:29
BTEX	S 8021B	76371	2012-04-04 at 10:00	89995	2012-04-04 at 11:05
BTEX	S 8021B	76405	2012-04-05 at 09:44	90033	2012-04-05 at 09:59
BTEX	S 8021B	76426	2012-04-06 at 10:00	90067	2012-04-06 at 11:58
Chloride (Titration)	SM 4500-Cl B	76362	2012-04-04 at 12:51	90054	2012-04-08 at 08:35
TPH DRO - NEW	S 8015 D	76291	2012-04-02 at 13:55	89888	2012-04-02 at 13:59
TPH DRO - NEW	S 8015 D	76359	2012-04-04 at 14:12	89977	2012-04-04 at 14:16
TPH DRO - NEW	S 8015 D	76385	2012-04-05 at 13:14	90014	2012-04-05 at 13:16
TPH GRO	S 8015 D	76308	2012-04-02 at 10:48	89908	2012-04-03 at 11:36
TPH GRO	S 8015 D	76335	2012-04-03 at 10:12	89939	2012-04-03 at 12:00
TPH GRO	S 8015 D	76371	2012-04-04 at 10:00	89994	2012-04-04 at 10:25
TPH GRO	S 8015 D	76405	2012-04-05 at 09:44	90034	2012-04-05 at 10:36
TPH GRO	S 8015 D	76426	2012-04-06 at 10:00	90068	2012-04-06 at 12:25

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 12040201 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: April 11, 2012 114-6401354

Work Order: 12040201 COG/Mesilla State #2 Page Number: 6 of 43 Eddy Co., NM

Analytical Report

Sample: 293106 - AH-1 0-1'

aboratory: Midland analysis: BTEX QC Batch: 89940 Prep Batch: 76335			Analytical Method: S 8021B Date Analyzed: 2012-04-03 Sample Preparation: 2012-04-03					Prep Method: S 5033 Analyzed By: tc Prepared By: tc		
		i			\mathbf{RL}					
Parameter	Flag		Cert		Result	Un		Dilution		RL
Benzene			1		1.64	mg/I		10		0.0200
Toluene			1		13.6	mg/I		10		0.0200
Ethylbenzene			1		8.40	mg/I		10		0.0200
Xylene			1	<u> </u>	14.0	mg/I	٢g	10		0.0200
Surrogate		Flag	g Cert	Result	Units	Dilution	Spike Amount	Percent Recovery		overy mits
Trifluorotoluene (TFT)	Qar	Qar	<u> </u>	7.11	mg/Kg	10	10.0	71		135.4
4-Bromofluorobenzene (4-BFB)		4.00		9.13	mg/Kg	10	10.0	91		- 158.9
Sample: 293106 - AH-1 0-1' Laboratory: Midland Analysis: Chloride (Titratic OC Batch: 90054				lytical Me		M 4500-Cl]	В		Aethod:	,
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362	on)		Date Sam	e Analyze ple Prepa	d: 2 ration: 2 RL	012-04-08 012-04-04		Analyz Prepar	ed By:	AR AR
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362 Parameter			Date	e Analyze ple Prepa	d: 2 ration: 2 RL Result	012-04-08 012-04-04	nits	Analyz Prepar Dilution	ed By:	AR AR RL
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362	n) Flag		Date Sam	e Analyze ple Prepa	d: 2 ration: 2 RL	012-04-08 012-04-04	nits	Analyz Prepar	ed By:	AR AR
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362 Parameter Chloride	n) Flag		Date Sam	e Analyze ple Prepa	d: 2 ration: 2 RL Result	012-04-08 012-04-04	nits	Analyz Prepar Dilution	ed By:	AR AR RL
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362 Parameter Chloride Sample: 293106 - AH-1 0-1' Laboratory: Midland Analysis: TPH DRO - NEW	Flag		Date Sam Cert	Analyze ple Prepa	d: 2 ration: 2 RL Result 241	012-04-08 012-04-04	nits	Analyz Prepar Dilution 50 Prep M	red By: red By:	AR AR RL 4.00
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362 Parameter Chloride Sample: 293106 - AH-1 0-1' Laboratory: Midland	Flag		Date Sam Cert	Analyze ple Prepa	d: 2 ration: 2 RL Result 241	012-04-08 012-04-04 Ur Ur 	nits	Analyz Prepar Dilution 50 Prep M Analyz	Aethod: red By:	AR AR RL 4.00
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362 Parameter Chloride Sample: 293106 - AH-1 0-1' Laboratory: Midland Analysis: TPH DRO - NEW	Flag		Date Sam Cert Ana Dat	Analyze ple Prepa	d: 2 ration: 2 RL Result 241 ethod: ed:	012-04-08 012-04-04 Ur mg/	nits	Analyz Prepar Dilution 50 Prep M	Aethod: red By:	AR AR RL 4.00
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362 Parameter Chloride Sample: 293106 - AH-1 0-1' Laboratory: Midland Analysis: TPH DRO - NEW QC Batch: 89888	Flag		Date Sam Cert Ana Dat	Analyze ple Prepa alytical M e Analyze	d: 2 ration: 2 RL Result 241 ethod: ed:	012-04-08 012-04-04 Ur mg/ S 8015 D 2012-04-02	nits	Analyz Prepar Dilution 50 Prep M Analyz	Aethod: red By:	AR AR RL 4.00 N/A DA
Laboratory: Midland Analysis: Chloride (Titratic QC Batch: 90054 Prep Batch: 76362 Parameter Chloride Sample: 293106 - AH-1 0-1' Laboratory: Midland Analysis: TPH DRO - NEW QC Batch: 89888	Flag		Date Sam Cert Ana Dat	Analyze ple Prepa alytical M se Analyze nple Prep	d: 2 ration: 2 RL Result 241 ethod: ed: aration:	012-04-08 012-04-04 Ur mg/ 5 8015 D 2012-04-02 2012-04-02	nits	Analyz Prepar Dilution 50 Prep M Analyz	Aethod: red By:	AR AR RL 4.00 N/A DA

Report Date 114-6401354				•	Work Ord COG/Mes					umber: Eddy (., NN
Surrogate		Flag	Cert	Result	Units	Dil	ution A	Spike Amount	Percent Recovery		covery imits
n-Tricosane	Qar	Qar		570	mg/Ka	3	10	100	570	49.3	- 157.8
Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch:	3106 - AI Midland TPH GR 89908 76308			Date A	cal Metho nalyzed: Preparati	201)15 D 2-04-03 2-04-02		Prep Mer Analyzed Prepared	l By:	S 503 tc tc
Parameter			Flag	Cert		RL Result	τ	Jnits	Dilution		RI
GRO				1		821		g/Kg	10		2.00
					Result	Units	Dilution	Spike Amount	Percent Recovery		covery
	(7777777)		Fl	ag Cert							imits
Surrogate Trifluorotolue 4-Bromofluor Sample: 29	obenzene (• <u> </u>		ag Cert	9.40 11.1	mg/Kg mg/Kg	10 10	10.0 10.0	94 111	58.5	imits - 155.1 - 162.2
Trifluorotolue 4-Bromofluor Sample: 29 Laboratory: Analysis: QC Batch:	obenzene (3107 - AF Midland Chloride 90054	H-1 1-1.	5'	Ana Dat	9.40	mg/Kg mg/Kg ethod: d:	10	10.0 10.0	94	58.5 45.1 fethod: ed By:	- 155.1 - 162.2 : N/A AR
Trifluorotolue 4-Bromofluor Sample: 29 Laboratory: Analysis:	obenzene (3107 - AF Midland Chloride 90054	H-1 1-1.	5'	Ana Dat	9.40 11.1 slytical Me e Analyze	mg/Kg mg/Kg ethod: d:	10 10 SM 4500-Cl 2012-04-08 2012-04-04	10.0 10.0	94 111 Prep M Analyz	58.5 45.1 fethod: ed By:	- 155.1 - 162.2 : N/A AR
Trifluorotolue 4-Bromofluor Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch:	obenzene (3107 - AF Midland Chloride 90054	H-1 1-1.	5' n)	Ana Dat Sam Cert	9.40 11.1 slytical Me e Analyze	mg/Kg mg/Kg ethod: d: wration: RL	10 10 SM 4500-Cl 2012-04-08 2012-04-04	10.0 10.0	94 111 Prep M Analyz Prepare	58.5 45.1 fethod: ed By: ed By:	- 155.1 - 162.2 : N/A AR AR RI
Trifluorotolue 4-Bromofluor Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch:	3107 - AF Midland Chloride 90054 76362 3107 - AF Midland TPH DR4 89977	H-1 1-1. (Titratio	5' n) Flag 5'	Ana Dat San Cert An Da San	9.40 11.1 slytical Me e Analyze pple Prepa	mg/Kg mg/Kg ethod: d: uration: RL Result 1430 Iethod: ed: aration: RL	10 10 10 SM 4500-Cl 2012-04-08 2012-04-04 U 2012-04-04 2012-04-04	10.0 10.0	94 111 Prep M Analyz Prepare Dilution 100 Prep M Analyz Prepare	58.5 45.1 fethod: ed By: ed By:	- 155.1 - 162.2 - 162.
Trifluorotolue 4-Bromofluor Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 29 Laboratory: Analysis: QC Batch:	3107 - AF Midland Chloride 90054 76362 3107 - AF Midland TPH DR4 89977	H-1 1-1. (Titratio	5' n) <u>Flag</u> 5'	Ana Dat Sam Cert An Da	9.40 11.1 alytical Me ple Prepa	mg/Kg mg/Kg ethod: d: aration: RL Result 1430 Iethod: ed: maration:	10 10 10 SM 4500-Cl 2012-04-08 2012-04-04 U 2012-04-04 2012-04-04 U	10.0 10.0	94 111 Prep M Analyz Prepare Dilution 100 Prep M Analyz	58.5 45.1 fethod: ed By: ed By:	- 155.1 - 162.2 - 162.

114-6401354	oril 11, 2012			Work Ord COG/Mes					ımber: 8 Eddy Co.	
Surrogate	Flag	Cert	Result	Units	Di	lution	Spike Amount	Percent Recovery	Recov Limi	
n-Tricosane			157	mg/Kg		1	100	157	49.3 - 1	57.5
Sample: 29310'	7 - AH-1 1-1.	5'								
	dland									
	'H GRO			cal Method		8015 D		Prep Met		5035
QC Batch: 899			Date Ar			12-04-04		Analyzed	-	
Prep Batch: 763	371		Sample	Preparatio	on: 201	12-04-04		Prepared	By: tc	
Parameter		Flag	Cert		RL Result		Units	Dilution		\mathbf{RL}
GRO		1 1005	1		4.36		ng/Kg	1		2.00
Surrogate		Flag	Cert	Result	Units	Dilutio	Spike	Percent	Recov Limi	ery
Trifluorotoluene (2.22	mg/Kg	ς 1	2.00	111	58.5 - 1	55.1
4-Bromofluorober	nzene (4-BFB)			1.99	mg/Kg	ç 1	2.00	100	45.1 - 1	62.2
Laboratory: Mi Analysis: Ch QC Batch: 900	dland loride (Titratio)54		Date	lytical Me e Analyzed ple Prepar	l:	SM 4500- 2012-04-0 2012-04-0	8	Analyze	ed By:	N/A AR AR
Laboratory: Mi Analysis: Ch QC Batch: 900	dland loride (Titratio)54		Date		l: ration:	2012-04-0	8		ed By:	'
Laboratory: Mi Analysis: Ch QC Batch: 900 Prep Batch: 763	dland loride (Titratio)54	n)	Date Sam	e Analyzed ple Prepar	l: ration: RL	2012-04-0	8	Analyze Prepare	ed By:	ÁR AR
QC Batch: 900 Prep Batch: 763	dland loride (Titratio)54		Date	e Analyzed ple Prepar	l: ration:	2012-04-0 2012-04-0	8	Analyze	ed By:	ÁR
Laboratory: Mi Analysis: Ch QC Batch: 900 Prep Batch: 763 Parameter Chloride Sample: 293109 Laboratory: Mie	dland loride (Titratio)54 362 9 - AH-1 3-3 . dland	n) Flag;	Date Sam Cert	e Analyzed ple Prepar	l: ration: RL <u>Result</u> 1480	2012-04-0 2012-04-0	8 4 <u>Units</u> ng/Kg	Analyze Prepare Dilution 100	ed By: ed By:	AR AR <u>RL</u> 4.00
Laboratory: Mi Analysis: Ch QC Batch: 900 Prep Batch: 763 Parameter Chloride Sample: 293109 Laboratory: Mi Analysis: Ch	dland loride (Titratio)54 362 9 - AH-1 3-3.8 dland loride (Titratio	n) Flag;	Date Sam Cert	e Analyzed ple Prepar	l: ration: RL <u>Result</u> 1480	2012-04-0 2012-04-0 1 SM 4500-	8 4 <u>Units</u> ng/Kg Cl B	Analyze Prepare Dilution 100	ed By: ed By:	AR AR <u>RL</u> 4.00
Laboratory: Mi Analysis: Ch QC Batch: 900 Prep Batch: 763 Parameter Chloride Sample: 293109 Laboratory: Mie	dland loride (Titratio)54 362 9 - AH-1 3-3.8 dland loride (Titration)54	n) Flag;	Date Sam Cert Ana Date	e Analyzed ple Prepar	l: ration: RL <u>Result</u> 1480	2012-04-0 2012-04-0	8 4 <u>Units</u> ng/Kg Cl B 8	Analyze Prepare Dilution 100	ed By: ed By: ed By:	AR AR <u>RL</u> 4.00

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114-64013	te: April 11, 2012 54			Vork Order: 1204 OG/Mesilla Stat			Page Numl Edd	per: 9 of 43 ly Co., NM
sample 293	109 continued							
-				RL				
Parameter		Flag	Cert	Result	Ur	iits	Dilution	RL
Parameter		Flag	Cert	RL Result	Un	ite	Dilution	\mathbf{RL}
Chloride		riag	Oero	1910	mg/		100	4.00
Sample: 2 Laboratory Analysis: QC Batch: Prep Batch	Chloride (Titratic 90054		Date	ytical Method: Analyzed: ble Preparation:	SM 4500-Cl I 2012-04-08 2012-04-04	3	Prep Meth Analyzed 1 Prepared I	By: AR
			, Source	•			i iopuiou i	<i></i>
Parameter		Flag	Cert	RL Result	Un	its	Dilution	\mathbf{RL}
Chloride		U		<200	mg/.		50	4.00
Laboratory	2 93111 - AH-2 0-1' : Midland BTEX 89940		Analytical Date Anal Sample Pr	yzed: 2012	21B -04-03 -04-03		Prep Methoc _Analyzed By Prepared By	: tc
Analysis: QC Batch: Prep Batch			Dample 11	eparation: 2012	01 00			. vi
QC Batch: Prep Batch		Flor		RL			Dilution	се ж <i>и</i> л.,
QC Batch:		Flag		-	Uni	ts	Dilution 500	RL
QC Batch: Prep Batch Parameter Benzene Toluene	: 76335	Flag	Cert	RL Result 123 344	Uni mg/K mg/K	ts g g	Dilution 500 500	RL 0.0200 0.0200
QC Batch: Prep Batch Parameter Benzene Toluene Ethylbenze	: 76335	Flag	Cert 1 1	RL Result 123 344 177	Uni mg/K mg/K mg/K	ts g g	Dilution 500 500 500	RL 0.0200 0.0200 0.0200
QC Batch: Prep Batch Parameter Benzene Toluene	: 76335	Flag		RL Result 123 344	Uni mg/K mg/K	ts g g	Dilution 500 500	RL 0.0200 0.0200
QC Batch: Prep Batch Parameter Benzene Toluene Ethylbenze Xylene Surrogate	: 76335	Flag Flag	Cert 1 1 1 1 1 1	RL Result 123 344 177 286 Result Units	Uni mg/K mg/K mg/K Dilution	ts g g g Spike Amount	Dilution 500 500 500 500 Percent Recovery	RL 0.0200 0.0200 0.0200 0.0200 Recovery Limits
QC Batch: Prep Batch Parameter Benzene Toluene Ethylbenze Xylene Surrogate Trifluorotol	: 76335		Cert 1 1 1 1 1 1	RL Result 123 344 177 286	Uni mg/K mg/K mg/K Dilution 500	ts g g g Spike	Dilution 500 500 500 500 93	RL 0.0200 0.0200 0.0200 0.0200 Recovery

ľ

114-6401354	:: April 11, 2012		Vork-Order:1204 OG/Mesilla Stat		· · · · · · · · · ·	Page Numbe Edd	er: 10 of 43 ly Co., NM	
Sample: 29	3111 - AH-2 0-1	,	1					
Laboratory:	Midland							
Analysis:	Chloride (Titrati	on)	Anal	ytical Method:	SM 450	00-Cl B	Prep Meth	hod: N/A
QC Batch:	90054		Date	Analyzed:	2012-04	4-08	Analyzed	By: AR
Prep Batch:	76362		Samj	ple Preparation:	2012-04	4-04	Prepared 1	By: AR
				\mathbf{RL}				
Parameter		Flag	Cert	Result		Units	Dilution	RL
Chloride				2540		mg/Kg	100	4.00
	3111 - AH-2 0-1	>						
Sample: 29 Laboratory: Analysis:	Midland TPH DRO - NEV			alytical Method: e Analyzed:	S 801! 2012-(-	Prep Metł Analyzed	'
Sample: 29	Midland		Dat	alytical Method: e Analyzed: 1ple Preparation	2012-0	04-02	Prep Meth Analyzed Prepared 1	By: DA
Sample: 29 Laboratory: Analysis: QC Batch:	Midland TPH DRO - NEV 89888		Dat	e Analyzed: ple Preparation	2012-0	04-02	Analyzed	By: DA
Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - NEV 89888	W	Dat	e Analyzed:	2012-0	04-02	Analyzed	By: DA By: DA
Sample: 29 Laboratory: Analysis: QC Batch:	Midland TPH DRO - NEV 89888		Dat Sarr	e Analyzed: uple Preparation RL	2012-0)4-02)4-02	Analyzed Prepared 1	By: DA By: DA RL
Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland TPH DRO - NEV 89888	W	Dat Sarr Cert	e Analyzed: nple Preparation RL Result	2012-0	04-02 04-02 Units	Analyzed Prepared D Dilution 20	By: DA
Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland TPH DRO - NEV 89888	W	Dat Sarr Cert	e Analyzed: iple Preparation RL Result 16100	2012-0	04-02 04-02 Units mg/Kg	Analyzed Prepared D Dilution 20	By: DA By: DA RL 50.0

Sample: 293111 - AH-2 0-1'

Analysis: QC Batch: Prep Batch:	TPH GRO 89939 76335	·· 644.11 - 22	a tanàn kaominina dia kaomi	Date A	cal Metho nalyzed: Preparat	2012	-04-03	v Porte Parts - Fordants - Fordanaus	Prep Met Analyzed Prepared	
						\mathbf{RL}				
Parameter		Flag		Cert		Result	U	nits	Dilution	RI
GRO		Qs		1		9470	mg/	/Kg	500	2.00
								Spike	Percent	Recovery
Surrogate			Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)				467	mg/Kg	500	500	93	58.5 - 155.
	robenzene (4-BFB)				568	mg/Kg	500	500	114	45.1 - 162.

114-6401354	e: April 11, 2012				ler: 12040 silla State			Page Nur H	Eddy C	
Sample: 29	93112 - AH-2 1-1.5	5'								
Laboratory:	Midland	1								
Analysis:	BTEX		Analytica		d: S 802	21B		Prep Met		S 5035
QC Batch:	90033		Date Ana	lyzed:	2012-	-04-05		Analyzed	l By:	tc
Prep Batch:	76405		Sample P	reparatio	on: 2012-	-04-05		Prepared	By:	tc
					RL					
Parameter		Flag	Cert		Result		nits	Dilution		RL
Benzene		I	1		129	mg/		500		0.0200
Toluene			1		334	mg/		500		0.0200
Ethylbenzen	e		1		182	mg/		500		0.0200
Xylene			1		286	mg/	'Kg	500	<u> </u>	0.0200
			~ .	- . ,			Spike	Percent		overy
Surrogate	 A manual station for the first of the state of the state	Flag	Cert	Result	Units	Dilution	Amount	Recovery		mits
Trifluorotolu				476	mg/Kg		500	95 00		135.4
4-Bromotiuo	robenzene (4-BFB)		<u> </u>	495	mg/Kg	500	500	99	63.0 -	- 158.9
Laboratory: Analysis:	Chloride (Titration			lytical M		SM 4500-Cl	В	Prep M		
Laboratory:	Midland Chloride (Titratior 90054		Date	lytical M e Analyze ple Prepa	ed: aration:	SM 4500-Cl 2012-04-08 2012-04-04	В	Prep M Analyzo Prepare	ed By:	N/A AR AR
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titratior 90054 76362	n)	Date Sam	e Analyze	ed: aration: RL	2012-04-08 2012-04-04		Analyze Prepare	ed By:	AR AR
Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland Chloride (Titratior 90054 76362		Date	e Analyze	ed: aration: RL Result	2012-04-08 2012-04-04 U	nits	Analyze Prepare Dilution	ed By:	AR AR RL
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration 90054 76362	n)	Date Sam	e Analyze ple Prepa	ed: aration: RL	2012-04-08 2012-04-04 U mg	nits /Kg	Analyze Prepare	ed By:	AR AR
Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride	Midland Chloride (Titration 90054 76362	n) Flag	Date Sam	e Analyze ple Prepa	ed: aration: RL Result 1970	2012-04-08 2012-04-04 U mg	nits /Kg	Analyze Prepare Dilution	ed By:	AR AR RL
Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 29	Midland Chloride (Titration 90054 76362 93112 - AH-2 1-1.5	n) Flag	Date Sam	e Analyze ple Prepa	ed: aration: RL Result 1970	2012-04-08 2012-04-04 U mg	nits /Kg	Analyze Prepare Dilution	ed By:	AR AR RL
Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 29 Laboratory:	Midland Chloride (Titration 90054 76362 93112 - AH-2 1-1.5	n) Flag	Date Sam Cert	e Analyze ple Prepa	ed: aration: RL Result 1970	2012-04-08 2012-04-04 U mg	nits /Kg	Analyze Prepare Dilution 100	ed By: ed By:	AR AR RL 4.00
Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 29	Midland Chloride (Titration 90054 76362 9 3112 - AH-2 1-1.5 Midland	n) Flag	Date Sam Cert	e Analyze ple Prepa	ed: aration: RL Result 1970	2012-04-08 2012-04-04 U mg	nits /Kg	Analyze Prepare Dilution 100 Prep M Analyze	ed By: ed By: fethod: ed By:	AR AR RL 4.00
Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 29 Laboratory: Analysis:	Midland Chloride (Titration 90054 76362 93112 - AH-2 1-1.5 Midland TPH DRO - NEW 89977	n) Flag	Date Sam Cert	alytical N	ed: aration: RL Result 1970	2012-04-08 2012-04-04 U mg S 8015 D	nits /Kg	Analyze Prepare Dilution 100 Prep M	ed By: ed By: fethod: ed By:	AR AR RL 4.00
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration 90054 76362 93112 - AH-2 1-1.5 Midland TPH DRO - NEW 89977 76359	n) Flag	Date Sam Cert Ana Dat San	alytical N	ed: aration: RL Result 1970 Method: zed: paration: RL	2012-04-08 2012-04-04 mg S 8015 D 2012-04-04 2012-04-04	nits /Kg	Analyze Prepare Dilution 100 Prep M Analyze Prepare	ed By: ed By: fethod: ed By:	AR AR RL 4.00 N/A DA DA
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland Chloride (Titration 90054 76362 93112 - AH-2 1-1.5 Midland TPH DRO - NEW 89977 76359	n) Flag 5'	Date Sam Cert Ana Dat San Cert	alytical N	ed: aration: RL Result 1970 Method: zed: paration: RL Result	2012-04-08 2012-04-04 U mg S 8015 D 2012-04-04 2012-04-04	nits	Analyze Prepare Dilution 100 Prep M Analyze Prepare Dilution	ed By: ed By: fethod: ed By:	AR AR RL 4.00 N/A DA DA RL
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration 90054 76362 93112 - AH-2 1-1.5 Midland TPH DRO - NEW 89977 76359	n) Flag	Date Sam Cert Ana Dat San	alytical N	ed: aration: RL Result 1970 Method: zed: paration: RL	2012-04-08 2012-04-04 U mg S 8015 D 2012-04-04 2012-04-04	nits /Kg	Analyze Prepare Dilution 100 Prep M Analyze Prepare	ed By: ed By: fethod: ed By:	AR AR RL 4.00 N/A DA DA RL
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland Chloride (Titration 90054 76362 93112 - AH-2 1-1.5 Midland TPH DRO - NEW 89977 76359	n) Flag 5'	Date Sam Cert Ana Dat San Cert	alytical N	ed: aration: RL Result 1970 Method: zed: paration: RL Result	2012-04-08 2012-04-04 S 8015 D 2012-04-04 2012-04-04 2012-04-04	nits	Analyze Prepare Dilution 100 Prep M Analyze Prepare Dilution	ed By: ed By: fethod: ed By: ed By:	AR AR RL 4.00 N/A DA DA
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland Chloride (Titration 90054 76362 93112 - AH-2 1-1.5 Midland TPH DRO - NEW 89977 76359	n) Flag 5'	Date Sam Cert Ana Dat San Cert	alytical N	ed: aration: RL Result 1970 Method: zed: paration: RL Result 14400	2012-04-08 2012-04-04 mg S 8015 D 2012-04-04 2012-04-04 U mg	Inits /Kg /nits /Kg	Analyze Prepare Dilution 100 Prep M Analyze Prepare Dilution 20	ed By: ed By: fethod: ed By: ed By: ed By:	AR AR RL 4.00 N/A DA DA RL 50.0

Report Date: April 11, 2012 114-6401354		Work Ord COG/Me	Page Number: 12 of 43 Eddy Co., NM					
Sample: 293112 - AH-2 1-1.	5'							
Laboratory: Midland Analysis: TPH GRO QC Batch: 90034 Prep Batch: 76405		Analytic Date An Sample		2012	15 D -04-05 -04-05		Prep Met Analyzed Prepared	By: tc
Parameter	Flag	Cert		Result	U	nits	Dilution	\mathbf{RL}
GRO		1		9780	mg/	′Kg	500	2.00
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)			480 501	mg/Kg mg/Kg	500 500	500 500	96 100	58.5 - 155.1 45.1 - 162.2 '
	,			0/0			100	

Sample: 293113 - AH-2 2-2.5'

	Laboratory: Midland Analysis: BTEX QC Batch: 89995 Prep Batch: 76371		Analytical Metho Date Analyzed: Sample Preparati	2012-0	04-04		-	thod: S 5035 l By: tc By: tc	
				\mathbf{RL}					
	Parameter	Flag	Cert	\mathbf{Result}	Un	its	Dilution	\mathbf{RL}	
	Benzene		1	87.7	mg/l	Kg	100	0.0200	-
	Toluene		1	235	mg/]	Kg	100	0.0200	
	Ethylbenzene		1	125	mg/l	Kg	100	0.0200	
11 Januari I.	Xylene	· · · · · · · · · · · · · · · · · · ·	1	196	mg/		100	0.0200	-
						Spike	Percent	Recovery	
and a share the second	Surrogate	Flag	Cert Result	Units	Dilution	Amount	Recovery	Limits	
	Trifluorotoluene (TFT)		89.8	mg/Kg	100	100	90	75 - 135.4	-
	4-Bromofluorobenzene (4-BFB)		112	mg/Kg	100	100	112	63.6 - 158.9	-

Sample: 293113 - AH-2 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90054	Date Analyzed:	2012-04-08	Analyzed By:	AR
Prep Batch:	76362	 Sample Preparation:	2012-04-04	Prepared By:	AR
				 1	

continued ...

Report Date: April 11, 2012 114-6401354			1	Vork Order: 1 OG/Mesilla S			Page Number: 13 of Eddy Co., N		
sample 293113	3 continued								
			ł	F	L				
Parameter		Flag	Cert	Resu	ılt	Units	Dilution		RL
			!		ĽL				
Parameter		Flag	Cert	Resi		Units	Dilution		RL
Chloride				784	40	mg/Kg	100		4.00
Sample: 293	3113 - AH-2 2-2	2.5'							
Laboratory: Analysis: QC Batch:	5 113 - AH-2 2-2 Midland TPH DRO - NE [*] 89977 76359		Dat	lytical Metho e Analyzed: 1ple Preparati	2012-	04-04	Prep M Analyze Prepare	ed By:	N/A DA DA
Laboratory: Analysis: QC Batch:	Midland TPH DRO - NE' 89977	W	Dat	e Analyzed: ple Preparati	2012-	04-04	Analyze Prepare	ed By:	DA
Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland TPH DRO - NE' 89977		Dat	e Analyzed: pple Preparati F Resu	2012- on: 2012- L llt	04-04 04-04 Units	Analyze Prepare Dilution	ed By:	DA DA RL
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - NE' 89977	W	Dat Sam	e Analyzed: 1ple Preparati F	2012- on: 2012- L llt	04-04 04-04	Analyze Prepare	ed By:	DA DA
Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland TPH DRO - NE' 89977	W Flag	Dat Sam Cert	e Analyzed: pple Preparati F Resu	2012- on: 2012- L llt	04-04 04-04 Units	Analyze Prepare Dilution	ed By:	DA DA RL 50.0

Sample: 293113 - AH-2 2-2.5'

•	Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 89994 76371		2.1 i -	Date A	cal Metho nalyzed: Preparat	2012	15 D -04-04 -04-04			hod: S 5035 By: tc By: tc	
2 - 200 - 1. 2004 - 1. 2 - 2							RL				a na sa ka wa ka sa	
	Parameter		Flag		Cert		Result	U	nits	Dilution	\mathbf{RL}	
	GRO				1		9290	mg	/Kg	100	2.00	
	Surrogate		Fl	ag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
	Trifluorotolue	ene (TFT)				92.5	mg/Kg	100	100	92	58.5 - 155.1	
	4-Bromofluor	obenzene (4-BFB)				115	mg/Kg	100	100	115	45.1 - 162.2	

Report Date: April 11, 2012 114-6401354		Work Ord COG/Mes	Page Number: -14 of 43 Eddy Co., NM					
Sample: 293114 - AH-2 2.5-3'	1							
Laboratory: Midland								
Analysis: BTEX	Analytica	al Method	l: S 8021	B		Prep Method: S 5035		
QC Batch: 90067	Date Ana	alyzed:	2012-0	4-06		Analyzed	l By: AG	
Prep Batch: 76426	Sample P	reparatio	n: 2012-0	04-06		Prepared	By: AG	
			\mathbf{RL}					
Parameter Flag	Cert		Result	Un	its	Dilution	\mathbf{RL}	
Benzene	1		198	mg/l	Kg	500	0.0200	
Toluene	1		443	mg/l	Kg	500	0.0200	
Ethylbenzene	; 1		216	mg/l	Kg	500	0.0200	
Xylene	1		377	mg/1		500	0.0200	
					Spike	Percent	Recovery	
Surrogate Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)		482	mg/Kg	500	500	96	75 - 135.4	
4-Bromofluorobenzene (4-BFB)		554	mg/Kg	500	500	111	63.6 - 158.9	

Chloride			7030	mg/Kg	100	4.00
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Prep Batch:	76362	Sample Preparation:		2012-04-04	Prepared By:	AR
Laboratory: Analysis: QC Batch:	Midland Chloride (Titration) 90054	Date An	•	SM 4500-Cl B 2012-04-08	5 5	ÁR

Sample: 293114 - AH-2 2.5-3'

Sample. 23			-0	فاستفعفته والتناب التابات			and the state of the same state of the state	1, 401 C. 1399. Course 191. Code Courses and Comm	n galan salah menduknak arak m
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - NEW 90014 76385			Dat	lytical Meth e Analyzed: aple Prepara	2012-	04-05	Analy	Method: N/ zed By: DA red By: DA
						RL			
Parameter			Flag	Cert	Re	esult	Units	Dilution	R
DRO				1	8	450	mg/Kg	10	50
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		906	mg/Kg	10	100	906	49.3 - 157

Report Date: 114-6401354	April 11, 2012				ler: 120402 silla State :				mber: 15 of 43 Eddy Co., NM
-	3114 - AH-2 2.5- Midland TPH GRO 90068 76426	3,	Date A	ical Meth analyzed: Preparat	2012	15 D -04-06 -04-06		Prep Met Analyzed Prepared	chod: S 5035 By: AG By: AG
			_		RL				
Parameter GRO		Flag	Cert	;	Result 14200	U: mg/	nits /Ka	Dilution 500	RL 2.00
					14200	mg/			
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)	r iag	Cert	489	mg/Kg	500	500		58.5 - 155.1
4-Bromofluor	obenzene (4-BFB)			505	mg/Kg	500	500	101	45.1 - 162.2
			l						
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114-6401354	, 2012				r: 12040201 la State #2				ber: 16 of 4 ldy Co., NM
Method E	Blanl	KS							
Method Blank (1)	QC B	atch: 89888							
QC Batch: 89888 Prep Batch: 76291			Date A QC Pre	nalyzed: paration:	2012-04-02 2012-04-02				d By: DA d By: DA
Parameter DRO		Flag		Cert		MDL Result <14.5		Units mg/Kg	RI 50
Surrogate	Flag	Cert	Result	Units	Diluti		Spike mount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1		100	126	52 - 140.8
Method Blank (1) QC Batch: 89908 Prep Batch: 76308	QC B	atch: 89908		nalyzed:	2012-04-0				ed By: to
QC Batch: 89908 Prep Batch: 76308	QC B			eparation:	2012-04-0 2012-04-0	2 MDL		Prepar	red By: tc
QC Batch: 89908	QC B	atch: 89908 Flag				2			red By: tc RL
QC Batch: 89908 Prep Batch: 76308 Parameter GRO Surrogate			QC Pr	eparation: Cert	2012-04-0	2 MDL Result	Spike	Prepar Units mg/Kg Percent Recovery	red By: tc RI 2 Recovery Limits
QC Batch: 89908 Prep Batch: 76308 Parameter GRO Surrogate Trifluorotoluene (TFT)	· · · · · · · · · · · · · · · · · · · ·	Flag	QC Pr	Cert <u>Result</u> 1.65	2012-04-0 Units mg/Kg	2 MDL Result 1.22 Dilution 1	Amount 2.00	Prepar Units mg/Kg Percent Recovery 82	red By: tc RL 2 Recovery Limits 78.6 - 111
QC Batch: 89908 Prep Batch: 76308 Parameter GRO	· · · · · · · · · · · · · · · · · · · ·	Flag	QC Pr	Cert 1 Result	2012-04-0	MDL Result 1.22 Dilution	Amount	Prepar Units mg/Kg Percent Recovery	red By: tc RL 2 Recovery Limits
QC Batch: 89908 Prep Batch: 76308 Parameter GRO Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene) (4-BFB)	Flag	QC Pr	Cert <u>Result</u> 1.65	2012-04-0 Units mg/Kg	2 MDL Result 1.22 Dilution 1	Amount 2.00	Prepar Units mg/Kg Percent Recovery 82	RECOVERY Recovery Limits 78.6 - 111
QC Batch: 89908 Prep Batch: 76308 Parameter GRO Surrogate Trifluorotoluene (TFT)) (4-BFB)	Flag Flag	QC Pr	Cert <u>Result</u> 1.65	2012-04-0 Units mg/Kg	2 MDL Result 1.22 Dilution 1 1	Amount 2.00	Prepar Units mg/Kg Percent Recovery 82 76 Analyz	red By: tc RL 2 Recovery Limits 78.6 - 111
QC Batch: 89908 Prep Batch: 76308 Parameter GRO Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene Method Blank (1) QC Batch: 89939) (4-BFB)	Flag Flag	QC Pr	Cert 1 Result 1.65 1.53 nalyzed:	2012-04-0 Units mg/Kg mg/Kg 2012-04-0	2 MDL Result 1.22 Dilution 1 1	Amount 2.00	Prepar Units mg/Kg Percent Recovery 82 76 Analyz	red By: tc RI 2 Recovery Limits 78.6 - 111 55 - 100

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114-6401354	,2012		/	Work Orde COG/Mesi				•	nber:-17 of 43 Eddy Co., NM
Surrogate		Flag	; Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT))			1.58	mg/Kg	1	2.00	79	78.6 - 111
4-Bromofluorobenzene	(4-BFB)		<u> </u>	1.44	mg/Kg	1	2.00	72	55 - 100
Method Blank (1)	QC Bat	tch: 89940							
QC Batch: 89940				Analyzed:	2012-04	-03		Anal	yzed By: tc
Prep Batch: 76335			QC P	reparation:	2012-04	-03			ared By: tc
						MDI			
Parameter		Fla	ø	Cert		MDL Result		Units	\mathbf{RL}
Benzene		. IO	<u>с</u>	1		<0.00470		mg/Kg	0.02
Toluene				1		< 0.00980		mg/Kg	0.02
Ethylbenzene				1		< 0.00500		mg/Kg	0.02
Xylene				ı		< 0.0170)	mg/Kg	0.02
							G., 1.,	D	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Limits
Trifluorotoluene (TFT)		1 105		1.59	mg/Kg	1	2.00	80	78 - 123.6
4-Bromofluorobenzene				1.53	mg/Kg	1	2.00	76	55.9 - 112.4
Method Blank (1) QC-Batch:	QC Bat	ch: 89977		nalyzed:					ed By: DA ed By: DA
an men genand and an	angala a sa angalan sa ng katang k	n and a scale spectromonological sector of		ngunus, suura anta, nugar, suura a. a. 1914 (Who when an end of the set of	MDL	Der Sternen i de bei de militari etter som som som		e a angujer angus angus angus angu
Parameter		Flag		Cert		Result		Units	RL
DRO				1		<14.5		mg/Kg	50
Surrogate	Flag	Cert	Result	Units	Dilu	tion A	Spike Imount	Percent Recovery	Recovery Limits
n-Tricosane			93.6	mg/Kg]	l	100	94	52 - 140.8
Method Blank (1)	OC Bat	ch: 89994							

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Report Date: April 11, 114-6401354	2012		Work Orde COG/Mesi				•	nber: 18 of 43 Eddy Co., NM
Parameter	Flag		Cert		MDL Result		Units	RL
GRO			1		1.74		mg/Kg	2
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.15	mg/Kg	1	2.00	108	78.6 - 111
4-Bromofluorobenzene ((4-BFB)		1.95	mg/Kg	1	2.00	98	55 - 100
Method Blank (1) QC Batch: 89995 Prep Batch: 76371	QC Batch: 89995		Analyzed: reparation:	2012-04 2012-04				vzed By: tc ared By: tc
			a .		MDL		TT '/	DI
Parameter Benzene	Flag	<u> </u>	Cert		Result <0.00470		Units mg/Kg	RL 0.02
Toluene			1		< 0.00470		mg/Kg	0.02
Ethylbenzene			1		<0.00500		mg/Kg	0.02
Xylene			1		< 0.0170		mg/Kg	0.02
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	78 - 123.6
4-Bromofluorobenzene ((4-BFB)		2.06	mg/Kg	1	2.00	103	55.9 - 112.4
		<u>.</u> .		ма ма ма 1943 година — Ма	,001. 1	· · · · · · · · · · · · · · · · · · ·		
Method Blank (1)	QC Batch: 90014							
QC Batch: 90014		Date A	nalyzed:	2012-04-0)5		Analyz	ed By: DA
Prep Batch: 76385			eparation:		05			ed By: DA
Parameter	Flag		Cert		MDL Result		Units	\mathbf{RL}
DRO			1	· · · ·	<14.5		mg/Kg	50
						Spike	Percent	Recovery
Surrogate	Flag Cert	Result	Units	Dilu		mount	Recovery	Limits

Report-Date: April-11, 2012			Iesilla State				nber: 19 of 43 Eddy Co., NM
Method Blank (1) QC Batch	h: 90033						
QC Batch: 90033		Date Analyz	ed: 2012-04	4-05		Anal	yzed By: tc
Prep Batch: 76405		QC Preparat		4-05		Prep	ared By: tc
	İ			MDL			
Parameter	Flag	C	ert	Result		Units	\mathbf{RL}
Benzene			1	< 0.00470		mg/Kg	0.02
Toluene			1	< 0.00980		mg/Kg	0.02
Ethylbenzene	, I		1	< 0.00500		mg/Kg	0.02
Xylene			1	< 0.0170		mg/Kg	0.02
Surrogate	Flag	Cert Resu	lt Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	L'IAS	<u>1.9</u>		1	2.00	<u>98</u>	78 - 123.6
4-Bromofluorobenzene (4-BFB)		1.9		1	2.00	95	55.9 - 112.4
Method Blank (1) QC Batcl QC Batch: 90034	h: 90034	Date Analyz					yzed By: tc
QC Batch: 90034	h: 90034	Date Analyz QC Preparat		1-05			yzed By: tc ared By: tc
QC Batch: 90034 Prep Batch: 76405		QC Preparat	ion: 2012-04	1-05 MDL		Prepa	ared By: tc
QC Batch: 90034 Prep Batch: 76405 Parameter	h: 90034 Flag		ion: 2012-04 rt	1-05			
QC Batch: 90034 Prep Batch: 76405 Parameter		QC Preparat	ion: 2012-04 rt	4-05 MDL Result	Snike	Prepa Units mg/Kg	ared By: tc RL 2
QC Batch: 90034 Prep Batch: 76405 Parameter GRO	Flag	QC Preparat	ion: 2012-04 rt	1-05 MDL Result 1.78	Spike	Prepa Units mg/Kg Percent	ared By: tc RL 2 Recovery
QC Batch: 90034 Prep Batch: 76405 Parameter GRO		QC Preparat Ce	ion: 2012-04 rt 	1-05 MDL Result 1.78	_	Prepa Units mg/Kg Percent	ared By: tc RL 2 Recovery
QC Batch: 90034 Prep Batch: 76405 Parameter GRO Surrogate Trifluorotoluene (TFT)	Flag	QC Preparat Ce CertResu	ion: 2012-04 rt 	4-05 MDL Result 1.78 Dilution	Amount	Prepa Units mg/Kg Percent Recovery	ared By: tc RL 2 Recovery Limits
QC Batch: 90034 Prep Batch: 76405 Parameter GRO Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	Flag Flag	QC Preparat Ce CertResu	ion: 2012-04 rt 	4-05 MDL Result 1.78 Dilution	<u>Amount</u> 2.00	Prepa Units mg/Kg Percent Recovery 100	RL RL 2 Recovery Limits 78.6 - 111
QC Batch: 90034 Prep Batch: 76405 Parameter GRO Surrogate Trifluorotoluene (TFT) I-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch	Flag Flag	QC Preparat	ion: 2012-04 rt Units 99 mg/Kg 81 mg/Kg	4-05 MDL Result 1.78 Dilution 1 1	<u>Amount</u> 2.00	Prepa Units mg/Kg Percent Recovery 100 90	RL 2 Recovery Limits 78.6 - 111 55 - 100
QC Batch: 90034 Prep Batch: 76405 Parameter GRO Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	Flag Flag	QC Preparat Ce CertResu	ion: 2012-04 rt <u>ut Units</u> 99 mg/Kg 81 mg/Kg d: 2012-04	4-05 MDL Result 1.78 	<u>Amount</u> 2.00	Prepa Units mg/Kg Percent Recovery 100 90	Recovery Limits 78.6 - 111 55 - 100
QC Batch: 90034 Prep Batch: 76405 Parameter GRO Surrogate Trifluorotoluene (TFT) I-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch QC Batch: 90054	Flag Flag	QC Preparat	ion: 2012-04 rt <u>ut Units</u> 99 mg/Kg 81 mg/Kg d: 2012-04	4-05 MDL Result 1.78 Dilution 1 1 1 -08 -04	<u>Amount</u> 2.00	Prepa Units mg/Kg Percent Recovery 100 90	Recovery Limits 78.6 - 111 55 - 100
QC Batch: 90034 Prep Batch: 76405 Parameter GRO Surrogate Trifluorotoluene (TFT) I-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch QC Batch: 90054	Flag Flag	QC Preparat	ion: 2012-04 rt <u>Units</u> 99 mg/Kg 81 mg/Kg d: 2012-04 on: 2012-04	4-05 MDL Result 1.78 	<u>Amount</u> 2.00	Prepa Units mg/Kg Percent Recovery 100 90	Recovery Limits 78.6 - 111 55 - 100

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114-6401354	1			er: 120402 illa State ;				nber: 20 of 4 Eddy Co., NI
Method Blank (1) QC Bat	ch: 90067							
QC Batch: 90067		Date A	nalyzed:	2012-04	-06		Analyz	ed By: AG
Prep Batch: 76426		QC Pr	eparation:	2012-04-	-06			ed By: tc
	:				MDL			
Parameter	Flag		Cert		Result		Units	RI
Benzene			1		< 0.00470		mg/Kg	0.0
Toluene			1		<0.00980		mg/Kg	0.0
Ethylbenzene	ļ		1		< 0.00500		mg/Kg	0.0
Xylene	 		1		< 0.0170		mg/Kg	0.0
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.01	mg/Kg	1	2.00	100	78 - 123.6
	1							
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	55.9 - 112.
	ch: 90068		1.96 nalyzed: eparation:	2012-04-	06	2.00	Analyz	55.9 - 112. ed By: AG ed By: tc
Method Blank (1) QC Bate QC Batch: 90068	ch: 90068		nalyzed:	2012-04-	06 06	2.00	Analyz	ed By: AG
Method Blank (1) QC Bate QC Batch: 90068	ch: 90068 Flag		nalyzed:	2012-04-	06	2.00	Analyz	ed By: AG
Method Blank (1) QC Bate QC Batch: 90068 Prep Batch: 76426	:		nalyzed: eparation:	2012-04-	06 06 MDL	2.00	Analyz Prepar	ed By: AG ed By: tc
Method Blank (1) QC Bate QC Batch: 90068 Prep Batch: 76426 Parameter GRO	Flag	QC Pro	nalyzed: eparation: Cert	2012-04- 2012-04-	06 06 MDL Result	Spike	Analyz Prepar Units mg/Kg Percent	ed By: AG ed By: tc RJ
Method Blank (1) QC Bate QC Batch: 90068 Prep Batch: 76426 Parameter	:	QC Pro	nalyzed: eparation: Cert	2012-04- 2012-04-	06 06 MDL Result 1.52	Spike	Analyz Prepar Units mg/Kg Percent	ed By: AG ed By: tc RI 2 Recovery

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-Report Date: April 11, 2012 114-6401354 Work Order: 12040201 COG/Mesilla State #2

Laboratory Control Spikes

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Laboratory Control Spike (LCS-1)

	QC Batch: 89888 Prep Batch: 76291				e Analyze Preparat		12-04-02 12-04-02			v	zed By ared By	
					LCS			Spike		atrix		Rec.
	Param		F	C	Result	Units		Amount		esult Rec.		Limit
	DRO			1	246	mg/K	g 1	250	<	14.5 98	62	- 128.3
	Percent recovery is based on the	spike	rest	ılt: RPI) is based	on the	spike and	spike dupl	icate re	esult.		
				LCSD	I		Spike	Matrix		Rec.		RPD
	Param	F	С	Result		Dil.	Amount		Rec.	Limit	RPD	Limit
	DRO		1	245	mg/Kg	g 1	250	<14.5	98	62 - 128.3	0	20
	Percent recovery is based on the	spike	rest	ilt. RPI			spike and	spike dupl	icate re	esult.		
		LC	s	LCS	D			Spike	LCS	LCSD	I	Rec.
	Surrogate	Resu		Resu		nits	Dil.	Amount	Rec.	Rec.	L	imit
	n-Tricosane	116	3	109	mg	/Kg	1	100	116	109	58.6	- 149.6
• . • . •	QC Batch: 89908 -Prep Batch: 76308				te Analyz		012-04-03					v: tc
	e e e e e e e e e e e e e e e e e e e				LCS		012-04-02	Spike		trix	pared B	lec
	Param		F	C 1	LCS Result	Units	Dil.	Spike Amount	Res	trix sult Rec.	pared B	y: tc lec.
	Param GRO		F	C]	LCS		Dil.	Spike		trix sult Rec.	pared B	y: tc
,				1	LCS Result 18.9	Units mg/Kg	Dil.	Spike Amount 20.0	Res <1	trix ult Rec. .22 94	pared B	y: tc lec.
,	GRO			1	LCS Result 18.9	Units mg/Kg	Dil. 1 spike and	Spike Amount 20.0	Res <1	trix nult Rec. .22 94 sult.	pared B	y: tc lec.
,	GRO Percent recovery is based on the Param			ı ılt. RPI	LCS Result 18.9	Units mg/Kg	Dil.	Spike Amount 20.0 spike dupli Matrix	Res <1 icate re Rec.	trix sult Rec. .22 94 sult. Rec. Limit	pared B	y: tc lec. imit - 105.7
	GRO Percent recovery is based on the	spike	resi	ı ılt. RPI LCSD	LCS Result 18.9 D is based	Units mg/Kg on the Dil.	Dil. 1 spike and Spike	Spike Amount 20.0 spike dupli Matrix	Res <1 icate re Rec.	trix nult Rec. .22 94 sult. Rec.	bared B	y: tc lec. - 105.7 RPD
	GRO Percent recovery is based on the Param	spike F	resu C	ı llt. RPI LCSD Result 19.2	LCS Result 18.9 D is based Units mg/Kg	Units mg/Kg on the Dil. 1	Dil. 1 spike and Spike Amount 20.0	Spike Amount 20.0 spike dupli Matrix Result <1.22	Res <1 icate re Rec. 96	trix 22 94 sult. Rec. Limit 68.3 - 105.7	Pared B I 68.3 RPD	y: tc kec. imit - 105.7 RPD Limit
,	GRO Percent recovery is based on the Param GRO Percent recovery is based on the	spike F	resu C	ilt RPI LCSD Result 19.2 ilt RPI	LCS Result 18.9 D is based Units mg/Kg D is based CS LC	Units mg/Kg on the Dil. 1 on the SD	Dil. 1 spike and Spike Amount 20.0 spike and	Spike Amount 20.0 spike dupli Matrix Result <1.22 spike dupli Spik	Res <pre></pre>	trix 22 94 sult. Rec. Limit 68.3 - 105.7 sult. CS LCSD	Pared B I L 68.3 RPD 2 F	y: tc imit - 105.7 RPD Limit 20 Rec.
	GRO Percent recovery is based on the Param GRO Percent recovery is based on the Surrogate	spike F	resu C	ilt RPI LCSD Result 19.2 ilt RPI LC Res	LCS Result 18.9 D is based Units mg/Kg D is based CS LC ult Res	Units mg/Kg on the Dil. 1 on the SD ult	Dil. 1 spike and Spike Amount 20.0 spike and Jnits D	Spike Amount 20.0 spike dupli Matrix Result <1.22 spike dupli Spik bil. Amou	Res <1 icate re Rec. 96 icate re icate re te I unt F	trix 22 94 sult. Rec. Limit 68.3 - 105.7 sult. CS LCSD Rec. Rec.	Pared B I L 68.3 RPD 2 F L	y: tc imit - 105.7 RPD Limit 20 kec.
	GRO Percent recovery is based on the Param GRO Percent recovery is based on the	spike F	resu C	ilt RPI LCSD Result 19.2 ilt RPI	LCS Result 18.9 D is based Units mg/Kg D is based CS LC ult Res D1 2.0	Units mg/Kg on the Dil. 1 on the SD ult U	Dil. 1 spike and Spike Amount 20.0 spike and Juits D g/Kg	Spike Amount 20.0 spike dupli Matrix Result <1.22 spike dupli Spik Oil. Amou	Res <1 icate re Rec. 96 icate re re I unt F	trix 22 94 sult. Rec. Limit 68.3 - 105.7 sult. CS LCSD	Pared B IL 68.3 RPD 2 F L 80 -	y: tc imit - 105.7 RPD Limit 20 Rec.

					State #2						b., NN
Laboratory Control Spike	e (LCS-1)										
QC Batch: 89939 Prep Batch: 76335			Date Analy QC Prepara		2012-04-03 2012-04-03					lyzed E bared B	
Param	F	Ċ	LCS Result	Units	Dil.	Spike Amount		trix sult	Rec.		lec. imit
GRO	£`		15.9	mg/Kg		20.0			80		- 105.1
Percent recovery is based on	the snike res	nult R									
Percent recovery is based on	the shire res			a on me	-		icate n				
Param	FC	LCS Resu		Dil.	Spike Amount	Matrix Result	Rec.	Re Lir		RPD	RPD Limi
GRO	<u> </u>	16.			20.0	<1.22	84 Rec.	68.3 -		<u>6</u>	20
Percent recovery is based on									100.,	v	
I Electio recovery to paser on	one spine rot	i			spine and						
				CSD		Spil		LCS	LCSD		Rec.
			- •. • •		Units I	Dil. Amo	unt l	Rec.	Rec.		imit
Surrogate											
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike	nan •• • • • • • • • • • • • • • • • • •	ļ	1.97 1.	.68 m		1 2.0 1 2.0	0	98 90	84 78	80 -	111.2
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940	nan •• • • • • • • • • • • • • • • • • •		1.97 1. 1.81 1. Date Analy	.68 m .57 m	ng/Kg ng/Kg 2012-04-03	1 2.0 1 2.0	0	98	84 78 Ana	80 - 66.4 lyzed B	- 111.2 - 106.0
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike	nan •• • • • • • • • • • • • • • • • • •		1.97 1. 1.81 1.	.68 m .57 m	ng/Kg ng/Kg	1 2.0 1 2.0	0	98	84 78 Ana	80 - 66.4	- 111.2 - 106.0
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940	nan •• • • • • • • • • • • • • • • • • •		1.97 1. 1.81 1. Date Analy	.68 m .57 m	ng/Kg ng/Kg 2012-04-03	1 2.0 1 2.0	0	98 90	84 78 Ana	80 - 66.4 lyzed B bared B	y: tc y: tc y: tc kec.
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param	nan •• • • • • • • • • • • • • • • • • •	C	1.97 1. 1.81 1. Date Analy QC Prepara LCS Result	.68 m .57 m zed: 2 ation: 2 Units	ng/Kg ng/Kg 2012-04-03 2012-04-03 2012-04-03	1 2.0 1 2.0 Spike Amount	0 0 Mat	98 90 	84 78 Ana Prep 	80 - 66.4 lyzed B bared B	111.2 - 106.0 y: tc y: tc lec. imit
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene	nan •• • • • • • • • • • • • • • • • • •		1.97 1. 1.81 1. Date Analy QC Prepara LCS <u>Result</u> 2.20	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg	ng/Kg ng/Kg 2012-04-03 2012-04-03 	1 2.0 1 2.0 Spike Amount 2.00	0 0 	98 90 	84 78 Ana Prep 	80 - 66.4 lyzed E bared B F L 86.5	111.2 - 106.0 y: tc y: tc kec. imit - 124.9
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene	nan •• • • • • • • • • • • • • • • • • •	C	1.97 1. 1.81 1. Date Analy QC Prepara LCS <u>Result</u> 2.20 2.18	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg mg/Kg	ng/Kg ng/Kg 2012-04-03 2012-04-03 2012-04-03	1 2.0 1 2.0 Spike Amount 2.00 2.00	0 0 Res <0.00 <0.00	98 90 erix ult 0470 0980	84 78 Ana Prep 	80 - 66.4 lyzed E bared B F L 86.5 84.7	111.2 - 106.0 y: tc y: tc kec. imit - 124.5 - 122.5
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene	nan •• • • • • • • • • • • • • • • • • •		1.97 1. 1.81 1. Date Analy QC Prepara LCS <u>Result</u> 2.20 2.18 2.17	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg mg/Kg	ng/Kg ng/Kg 2012-04-03 2012-04-03 	1 2.0 1 2.0 Spike <u>Amount</u> 2.00 2.00 2.00	0 0 Res <0.00 <0.00	98 90 srix ult 0470 0980 0500	84 78 Ana Prep 	80 - 66.4 lyzed B bared B F L 86.5 84.7 79.4	111.2 - 106.6 y: tc y: tc imit
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene	e (LCS-1) F		1.97 1. 1.81 1. Date Analy QC Prepara LCS <u>Result</u> 2.20 2.18 2.17 6.49	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg mg/Kg mg/Kg	ng/Kg ng/Kg 2012-04-03 2012-04-03 1 1 1 1	1 2.0 1 2.0 Spike <u>Amount</u> 2.00 2.00 2.00 6.00	0 0 	98 90 srix ult 0470 0980 0500 0170	84 78 Ana Prep 	80 - 66.4 lyzed B bared B F L 86.5 84.7 79.4	111.2 - 106.0 y: tc y: tc kec. imit - 124.5 - 122.5
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene	e (LCS-1) F	C 1 1 1 sult R	1.97 1. 1.81 1. 1.81 1. Date Analy QC Prepara LCS Result	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg mg/Kg mg/Kg	ng/Kg ng/Kg 2012-04-03 2012-04-03 1 1 1 	1 2.0 1 2.0 Spike Amount 2.00 2.00 2.00 6.00 spike dupl	0 0 	98 90 90 ult 0470 0980 0500 0170 esult.	84 78 Ana Prep 	80 - 66.4 lyzed B bared B F L 86.5 84.7 79.4	111.2 - 106.6 y: tc y: tc imit
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on	e (LCS-1)	C 1 1 sult R LCSI	1.971.1.811.1.811.1.811.1.811.QC PreparaLCSResult2.202.182.176.49PD is basedD	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg mg/Kg mg/Kg d on the	ng/Kg ng/Kg 2012-04-03 2012-04-03 1 1 1 	1 2.0 1 2.0 Spike Amount 2.00 2.00 2.00 6.00 spike dupl Matrix	Mat Res <0.00 <0.00 <0.00 icate re	98 90 90 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	84 78 Ana Prep <u></u>	80 - 66.4 lyzed E bared B F L 86.5 84.7 79.4 79.5	111.2 - 106.0 y: tc y: tc imit - 124.9 - 118.9 - 118.9 RPD
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on Param	e (LCS-1) F the spike res F C	C 1 1 sult R LCSI Resu	1.971.1.811.1.811.1.811.1.811.QC PreparaLCSResult2.202.182.176.49PD is basedDltUnits	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg mg/Kg mg/Kg d on the Dil.	ng/Kg ng/Kg 2012-04-03 2012-04-03 2012-04-03 1 1 1 1 1 1 1 5 yike and Spike Amount	1 2.0 1 2.0 Spike	0 0 0 8 8 8 8 8 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0 0 0 0	98 90 90 01170 980 980 980 980 980 980 980 980 980 98	84 78 Ana Prep <u>Rec.</u> 110 109 -108 108 ec. mit	80 - 66.4 lyzed E bared B F L 86.5 84.7 79.4 79.5 RPD	111.2 - 106. y: to y: to x: to 2 122. - 118.9 - 118.9 - 118.9 RPE Limi
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF) Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on Param Benzene	e (LCS-1) F the spike res F C 1	C 1 1 sult R LCSI Resu 2,17	1.971.1.811.1.811.1.811.1.811.2.02.182.176.49.PD is basedD1tUnits7mg/Kg	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg mg/Kg mg/Kg d on the <u>Dil.</u>	ng/Kg ng/Kg 2012-04-03 2012-04-03 2012-04-03 2012-04-03 1 1 1 1 1 1 1 1 1 2 1 3 5 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 9 1	1 2.0 1 2.0 Spike	0 0 0 Mat 	98 90 90 01 0470 0980 0500 0500 0500 0500 0500 0500 050	84 78 Ana Prep <u>-Rec.</u> 110 109 -108 - 108 - 108 - 108 - 108 - 108	80 - 66.4 lyzed E bared B F L 86.5 84.7 79.4 79.5 RPD 1	111.2 - 106. y: to y: to y: to 2.122. - 118.9 - 118.9 - 118.9 RPI Limi 20
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on	e (LCS-1) F the spike res F C	C 1 1 sult R LCSI Resu	1.97 1. 1.81 1. 1.81 1. Date Analy QC Prepara LCS Result 2.20 2.18 2.17 6.49 .PD is based D lt Units mg/Kg mg/Kg	.68 m .57 m zed: 2 ation: 2 <u>Units</u> mg/Kg mg/Kg mg/Kg d on the <u>Dil. 4</u> 1 1	ng/Kg ng/Kg 2012-04-03 2012-04-03 2012-04-03 2012-04-03 1 1 1 1 1 1 1 1 1 2 1 1 1 2 1 2 1 2 2 2 0 2.00	1 2.0 1 2.0 Spike	0 0 0 8 8 8 8 8 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0.00 9 0 0 0 0	98 90 90 01 04 05 00 05 00 05 00 05 00 05 00 05 00 05 00 05 00 05 00 05 00 05 00 05 00 05 00 0 80 0 0 0	84 78 Ana Prep 	80 - 66.4 lyzed E bared B F L 86.5 84.7 79.4 79.5 RPD 1 0	111.2 - 106. y: to y: to x: - 122. - 122. - 118.9 - 118.9 - 118.9 RPI Limi 20 20
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on Param Benzene	e (LCS-1) F the spike res F C 1 1		1.97 1. 1.81 1. 1.81 1. Date Analy QC Prepara LCS Result 2.20 2.18 2.17 6.49	.68 m .57 m .57 m zed: 2 ation: 2 	ng/Kg ng/Kg 2012-04-03 2012-04-03 2012-04-03 2012-04-03 1 1 1 1 1 1 1 1 1 2 1 3 5 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 9 1	1 2.0 1 2.0 Spike	0 0 Mat Res <0.00 <0.00 <0.00 icate re Rec. 108 108	98 90 90 90 90 90 90 90 90 90 90 90 90 90	84 78 Ana Prep <u>-Rec.</u> 110 109 -108 - 108 - 108 - 108 - 108 - 108	80 - 66.4 lyzed E bared B F L 86.5 84.7 79.4 79.5 RPD 1	111.2 - 106.0 y: tc y: tc imit - 122.9 - 118.9 - 118.9 RPD Limi 20
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF Laboratory Control Spike QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on Param Benzene Toluene Ethylbenzene Toluene Ethylbenzene Toluene Ethylbenzene	e (LCS-1) <u>F</u> the spike res <u>F</u> <u>F</u> 1 1 1 1	LCSI Resu 2.17 2.16 6.42	1.97 1. 1.81 1. 1.81 1. Date Analy QC Prepara LCS Result 2.20 2.18 2.17 6.49 PD is based D lt Units mg/Kg mg/Kg mg/Kg mg/Kg	.68 m .57 m .57 m .57 m .2 ation: 2 units_ mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg d on the Dil. 1 1 1 1 1	ng/Kg ng/Kg 2012-04-03 2012-04-03 2012-04-03 2012-04-03 1 1 1 1 1 1 200 2.00 2.00 2.00 6.00	1 2.0 1 2.0 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 3.00 3.00 <0.00930	0 0 0 Mat Res <0.00 <0.00 <0.00 <0.00 icate re 108 108 108 108	98 90 90 90 90 90 90 90 90 980 980 980 9	84 78 Ana Prep 	80 - 66.4 lyzed E bared B F L 86.5 84.7 79.4 79.5 RPD 1 0 0	111.2 - 106. y: tc y: tc imit - 124.9 - 122.9 - 118.9 - 118.9 - 118.9 - 118.9 - 118.9 - 20 20 20

114-6401354			COG/Mesi	lla State #	<u></u>				Eddy Co	o., N.
control spikes continued		_				_				
Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Re	ec. nit
Sunogate	, . <u></u>			Units		Amount	nec.	1.000.		1110
0		LCS	LCSD		D 'I	Spike	LCS	LCSD	Re	
Surrogate Trifluorotoluene (TFT)		Result	Result 1.83	Units mg/Kg	1	A.mount 2.00	Rec. 76	Rec. 92	Lir 73.9	
4-Bromofluorobenzene (4-Bl	FB)	1.47	1.80	mg/Kg	1	2.00	74	90	70.4 -	
Laboratory Control Spik QC Batch: 89977 Prep Batch: 76359	æ (LCS-1)		Analyzed: reparation:	2012-04- 2012-04-					zed By: red By:	
			CS			Spike	Matrix		R	lec.
Param	F					Amount	Result	Rec.		imit
DRO		1 2	232 mg	g/Kg	1	250	<14.5	93	62 -	128.
Percent recovery is based on	the spike re		s based on	-	-	-		Rec.		R.PI
Param DRO	F C	LCSD Result 206	Units I mg/Kg	Spi Dil. Amo 1 25	ke unt 0	Matrix Result R <14.5	tec. I 82 62	Rec. Jimit - 128.3		RPI Limi 20
Param	F C	LCSD Result 206	Units I mg/Kg	Spi Dil. Amo 1 25	ke ount 0 and spi	Matrix Result R <14.5 ike duplica	tec. I 82 62 te result.	imit	RPD	Limi 20
Param DRO Percent recovery is based on Surrogate	F C	LCSD Result 206 sult. RPD i LCSD Result	Units I mg/Kg s based on Units	Spi Dil. Amo 1 25 the spike a Dil.	ke ount 0 and spi Sj Am	Matrix Result R <14.5 ike duplica pike 1 nount 1	tec. I 82 62 te result. LCS Rec.	- 128.3 - LCSD Rec.	RPD 12 Re Lir	Limi 20 ec. nit
								93	62 -	12
Param DRO Percent recovery is based on Surrogate n-Tricosane	F C 1 the spike res LCS Result 104	LCSD Result 206 sult. RPD i LCSD	Units I mg/Kg s based on	Spi Dil. Amo 1 25 the spike a Dil.	ke ount 0 and spi Sj Am	Matrix Result R <14.5 ike duplica pike 1 nount 1	tec. I 82 62 te result. LCS	- 128.3 LCSD	RPD 12 Re	Lim 20 ec. nit 149
Param DRO Percent recovery is based on Surrogate n-Tricosane	F C 1 the spike res LCS Result 104	LCSD Result 206 sult RPD i LCSD Result 98.0	Units I mg/Kg s based on Units	Spi Dil. Amo 1 25 the spike a Dil. 1 2012-04-	ke ount and spi Am 1 -04	Matrix Result R <14.5 ike duplica pike 1 nount 1	tec. I 82 62 te result. LCS Rec.	.imit - 128.3 LCSD Rec. 98 Anal	RPD 12 Re Lir 58.6 -	Lim 20 ec. nit 149.
Param DRO Percent recovery is based on Surrogate n-Tricosane Laboratory Control Spik QC Batch: 89994 Prep Batch: 76371	F C 1 the spike res LCS Result 104 re (LCS-1)	LCSD Result 206 sult RPD i LCSD Result 98.0 Date QC F	Units I mg/Kg s based on Units mg/Kg Analyzed: reparation: CS	Spi Dil. Amo 1 25 the spike a Dil. 1 2012-04 2012-04	ke 0 and spi Am 1 -04 -04	Matrix Result F <14.5 ike duplica pike 1 hount 1 100 Spike	tec. I 82 62 te result. LCS Rec. 104 Matrix	Limit - 128.3 LCSD Rec. 98 Anal Prep	RPD 12 Re Lir 58.6 -	Limi 20 ec. nit 149. : tc : tc : tc
Param DRO Percent recovery is based on Surrogate n-Tricosane Laboratory Control Spik QC Batch: 89994 Prep Batch: 76371	F C 1 the spike res LCS Result 104	LCSD Result 206 sult. RPD i LCSD Result 98.0 Date QC P	Units I mg/Kg s based on Units mg/Kg Analyzed: reparation: CS sult Un	Spi Dil. Amo 1 25 the spike a Dil. 1 2012-04 2012-04 2012-04	ke 1 ount and spi Sg Am 1 -04 -04 -04	Matrix Result F <14.5 ike duplica pike 1 hount 1	tec. I 82 62 te result. LCS Rec. 104	.imit - 128.3 LCSD Rec. 98 Anal	RPD 12 Re Lir 58.6 -	Limi 20 ec. nit 149. : tc : tc : tc
Param DRO Percent recovery is based on Surrogate n-Tricosane Laboratory Control Spik QC Batch: 89994 Prep Batch: 76371 Param GRO	F C 1 the spike res LCS Result 104 e (LCS-1) F	LCSD Result 206 sult. RPD i LCSD Result 98.0 Date QC F LC C Res 1 17	Units I mg/Kg s based on Units mg/Kg Analyzed: reparation: CS sult Un .2 mg/	Spi Dil. Amo 1 25 the spike a Dil. 1 2012-04 2012-04 its Dil /Kg 1	ke 1 ount 0 And spi Am 1 -04 -04 -04	Matrix Result F <14.5 ike duplica pike 1 nount 1 100 Spike amount 20.0	tec. I 82 62 te result. LCS Rec. 104 Matrix Result <1.22	imit - 128.3 LCSD Rec. 98 Anal Prep Rec.	RPD 12 Re Lir 58.6 - yzed By ared By Re Lin	Limi 20 ec. nit 149. : to : to ec. nit
Param DRO Percent recovery is based on Surrogate n-Tricosane Laboratory Control Spik QC Batch: 89994 Prep Batch: 76371 Param	F C 1 the spike res LCS Result 104 e (LCS-1) F	LCSD Result 206 sult! RPD i LCSD Result 98.0 Date QC F LC C Res 1 17 sult. RPD i	Units I mg/Kg s based on Units mg/Kg Analyzed: reparation: CS sult Un .2 mg/	Spi Dil. Amo 1 25 the spike a Dil. 1 2012-04- 2012-04- 2012-04- its Dil /Kg 1 the spike a	ke ount and spi Si Am 1 -04 -04 -04 -04 -04 -04 -04 -04 -04	Matrix Result F <14.5 ike duplica pike 1 hount 1 100 Spike amount 20.0 ike duplica	tec. I 82 62 te result. LCS Rec. 104 Matrix Result <1.22 te result.	Limit - 128.3 LCSD Rec. 98 Anal Prep Rec. 86	RPD 12 Re Lir 58.6 -	Limi 20 ec. nit 149. : tc : tc ec. nit 105.
Param DRO Percent recovery is based on Surrogate n-Tricosane Laboratory Control Spik QC Batch: 89994 Prep Batch: 76371 Param GRO	F C 1 the spike res LCS Result 104 e (LCS-1) F	LCSD Result 206 sult. RPD i LCSD Result 98.0 Date QC F LC C Res 1 17	Units I mg/Kg s based on Units mg/Kg Analyzed: reparation: CS sult Un .2 mg/	Spi Dil. Amo 1 25 the spike a Dil. 1 2012-04 2012-04 its Dil /Kg 1 the spike a Spike	ke 1 ount 0 And spi Am 1 -04 -04 -04 -04 L. A -04 -04 -04 -04 -04 -04 -04 -04 -04 -04	Matrix Result F <14.5 ike duplica pike 1 nount 1 100 Spike amount 20.0	tec. I 82 62 te result. LCS Rec. 104 Matrix Result <1.22 te result.	imit - 128.3 LCSD Rec. 98 Anal Prep Rec.	RPD 12 Re Lir 58.6 - yzed By ared By Re Lim 68.3 -	Limi 20 ec. nit 149. : tc : tc : tc

Report Date: April 11, 2012 114-6401354				Order:-1 Mesilla S						mber: 24 of Eddy Co., 1
Percent recovery is based on the s	pike res	ult. RP	D is base	d on the	spike ar	nd spike	e duplica	te result		
		L	CS LC	SD			Spike	LCS	LCSD	Rec.
Surrogate					Jnits	Dil.	Amoun		Rec.	Limit
Trifluorotoluene (TFT)					g/Kg	1	2.00	82	83	80 - 111
4-Bromofluorobenzene (4-BFB)			.54 1.	56 m	g/Kg	1	2.00	77	78	66.4 - 10
Laboratory Control Spike (LC	CS-1)									
QC Batch: 89995		D	ate Analy	zed: 2	012-04-0)4			Ana	lyzed By:
Prep Batch: 76371		Q	C Prepara	tion: 2	012-04-0)4			Prep	oared By:
D		t t	LCS	** •/	D'1	Spi		Matrix	P	Rec.
Param	F		Result	Units	Dil.	Amo		Result	Rec.	Limit
Benzene		1		mg/Kg	1	2.0 2.0		(0.00470)	99 99	86.5 - 124 84.7 - 125
Toluene Ethylbenzene		1		mg/Kg mg/Kg	1 1	2.0		(0.00980	99 99	79.4 - 118
•		1		mg/Kg	1	2.0 6.0		<0.0170	99 99	79.4 - 118
Xylene Percent recovery is based on the s	pike res				spike ar	nd spike	e duplica	te result	•	
Percent recovery is based on the s Param Benzene	F C	ult. RP LCSD Result 2.15	D is based Units mg/Kg	i on the Dil. 4	spike ar Spike Amount 2.00	nd spike Mat Res <0.00	e duplica srix sult R 0470 1	te result ec. 1 08 86.5	Rec. Limit 5 - 124.9	RP RPD Lin 8 20
Percent recovery is based on the s Param Benzene Toluene	FC	ult. RP LCSD Result 2.15 2.16	D is based Units mg/Kg mg/Kg	i on the Dil. 4 1 1	spike ar Spike Amount 2.00 2.00	nd spike Mat Res <0.0 <0.0	e duplica crix cult R 0470 1 0980 1	te result ec. 1 08 86.5 08 84.7	Rec. Limit 5 - 124.9 7 - 122.5	RF RPD Lin 8 20 9 20
Percent recovery is based on the s Param Benzene	F C 1	ult. RP LCSD Result 2.15	D is based Units mg/Kg	i on the Dil. 4	spike ar Spike Amount 2.00	nd spike Mat Res <0.00	e duplica trix tult R 0470 1 0980 1 0500 1	te result ec. 1 08 86.5 08 84.7 07 79.4	Rec. Limit 5 - 124.9	RP RPD Lin 8 20
Percent recovery is based on the s Param Benzene Toluene Ethylbenzene	F C 1 1 1	ult. RP LCSD Result 2.15 2.16 2.14 6.42 ult. RP	D is based Units mg/Kg mg/Kg mg/Kg	i on the Dil. 4 1 1 1 1	spike an Spike Amount 2.00 2.00 2.00 6.00	nd spike Mat Res <0.00 <0.00 <0.00 <0.00 <0.00	e duplica trix tult R 0470 1 0980 1 0500 1 0170 1	te result ec. 1 08 86.5 08 84.7 07 79.4 07 79.5	Rec. Limit 5 - 124.9 7 - 122.5 4 - 118.9 5 - 118.9	RF RPD Lin 8 20 9 20 8 20
Percent recovery is based on the s Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s	F C 1 1 1	ult. RP LCSD Result 2.15 2.16 2.14 6.42 ult. RP	D is based Units mg/Kg mg/Kg mg/Kg mg/Kg D is based CS LC	d on the Dil. A 1 1 1 1 d on the	spike an Spike Amount 2.00 2.00 2.00 6.00 spike an	nd spike Mat Res <0.00 <0.00 <0.00 <0.00 <0.00	e duplica crix ult R 0470 1 0980 1 0500 1 0170 1 e duplica Spike	te result ec. 1 08 86.5 08 84.7 07 79.4 07 79.5 te result. LCS	Rec. Limit 5 - 124.9 7 - 122.5 4 - 118.9 5 - 118.9 LCSD	RPD Lim 8 20 9 20 8 20 8 20 8 20 8 20 8 20
Percent recovery is based on the s Param Benzene Toluene Ethylbenzene Xylene	F C 1 1 1	ult. RP Result 2.15 2.16 2.14 6.42 ult. RP L Re	D is based Units mg/Kg mg/Kg mg/Kg D is based CS LC	d on the Dil. A 1 1 1 d on the SD sult U	spike an Spike Amount 2.00 2.00 2.00 6.00	nd spike Mat Res <0.00 <0.00 <0.00 <0.00 <0.00	e duplica orix oult R 0470 1 0980 1 0500 1 0170 1 e duplica	te result ec. 1 08 86.5 08 84.7 07 79.4 07 79.5 te result. LCS	Rec. Limit 5 - 124.9 7 - 122.5 4 - 118.9 5 - 118.9	RPD Lim 8 24 9 26 8 26 8 20
Percent recovery is based on the s Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Surrogate	F C 1 1 1 1 pike ress	ult. RP Result 2.15 2.16 2.14 6.42 ult. RP L Re	D is based Units mg/Kg mg/Kg mg/Kg D is based CS LC sult Re 75 1.	d on the Dil. A 1 1 1 d on the SD sult U 88 m	spike ar Spike Amount 2.00 2.00 6.00 spike ar	nd spike Mat Res <0.00 <0.00 <0.00 <0.00 ad spike	e duplica crix 0470 1 0980 1 0500 1 0170 1 e duplica Spike Amount	te result ec. 1 08 86.5 08 84.7 07 79.4 07 79.5 te result. LCS Rec.	Rec. Limit 5 - 124.9 7 - 122.5 4 - 118.9 5 - 118.9 LCSD Rec.	RPD Lim 8 20 9 20 8 20 8 20 8 20 8 20 8 20 8 20 8 20 8
Percent recovery is based on the s Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Surrogate Trifluorotoluene (TFT)	F C 1 1 pike ress	ult. RP Result 2.15 2.16 2.14 6.42 ult. RP L Re 1. 1. 1.	D is based Units mg/Kg mg/Kg mg/Kg D is based CS LC sult Re 75 1.	d on the Dil. A 1 1 1 1 d on the SSD Sult U 88 m 88 m	spike ar Spike Amount 2.00 2.00 6.00 spike ar Juits g/Kg	nd spike Mat Res <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 10 In 1 1 1	e duplica crix 0470 1 0980 1 0500 1 0170 1 e duplica Spike Amount 2.00	te result ec. 1 08 86.5 08 84.7 07 79.4 07 79.5 te result. LCS Rec. 	Rec. Limit 5 - 124.9 7 - 122.5 4 - 118.9 5 - 118.9 6 - 118.9 LCSD Rec. 94 94 94	RPD Lin 8 20 9 20 8 20 8 20 8 20 8 20 Rec. Limit 73.9 - 12
Percent recovery is based on the s Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (LC QC Batch: 90014	F C 1 1 pike ress	ult. RP Result 2.15 2.16 2.14 6.42 ult. RP L Re 1. 1. 1.	D is based Units mg/Kg mg/Kg mg/Kg mg/Kg D is based CS LC sult Re 75 1. 75 1.	d on the Dil. A 1 1 1 1 d on the SSD Sult U 88 m 88 m	spike ar Spike Amount 2.00 2.00 6.00 spike ar Jnits g/Kg g/Kg g/Kg	nd spike Mat Res <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.000 0.00 0.00 0.00 0.00 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.00000 0.000000	e duplica crix 0470 1 0980 1 0500 1 0170 1 e duplica Spike Amount 2.00	te result ec. 1 08 86.5 08 84.7 07 79.4 07 79.5 te result. LCS Rec. 	Rec. Limit 5 - 124.9 7 - 122.5 4 - 118.9 5 - 118.9 6 - 118.9 LCSD Rec. 94 94 94	RPD Lin 8 20 9 20 8 20 8 20 8 20 Rec. Limit 73.9 - 12 70.4 - 115 zed By: D

114-6401354			<u> </u>		/ 1010511	lla State 🗍	- 4					Eddy (
Devee	F	C	LCSD		ы. Г	Spi Dil. Amo		Matrix	Dee		lec. imit	RPD	RPI Limi
Param DRO	F		Result 236	Uni mg/l		0il. Amo 1 25		$\frac{\text{Result}}{<14.5}$	Rec. 94		128.3	1	Limi 20
Percent recovery is based on t	ho enik	1									120.0	1	20
I creent recovery is based on t	_				Ju on (nie spike i					COD	-	D
Summe meter		CS sult	LCS		Units	וית		Spike mount	LCS		CSD		Rec. Jimit
Surrogate n-Tricosane		19	Resu 120		ig/Kg	Dil1	A	100	Rec. 119		Rec. 120		- 149.
	<u> </u>		120		<u>16/115</u>	1							140.
Laboratory Control Spike	(LCS-	-1)											
QC Batch: 90033				te Anal		2012-04	-05					lyzed E	
Prep Batch: 76405			QC	Prepar	ation:	2012-04	-05				Prep	pared B	By: to
			1	LCS				Spike	Mate	rix]	Rec.
Param		F	C R	esult	Unit	s Dil.	A	mount	Resi	ılt	Rec.	L	imit
Benzene			1	2.20	mg/K	Kg 1		2.00	< 0.00	470	110	86.5	- 124.
Toluene			1	2.24	mg/K	(g 1		2.00	< 0.00		112		- 122.
Ethylbenzene			1	2.26	mg/K	Kg 1		2.00	< 0.00	500	113	79.4	- 118.
Xylene			1	6.79	mg/K	Kg 1		6.00	<0.0	170	113	79.5	- 118.
Percent recovery is based on t	he spik	e res	ult. RPI) is base	ed on t	he spike a	nd s	pike dupl	icate re	sult.			
			LCSD			Spike		Matrix		R	lec.		RPI
Param	\mathbf{F}	С	Result	Units	Dil.	-	t	Result	Rec.		mit	RPD	Limi
Benzene		1	2.27	mg/Kg	; 1	2.00		0.00470	114	86.5	- 124.9	3	20
Toluene		1	2.28	mg/Kg	1	2.00	<	0.00980	114	84.7	- 122.5	2	20
Ethylbenzene		1	2.31	mg/Kg		2.00	<	0.00500	116	79.4	- 118.9	2	20
Xylene		1	6.91	mg/Kg		6.00	<	<0.0170	115	79.5	- 118.9	2	20
Percent recovery is based on t	he spik	e res	ult. RPI			he spike a	nd s	pike dupl	icate re	sult.			
	· ·		LC	S L	CSD	1 ² - 1		Spik	te L	CS	LCSD	I	Rec.
Surrogate			Res		esult	Units	Dil			lec.	Rec.		imit
Trifluorotoluene (TFT)			1.9	8 1	.98	mg/Kg	1	2.00)	99	99	73.9	9 - 127
4-Bromofluorobenzene (4-BFE	3)		2.0		.02	mg/Kg	1			100	101		- 119.
Laboratory Control Spike QC Batch: 90034 Prep Batch: 76405	(LCS-	-1)		te Analy Prepar		2012-04- 2012-04-						lyzed E pared B	

D / D				Waala Oada		40001			Domo N		DE of A
Report Date: April 11, 2012 114-6401354			1	Work Orde COG/Mesi			· ·		Page N		Co., NI
			LC				Spike	Matri			Rec.
Param GRO]	7	$\frac{\mathbb{C}}{1}$ Res		nits /Kg	$\frac{\text{Dil.}}{1}$	Amount 20.0	Resul <1.22			.imit - 105.
Percent recovery is based on the	eniko	rocul		0,							- 100.
rescent recovery is based on the	spike			based on				ncate resu			
Param	F		LCSD Result	Units D		Spike mount	Matrix Result	Rec.	Rec. Limit	RPD	RPI Limi
GRO		1	1		1. A	20.0	<1.22		.3 - 105.7	1	20
Percent recovery is based on the	spike										
	opine	10541	ì		une op	ino una					•
Surrogate			LCS Result	$\begin{array}{c} \mathrm{LCSD} \\ \mathrm{Result} \end{array}$	Uni	ita T	Spi Dil. Amo				Rec. Jimit
Trifluorotoluene (TFT)			1.94	2.04	mg/		$\frac{1}{1}$ 2.0				- 111.2
4-Bromofluorobenzene (4-BFB)			1.82	1.93	mg/		1 2.0				- 106.0
QC Batch: 90054 Prep Batch: 76362	CS- 1	,		Analyzed: reparation:		-04-08 -04-04				yzed By ared By	
Prep Batch: 76362		-	QC Pr	eparation: CS	2012	-04-04	Spik		Prep trix	ared By	r: AR Rec.
-		, F	QC Pr	eparation: .CS esult (2012 Jnits		Spik Amou 100	nt Re	Prep trix sult R	ared By ec.	n AR
Prep Batch: 76362 Param		F	QC Pr	CS esult U 19.4 m	2012 Jnits g/Kg	-04-04 Dil. 1	Amou 1.00	int Re	Prep trix sult R .85 S	ared By ec.	Rec.
Prep Batch: 76362 Param Chloride		F	QC Pr	CS esult U 19.4 m	2012 Jnits g/Kg	-04-04 Dil. 1 ike and	Amou 100 spike dup	int Re <3 licate resu	Prep trix sult R .85 9 lt.	ared By ec.	r: AR Rec. Limit 35 - 11
Prep Batch: 76362 Param Chloride Percent recovery is based on the a		F	QC Pr	cCS esult U 9.4 m based on	2012 Jnits g/Kg	-04-04 Dil. 1	Amou 1.00 spike dup Matrix	int Re <3 licate resu	Prep trix sult R .85 S	ec.	Rec.
Prep Batch: 76362 Param Chloride	spike	F	QC Pr	cCS esult U 9.4 m based on	2012 Jnits g/Kg the sp	Dil. Dil. 1 ike and Spike	Amou 100 spike dup Matrix	nt Res <3 licate resu c c c c c c c c c c	Prep trix sult R .85 9 lt. Rec.	ared By ec.	Rec. Limit 35 - 118
Prep Batch: 76362 Param Chloride Percent recovery is based on the a Param Chloride Percent recovery is based on the a	spike F spike	F resul C resul	QC Pr	CS esult U 9.4 m based on Units mg/Kg	2012 Jnits g/Kg the sp Dil. 1	-04-04 Dil. 1 ike and Spike Amour 100	Amou 1.00 spike dup Matriz at Result <3.85	nt Re <3 licate resu c c c Rec. 107	Prep trix sult R .85 9 lt. Rec. Limit 85 - 115	ared By ec. 19	Rec. Limit 5 - 11 RPD Limit
Prep Batch: 76362 Param Chloride Param Chloride Param Chloride	spike F spike	F resul C resul	QC Pr	CS esult U 9.4 m based on Units mg/Kg	2012 Jnits g/Kg the sp Dil. 1	-04-04 Dil. 1 ike and Spike Amour 100	Amou 1.00 spike dup Matriz at Result <3.85	nt Re <3 licate resu c c c Rec. 107	Prep trix sult R .85 9 lt. Rec. Limit 85 - 115	ared By ec. 19	Rec. Limit 5 - 11 RPD Limi
Prep Batch: 76362 Param Chloride Percent recovery is based on the a Param Chloride Percent recovery is based on the a	spike F spike	F resul C resul	QC Pr I C Rd C Rd C Rd C Rd C Rd C Rd C Rd C Rd	CS esult U 9.4 m based on Units mg/Kg	2012 Jnits g/Kg the sp Dil. 1 the sp 2012	-04-04 Dil. 1 ike and Spike Amour 100	Amou 1.00 spike dup Matriz at Result <3.85	nt Re <3 licate resu c c c Rec. 107	Prep trix sult R .85 9 lt. Rec. Limit 85 - 115 lt. Analy	ared By ec. 19	: AR Rec. Limit 35 - 112 RPD Limi 20
Prep Batch: 76362 Param Chloride Percent recovery is based on the r Param Chloride Percent recovery is based on the r Laboratory Control Spike (La QC Batch: 90067	spike F spike	F resul C resul	QC Pr I C Rd C Rd C Rd C Rd C Rd C Rd C Rd C Rd	CS esult U 9.4 m based on Units mg/Kg based on	2012 Jnits g/Kg the sp Dil. 1 the sp 2012	-04-04 Dil. 1 ike and Spike Amour 100 ike and	Amou 1.00 spike dup Matriz at Result <3.85	nt Re <3 licate resu c c c Rec. 107	Prep trix sult R .85 9 lt. Rec. Limit 85 - 115 lt. Analy Prep	ec. 99 RPD 7	Rec. Limit 35 - 118 RPD Limit 20
Prep Batch: 76362 Param Chloride Percent recovery is based on the standard chloride Param Chloride Percent recovery is based on the standard chloride Percent recovery is based on the standard chloride QC Batch: 90067 Prep Batch: 76426 Param	spike F spike	F resul resul	QC Pr I C Ra C Ra LCSD Result 107 t. RPD is Date A QC Pr LCS C Resu	eparation: CS esult U 9.4 m based on Units mg/Kg based on Analyzed: eparation: S ut Unit	2012 Jnits g/Kg the sp Dil. 1 the sp 2012 2012 2012 ts	-04-04 Dil. 1 ike and Spike Amour 100 ike and -04-06 -04-06 Dil.	Amou 100 spike dup Matriz at Result <3.85 spike dup Spike Amount	Int Re S Rec. 107 licate resu Matrix Result	Prep trix sult R .85 9 It. Rec. Limit 85 - 115 It. Analy Prepa	ared By ec. 99 8 RPD 7 yzed By ared By	: AR Rec. Limit 35 - 118 RPD Limit 20 : AG : tc Rec. imit
Prep Batch: 76362 Param Chloride Percent recovery is based on the standard stan	spike F spike CS-1	F resul resul	QC Pr I C Ra C Ra C Ra I C Result 107 t. RPD is Date A QC Pr LC: C Resu	eparation: CS esult U 19.4 m based on Units mg/Kg based on Analyzed: eparation: S ut Unit 7 mg/J	2012 Jnits g/Kg the sp Dil. 1 the sp 2012 2012 2012 ts Kg	-04-04 Dil. 1 ike and Spike Amour 100 ike and -04-06 -04-06 -04-06	Amou 100 spike dup Matriz at Result <3.85 spike dup Spike dup	Int Re S Rec. 107 licate resu Matrix Result <0.0047	Prep trix sult R .85 9 lt. Rec. Limit 85 - 115 lt. Analy Preps Rec. 0 104	ared By ec. 99 7 7 yzed By ared By 1 L 86.5	: AR Rec. Limit 35 - 118 RPD Limit 20 : AG : tc Rec. imit - 124.8
Prep Batch: 76362 Param Chloride Percent recovery is based on the standard chloride Param Chloride Percent recovery is based on the standard chloride Percent recovery is based on the standard chloride QC Batch: 90067 Prep Batch: 76426 Param	spike F spike CS-1	F resul resul	QC Pr I C Ra C Ra LCSD Result 107 t. RPD is Date A QC Pr LCS C Resu	eparation: CS esult U 9.4 m based on Units mg/Kg based on Analyzed: eparation: S ult Unit 7 mg/J 7 mg/J 7 mg/J	2012 Jnits g/Kg the sp Dil. 1 the sp 2012 2012 2012 2012 ts Kg Kg	-04-04 Dil. 1 ike and Spike Amour 100 ike and -04-06 -04-06 Dil.	Amou 100 spike dup Matriz at Result <3.85 spike dup Spike Amount	Int Re S Rec. 107 licate resu Matrix Result	Prep trix sult R .85 9 lt. Rec. Limit 85 - 115 lt. Analy Prepa Rec. 0 104 0 104	ared By ec. 99 7 7 yzed By ared By 1 86.5 84.7	: AR Rec. Limit 35 - 118 RPD Limi 20 : AG : tc Rec. imit

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Percent recovery is based on the s	pike re	sult. RP	D is based	d on tl	he spike a	nd spi	ke dupli	cate	result.			
		LCSD			Spike		atrix]	Rec.		RPI
Param	F C	Result	Units	Dil.			esult	Rec.		limit	RPD	Limi
Benzene	1	2.21	mg/Kg	1	2.00		00470	110		- 124.9	6	20
Toluene	1	2.19	mg/Kg	1	2.00		00980	110		- 122.5	6	20
Ethylbenzene	1	2.20	mg/Kg	1	2.00		00500	110		- 118.9	6	20
Xylene	1	6.58	mg/Kg	1	6.00		.01'70	110		- 118.9	6	20
Percent recovery is based on the s	pike re	sult. RP	D is based	l on tl	he spike a	nd spi	ke dupli	cate :	result.			
							Spik	е	LCS	LCSD		Rec.
Surrogate		1		sult	Units	Dil.	A.mou		Rec.	Rec.		imit
Trifluorotoluene (TFT)				00	mg/Kg	1	2.00		99	100		9 - 127
4-Bromofluorobenzene (4-BFB)		2.	02 2.	05	mg/Kg	1	2.00)	101	102	70.4	- 119.
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426	CS-1)		te Analyz Preparat		2012-04-0 2012-04-0						zed By red By	: AC
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426		QC	Preparat	ion:	2012-04-0	6	Spike		atrix	Prepa	zed By red By H	: AG : tc Rec.
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426 Param	CS-1) F	QC C	Preparat LCS Result	ion: Unit	2012-04-0 ts Dil.	6	mount	Re	esult	Prepa Rec.	zed By red By I L	: AG : tc Rec. imit
Laboratory Control Spike (LO QC Batch: 90068 Prep Batch: 76426 Param GRO	F		Preparat LCS Result 17.4	tion: Unit mg/H	2012-04-0 ts Dil. Kg 1	6 A	mount 20.0	Re <	esult 1.22	Prepa	zed By red By I L	: AG : tc Rec.
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426 Param	F	QC C sult. RP	Preparat LCS Result 17.4	tion: Unit mg/H	2012-04-0 ts Dil. Kg 1 he spike ar	6 A nd spil	mount 20.0 ke dupli	Re <	esult 1.22 result.	Prepa Rec. 87	zed By red By I L	: AG : tc Rec. imit - 105.
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based on the s	F pike re	QC C sult. RP LCSD	Preparat LCS Result 17.4 D is based	tion: Unit mg/H l on th	2012-04-0 ts Dil. Kg 1 he spike ar Spike	6 A nd spil	mount 20.0 ke dupli atrix	Re < cate 1	esult 1.22 result. F	Prepa Rec. 87 Rec.	rzed By red By I L 68.3	: AG : tc Rec. imit - 105. RPI
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based on the s Param	F pike re F C	QC C sult. RPI LCSD Result	Preparat LCS Result 17.4 D is based Units	tion: Unit mg/H l on th Dil	2012-04-0 ts Dil. Kg 1 he spike an Spike . Amour	6 A nd spil M at R	mount 20.0 ke dupli atrix esult	Rec.	esult 1.22 result. F	Prepa Rec. 87 Rec. imit	rzed By red By H L 68.3 RPD	: AG : tc Mec. imit - 105. RPI Limi
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based on the s	F pike re F C	QC C sult. RP LCSD Result 	Preparat LCS Result 17.4 D is based Units	Unit Mg/H l on th Dil	2012-04-0 ts Dil. Kg 1 he spike ar Spike . Amour 	6 A nd spil M at R	mount 20.0 ke dupli atrix esult 1.22	Rec.	esult 1.22 result. F Li -68.3	Prepa Rec. 87 Rec.	rzed By red By H L 68.3 RPD	: AG : tc Mec. imit - 105. RPI Limi
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based on the s Param GRO	F pike re F C	QC C sult. RP LCSD Result 	Preparat LCS Result 17.4 D is based Units 	Unit mg/H l on th Dil : 1 l on th	2012-04-0 ts Dil. Kg 1 he spike ar Spike . Amour 	6 A nd spil M at R	mount 20.0 ke dupli atrix esult 1.22	Rec. Rec. 88 cate 1	esult 1.22 result. F Li -68.3	Prepa Rec. 87 Rec. imit	red By F L 68.3 RPD 1	: AG : tc Mec. imit - 105. RPI Limi
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Surrogate	F pike re F C	QC C sult. RP LCSD Result 	Preparat LCS Result 17.4 D is based Units Units D is based CS - LC sult Res	Unit mg/H l on th Dil : 1- l on th SD sult	2012-04-0 ts Dil. Kg 1 he spike ar Spike . Amour 	6 A nd spil M at R ad spil	mount 20.0 ke dupli atrix esult 1.22 ke dupli	Rec. Rec. 88 cate 1	esult 1.22 result. F 	Prepa Rec. 87 Rec. imit = 105.7	red By red By E 68.3 RPD 1 	: AG : tc imit - 105. RPI Limi - 20
Laboratory Control Spike (LC QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Percent recovery is based on the s	F pike re F C	QC C sult. RP LCSD Result =17.5 sult. RP	Preparat LCS Result 17.4 D is based Units 	Unit mg/H l on th Dil : 1- l on th SD sult	2012-04-0 ts Dil. Kg 1 he spike an Spike . Amour 	6 A nd spil M at R ad spil	mount 20.0 ke dupli atrix esult 1.22 ke dupli Spike	Rec. Rec. 88 cate 1 cate 1	esult 1.22 result. F 	Prepa Rec. 87 Rec. imit = 105.7 LCSD	red By Fred By E 68.3 RPD 1 	: AG : tc imit - 105. RPI Limi - 20 Rec.

Date Analyzed: 2012-04-02 QC Preparation: 2012-04-02

Analyzed By: DA Prepared By: DA

QC Batch: 89888 Prep Batch: 76291

114-6401354						12040201 State #2				•	mber: 2 Eddy C	
				MS			Spike		atrix			Rec.
Param		F	C 1	Result	Units		Amount		esult	Rec.		Limit
DRO			1	1040	mg/K	g 5	250		365	70	45.	5 - 127
Percent recovery is based on th	e spike	resu	lt. RPE) is based	d on the	spike and	l spike dupli	icate re	sult.			
			MSD			Spike	Matrix		R	ec.		RPD
Param	\mathbf{F}	С	Result	Units	Dil.	Amoun		Rec.	Li	mit	RPD	Limi
DRO		1	1040	mg/K	g 5	250	865	70	45.5	- 127	0	20
Percent recovery is based on th	e spike	resu	lt. RPD	is based	d on the	spike and	l spike dupli	cate re	sult.		-	
	ז	MS	M	SD			Spike	MS	3	MSD	F	lec.
~		esult			Units	Dil.	Amount	Rec		Rec.		imit
Surrogate										ILCC.	<i>L</i> /	
n-Tricosane Qar Qar Matrix Spike (MS-1) Spil QC Batch: 89908	2	290	29 293145 Dat	97 1		5 2012-04-03 2012-04-02	100	290		297 Ana		y: tc
n-Tricosane _{Qar Qar} Matrix Spike (MS-1) Spil QC Batch: 89908	2	290	293145 293145 QC	97 1 Se Analys	zed: 2	5	100	290 Mat)	297 Ana	45.4 lyzed B bared B	y: tc
n-Tricosane _{Qar Qar} Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308	2	290 nple:	293145 293145 Dat QC	97 1 Se Analys Prepara MS esult	zed: 2 stion: 2 Units	5	100) .rix	297 Ana	45.4 lyzed B bared B	y: tc y: tc
n-Tricosane _{Qar Qar} Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308 Param	2 ked Sar	290 nple:	293145 293145 QC C R	97 1 Se Analys Prepara MS esult	zed: 2 stion: 2	5 2012-04-03 2012-04-02	100 Spike	Mat) .rix ult	297 Ana Prep	45.4 lyzed B bared B F L	iy: tc y: tc Rec. imit
n-Tricosane Qar Qar Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308 Param GRO	2 ked Sar F	290 nple:	293145 293145 QC C R 1	97 1 Se Analys Prepara MS esult 39.9	zed: 2 ation: 2 Units mg/Kg	5 012-04-03 012-04-02 Dil. 5	Spike Amount 50.0	Mat Res 34.11) rix ult 827	297 Ana Prep Rec.	45.4 lyzed B bared B F L	iy: tc y: tc Rec. imit
n-Tricosane Qar Qar Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308 Param GRO	2 ked Sar F	290 nple:	293145 293145 Dat QC C R 1 8 It. RPD	97 1 Se Analys Prepara MS esult 39.9	zed: 2 ation: 2 Units mg/Kg	5 012-04-03 012-04-02 Dil. 5 spike and	Spike Amount 50.0 spike dupli	Mat Res 34.11) rix ult 827	297 Ana Prep Rec. 111	45.4 lyzed B bared B F L	y: tc y: tc lec. imit - 157.2
Matrix Spike (MS-1) Spil QC Batch: 89908	ked Sar F e spike	290 nple: resu	293145 293145 QC C R 1	97 1 Se Analys Prepara MS esult 39.9	zed: 2 ation: 2 Units mg/Kg	5 012-04-03 012-04-02 Dil. 5	Spike Amount 50.0 spike dupli Matrix	Mat Res 34.11	rix ult 827 sult. Re	297 Ana Prep Rec. 111	45.4 lyzed B bared B F L	y: tc Rec.
n-Tricosane Qar Qar Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308 Param GRO Percent recovery is based on the Param	ked Sar F e spike	290 nple: resu	293145 Dat QC C R 1 3 It. RPD MSD	e Analy: Prepara MS esult 39.9 is based	zed: 2 htion: 2 Units mg/Kg 1 on the Dil.	5 012-04-03 012-04-02 Dil. 5 spike and Spike	Spike Amount 50.0 spike dupli Matrix	Mat Ress 34.13 cate re Rec.	rix ult 827 sult. Ra Lir	297 Ana Prep Rec. 111 ec.	45.4 lyzed B bared B F L 28.2	y: tc y: tc Rec. imit - 157.2 RPD
n-Tricosane _{Qar Qar} Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308 Param GRO Percent recovery is based on the	2 ked Sar F F	290 nple: resu C	293145 Dat QC C R 1 8 It. RPD MSD Result 97.4	e Analy: Prepara MS esult 39.9 is based Units mg/Kg	zed: 2 ation: 2 Units mg/Kg I on the Dil. 5	5 012-04-03 012-04-02 Dil. 5 spike and Spike Amount 50.0	100 Spike Amount 50.0 spike dupli Matrix Result 34.1827	Mat Ress 34.13 cate re Rec. 126	orix ult 827 sult. Re Lir 28.2 -	297 Ana Prep Rec. 111 ec. nit	45.4 lyzed B bared B F L 28.2 RPD	y: tc y: tc imit - 157.2 RPD Limit
n-Tricosane Qar Qar Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308 Param GRO Param GRO	2 ked Sar F F	290 nple: resu C	C R 1 SD MSD Result 97.4 It. RPD	e Analys Prepara MS esult 39.9 is based Units mg/Kg is based	zed: 2 ation: 2 Units mg/Kg 1 on the Dil. 5 1 on the	5 012-04-03 012-04-02 Dil. 5 spike and Spike Amount 50.0	100 Spike Amount 50.0 spike dupli Matrix Result 34.1827 spike dupli	Mat Ress 34.11 cate re Rec. 126 cate re	orix ult 827 sult. Ra Lin 28.2 - sult.	Ana Prep Rec. 111 ec. mit 157.2	45.4 lyzed B bared B F L 28.2 RPD 8	y: tc y: tc imit - 157.2 RPD Limit 20
n-Tricosane Qar Qar Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308 Param GRO Percent recovery is based on the Param GRO Percent recovery is based on the	2 ked Sar F F	290 nple: resu C	293145 Dat QC C R 1 8 It. RPD MSD Result 97.4	e Analys Prepara MS esult 39.9 is based Units mg/Kg is based S M	zed: 2 ation: 2 Units mg/Kg d on the Dil. 5 d on the SD	5 012-04-03 012-04-02 Dil. 5 spike and Spike Amount 50.0 spike and	100 Spike Amount 50.0 spike dupli Matrix Result 34.1827	Mat Ress 34.11 cate re Rec. 126 cate re ke	orix ult 827 sult. Re Lir 28.2 -	297 Ana Prep Rec. 111 ec. nit	45.4 lyzed B bared B F L 28.2 RPD 8	y: tc y: tc imit - 157.2 RPD Limit
n-Tricosane Qar Qar Matrix Spike (MS-1) Spil QC Batch: 89908 Prep Batch: 76308 Param GRO Param GRO	2 ked Sar F F	290 nple: resu C	C R 1 SD MSD Result 97.4 It. RPD MSD Result 97.4	e Analys Prepara MS esult 39.9 is based <u>Units</u> mg/Kg is based S M ult Re	zed: 2 ation: 2 Units mg/Kg I on the Dil. 5 I on the SD sult	5 012-04-03 012-04-02 Dil. 5 spike and Spike Amount 50.0 spike and	100 Spike Amount 50.0 spike dupli Matrix Result 34.1827 spike dupli Spil	Mat Ress 34.11 cate re Rec. 126 cate re ke unt	orix ult 827 sult. Re Lir 28.2 - sult. MS	Ana Prep Rec. 111 ec. mit 157.2 MSD	45.4 lyzed B bared B F L 28.2 RPD 8 F L	iy: tc y: tc imit - 157.2 RPD Limit 20 Rec.

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QC Batch:	89939	Date Analyzed:	2012-04-03	Analyzed By:	\mathbf{tc}
Prep Batch:	76335	QC Preparation:	2012-04-03	Prepared By:	tc

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114-6401354			1										
matrix spikes continued			ļ						_				
Param	F	ہ	с	MS Result	Unit	ts Dil.		spike nount		latrix .esult	Rec.		Rec Jim
n <u>han na han /u>				MS			c	Spike	м	[atrix			Rec
Param	F	5	С	Result	Unit	ts Dil.		nount		esult	Rec.		Jim
GRO Q8	Q		1	2.85	mg/I			20.0		4473	7	28.2	
Percent recovery is based on the spi	ke r	esult	RP	D is based			nd spik	e dupl	icate	result.			
			MSD			Spike	e Ma	atrix		R	lec.		F
Param	F	C	Resul		Dil	-		esult	Rec.		imit	RPD	I
GRO Q8		1	2.42	mg/Kg	g 1	20.0		4473	5	28.2	- 157.2	16	
Percent recovery is based on the spi	ke r	esult	RP	D is based	on th	ie spike ar	ıd spik	e dupl	icate	result.			
			۱	IS M	SD			Spi	ke	MS	MSD	1	Rec
Surrogate			1		sult	Units	Dil.	Amc		Rec.	Rec.		Jim
Trifluorotoluene (TFT)			1	78 1.	88	mg/Kg	1	2		89	94	75.5	
4-Bromofluorobenzene (4-BFB)			1.	69 1.	71	mg/Kg	1	2		84	86	77.9	- 1
Matrix Spike (MS-1) Spiked S QC Batch: 89940 Prep Batch: 76335	Samj	ple: :	Da	0 ute Analyz C Preparat		2012-04-0 2012-04-0						lyzed E bared B	-
QC Batch: 89940	Samj	ple: :	Da Q(te Analyz				ke	Ма	trix		bared B	y:
QC Batch: 89940	Samj F	ple: :	Da Q(te Analyz C Preparat MS Lesult	tion: Units	2012-04-0 Dil.)3 Spi Amo	unt	Re	sult	Prep Rec.	pared B H L	y: Rec
QC Batch: 89940 Prep Batch: 76335 Param Benzene		C	Da Q(ate Analyz C Preparat MS Lesult 2.00 n	tion: Units ng/Kg	2012-04-0 Dil.)3 Spi Amo 2.0	ount 10	Re:	sult)0470	Prep Rec. 100	pared B H L 69.3	y: Rec imi - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene			Da Q(ute Analyz C Preparat MS Lesult 2.00 n 2.04 n	tion: Units ng/Kg ng/Kg	2012-04-0 Dil.)3 Spi Amo 2.0 2.0	ount)0)0	Re: <0.0	sult 00470 00980	Prep Rec. 100 102	50 Sared B 11 69.3 68.1	Rec imi - 1 7 -
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene			Da Q(ute Analyz C Preparat MS Lesult 2.00 n 2.04 n 2.10 n	tion: Units ng/Kg ng/Kg	2012-04-0 Dil.	03 Spi Amo 2.0 2.0 2.0 2.0	ount)0)0)0	Res <0.0 <0.0 <0.0	sult 10470 10980 10500	Prep Rec. 100 102 105	Deared B I 69.3 68.7 71.6	By: Rec imi - 1 7 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene	F	C 1 1 1 1	Da Qa	tte Analyz C Preparat MS Lesult 2.00 m 2.10 m 6.35 m	tion: <u>Units</u> ng/Kg ng/Kg ng/Kg	2012-04-0 Dil. 1 1 1	03 Spi Amo 2.0 2.0 2.0 6.0	ount 00 00 00 00	Re: <0.0 <0.0 <0.0 <0.0	sult 00470 00980 00500 0170	Prep Rec. 100 102	50 Sared B 11 69.3 68.1	By: Rec imi - 1 7 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene	F	C 1 1 1 1 esult	Da Qa	tte Analyz C Preparat MS Lesult 2.00 m 2.10 m 6.35 m	tion: <u>Units</u> ng/Kg ng/Kg ng/Kg	2012-04-0 Dil. 1 1 1	03 Spi Amo 2.0 2.0 2.0 6.0	ount 00 00 00 00 e dupl	Re: <0.0 <0.0 <0.0 <0.0	sult 00470 00980 00500 0170 result.	Prep Rec. 100 102 105	Deared B I 69.3 68.7 71.6	Sy: Rec imi - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene	F ke re	C 1 1 1 esult M Ra	Da Q(F RP ISD	tte Analyz C Preparat MS Lesult 2.00 m 2.04 m 2.10 m 6.35 m D is based Units	tion: <u>Units</u> ng/Kg ng/Kg ng/Kg	Dil. Dil. 1 1 e spike an Spike Amount	Spi Amo 2.0 2.0 6.0 d spike Mat Res	unt 00 00 00 e dupli trix sult	Re: <0.0 <0.0 <0.0 <0.0	sult 00470 00980 00500 0170 result. R Li	Prep <u>Rec.</u> 100 102 105 106 Lec. mit	Deared B I 69.3 68.7 71.6	By: Rec <u>imi</u> - 1 - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Param Benzene	F ke re	C 1 1 1 1 esult Ra 2	Da Q(R R SD Sult 208	tte Analyz C Preparat MS tesult 2.00 n 2.04 n 6.35 n D is based Units mg/Kg	tion: ng/Kg ng/Kg ng/Kg ng/Kg on th Dil. 1	2012-04-0 Dil. 1 1 e spike an Spike Amount 2.00)3 Spi Amo 2.0 2.0 6.0 nd spike Res <0.0	unt 00 00 00 e dupli trix sult 0470	Res <0.0 <0.0 <0.0 <0.0	sult 10470 10980 10500 0170 result. R Li 69.3	Prep <u>Rec.</u> 100 102 105 106 tec. mit - 159.2	Pared B F 69.3 68.7 71.6 70.8	By: Rec <u>iimi</u> - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Param F Benzene Toluene	F ke re C	C 1 1 1 esult Ra 2 2	Da Qd F RP ISD ssult .08	tte Analyz C Preparat MS tesult 2.00 n 2.04 n 2.10 n 6.35 n D is based Units mg/Kg mg/Kg	tion: <u>Units</u> ng/Kg ng/Kg on th <u>Dil.</u> 1 1	2012-04-0 Dil. 1 1 e spike an Spike Amount 2.00 2.00)3 Spi Amo 2.0 2.0 6.0 id spike Mat Res <0.00 <0.00	ount 00 00 00 e dupl trix oult 0470 0980	Re: <0.0 <0.0 <0.0 cate 1 Rec. 104 106	sult 00470 00980 00500 0170 result. R Li 69.3 68.7	Prep <u>Rec.</u> 100 102 105 106	Pared B H L 69.3 68.1 71.6 70.8 RPD	By: Rec <u>iimi</u> - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Param Faram Enzene Toluene Ethylbenzene	F ke re C	C 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Dz Q(RP ISD ssult 12 18	tte Analyz C Preparat MS tesult 2.00 n 2.04 n 6.35 n D is based Units mg/Kg mg/Kg mg/Kg	tion: <u>Units</u> ng/Kg ng/Kg on th <u>Dil.</u> 1 1 1 1	2012-04-0 Dil. 1 1 e spike an Spike Amount 2.00 2.00 2.00)3 Spi Amo 2.0 2.0 6.0 d spike Mat Res <0.00 <0.00 <0.00 <0.00	unt)0)0)0 e dupl trix sult 04'70 0980 0500	Rec. <0.0 <0.0 <0.0 co.0	sult 00470 00980 00500 0170 result. R Li 69.3 68.7 71.6	Prep <u>Rec.</u> 100 102 105 106	Pared B F L 69.3 68.7 71.6 70.8 RPD 4 4 4	By: Rec <u>imi</u> - 1 - 1 - 1 - 1 - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Param F Benzene Toluene Ethylbenzene Xylene	F ke re	C 1 1 1 esult 2 2 2 2 2 6	Dz Q(F RP) (SD ssult .08 .12 .18 .60	ute Analyz C Preparat MS tesult 2.00 m 2.04 m 2.10 m 6.35 m D is based Units mg/Kg mg/Kg mg/Kg mg/Kg	tion: Units ng/Kg ng/Kg on th Dil. 1 1 1 1 1	2012-04-0 Dil. 1 1 2 1 3 1 2 1 3 1 2 1 2 1 2 1 2 1 2 1 2 2 2 2 2 2 2 2 2)3 Spi Amo 2.0 2:0 2:0 2.0 6.0 4.0 4.0 5 2:0 2.0 6.0 4.0 5 2:0 0 4.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	unt 10 10 10 10 10 10 10 10 10 10	Rec. <0.0 <0.0 <0.0 <0.0 (cate r Rec. 104 106 109 110	sult 00470 00980 00500 0170 result. R Li 69.3 68.7 71.6 70.8	Prep <u>Rec.</u> 100 102 105 106	Pared B F L 69.3 68.7 71.6 70.8 RPD 4 4	By: Rec <u>imi</u> - 1 - 1 - 1 - 1 - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Param Faram Enzene Toluene Ethylbenzene	F ke re	C 1 1 1 esult 2 2 2 2 2 6	Dz Q(F SD SSUlt 12 18 60 . RP	tte Analyz C Preparat MS tesult 2.00 m 2.04 m 2.10 m 6.35 m D is based Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	tion: Units ng/Kg ng/Kg on th Dil. 1 1 1 1 1 1 1 1 1 1 1 1 1	2012-04-0 Dil. 1 1 2 1 3 1 2 1 3 1 2 1 2 1 2 1 2 1 2 1 2 2 2 2 2 2 2 2 2)3 Spi Amo 2.0 2:0 2:0 2.0 6.0 4.0 4.0 5 2:0 2.0 6.0 4.0 5 2:0 0 4.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	unt)0)0)0 e dupli trix sult 0470 0980 0500)170 e dupli	Res <0.0 <0.0 <0.0 <0.0 <0.0 (cate r 104 106 109 110 icate r	sult 00470 00980 00500 0170 result. R Li 69.3 68.7 71.6 70.8 result.	Prep Rec. 100 102 105 106 ecc. mit - 159.2 - 157 - 158.2 - 159.8	Pared B F L 69.3 68.7 71.6 70.8 RPD 4 4 4	By: Rec <u>imi</u> - 1 - 1 - 1 - 1 - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Param F Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi	F ke re	C 1 1 1 esult 2 2 2 2 2 6	Dz Q(F RP) (SD ssult .08 .12 .18 .60 . RP) M	tte Analyz C Preparat MS tesult 2.00 m 2.04 m 2.10 m 6.35 m D is based Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg Mg/Kg Mg/Kg	tion: Units ng/Kg ng/Kg on th Dil. 1 1 1 1 5D	2012-04-0 Dil. 1 1 2 1 2 1 2 1 2 1 2 9 2 9 2.00 2.00 2.00 6.00 e spike an)3 Spi Amo 2.0 2.0 6.0 4.0 6.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 0	unt 10 10 10 10 10 10 10 10 10 10	Rec. <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0	sult 00470 00980 00500 0170 result. R Li 69.3 68.7 71.6 70.8 result. MS	Prep Rec. 100 102 105 106 Lec. mit - 159.2 - 157 - 158.2 - 159.8 MSD	Pared B F L 69.3 68.7 71.6 70.8 RPD 4 4 4 4 4 F	Rec imi - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Param F Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Surrogate	F ke re	C 1 1 1 esult 2 2 2 2 2 6	Da Q(P RP) (SD ssult .08 .12 .18 .60 . RP) M Re	ute Analyz C Preparat MS tesult 2.00 m 2.04 m 2.04 m 2.10 m 6.35 m D is based Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	tion: Units ng/Kg ng/Kg on th Dil. 1 1 1 1 5D sult	2012-04-0 Dil. 1 1 2 1 2 1 2 1 2 1 2 9 2 9 2.00 2.00 2.00 6.00 e spike an Units	Spi Amo 2.0 2.0 2.0 2.0 6.0 d spike Mat Res <0.00	unt 10 10 10 10 10 10 10 10 10 10	Rec. <0.0 <0.0 <0.0 <0.0 (cate r Rec. 104 106 109 110 icate r ke unt	sult 00470 00980 00500 0170 result. R Li 69.3 68.7 71.6 70.8 result. MS Rec.	Prep Rec. 100 102 105 106 Lec. mit - 159.2 - 157 - 158.2 - 159.8 MSD Rec.	Pared B F L 69.3 68.7 71.6 70.8 RPD 4 4 4 4 F L	Rec imi - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
QC Batch: 89940 Prep Batch: 76335 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi Param F Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spi	F ke re	C 1 1 1 esult 2 2 2 2 2 6	Da Q(P RP) (SD ssult .08 .12 .18 .60 . RP) M Re 1.	tte Analyz C Preparat MS tesult 2.00 m 2.04 m 2.10 m 6.35 m D is based Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg 2.04 m 8 tesult Res 78 2.1	tion: Units ng/Kg ng/Kg ng/Kg on th Dil. 1 1 1 1 1 1 5D sult 05	2012-04-0 Dil. 1 1 2 1 2 1 2 1 2 1 2 9 2 9 2.00 2.00 2.00 6.00 e spike an)3 Spi Amo 2.0 2.0 6.0 4.0 6.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 4.0 0.0 0	unt 10 10 10 10 10 10 10 10 10 10	Rec. <0.0 <0.0 <0.0 <0.0 (cate r Rec. 104 106 109 110 icate r ke unt	sult 00470 00980 00500 0170 result. R Li 69.3 68.7 71.6 70.8 result. MS	Prep Rec. 100 102 105 106 Lec. mit - 159.2 - 157 - 158.2 - 159.8 MSD	Pared B F L 69.3 68.7 71.6 70.8 RPD 4 4 4 4 4 F	Rec. imi - 1 - 1 - 1 R L: Rec. imi - 1

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114-6401354	e: April 11, 2 I	.012		;		Order: 13 Mesilla S				Page N		Co., NN
Matrix Spi	ike (MS-1)	Spiked Sa	ample:	293093	3							
QC Batch:	89977			' Dat	e Analyz	ed: 20	12-04-04			Anal	yzed By	r: DA
Prep Batch:					Preparat		12-04-04				ared By	
					MS			Spike	Ma	ıtrix		Rec.
Param			F	$\cdot \mathbf{C}$	\mathbf{Result}	Units		Amount		sult Red		Limit
DRO		Qs	Qs	: 1	627	mg/Kg	g 1	250	1	94 173	3 45	.5 - 127
Percent reco	very is based	on the spik	e resu	lt. RPI) is based	l on the s	spike and s	spike dupli	cate res	ult.		
				MSD)		Spike	Matrix		Rec.		RPD
Param		F	C C	Resul		s Dil.	Amount		Rec.	Limit	RPD	Limit
DRO		 Qs Q		709	mg/K		250	194	206	45.5 - 127	12	20
	very is based										<u></u>	
I ereent reed	10 00000	on the spin		1			spino una i					
a		-	MS		SD	TT 1.		Spike	MS			Rec.
Surrogate		ł	Result	Re	sult	Units	Dil.	Amount	Rec.	. Rec.	- 1	imit
n-Tricosane	Qs r Q	37	220			mg/Kg	1	100	220		45.4	- 145.8
n-Tricosane Matrix Spi QC Batch: Prep Batch:	ike (MS-1) 89994	^{sr} Spiked Sa	220	2 : 293116 Da	41 1	mg/Kg zed: 20				241 An:	45.4 alyzed H pared E	•
Matrix Spi QC Batch:	ike (MS-1) 89994		220	2 293116 Da QC	41 1 5 te Analyz	mg/Kg zed: 20	1 012-04-04	100	220	241 Ana Pre	alyzed H pared E	3y: tc 3y: tc
Matrix Spi QC Batch:	ike (MS-1) 89994		220	2 293116 Da QC	41 1 5 te Analyz 2 Prepara	mg/Kg zed: 20	1 012-04-04			241 Ana Pre	alyzed H pared E	3y: tc
Matrix Spi QC Batch: Prep Batch:	ike (MS-1) 89994		220 ample:	2 293116 Da QC	41 1 5 te Analyz C Prepara MS Result	mg/Kg zed: 20 .tion: 20 Units	1)12-04-04)12-04-04 Dil.	100 Spike	220 Matr Resu	241 Ana Pre	alyzed H pared E	3y: tc 3y: tc Rec. .imit
Matrix Spi QC Batch: Prep Batch: Param GRO	ike (MS-1) 89994	Spiked St	220 ample: F	2 293116 Da QC C F	41 1 5 te Analyz 7 Prepara MS Result 1470	mg/Kg zed: 20 tion: 20 Units mg/Kg	1)12-04-04)12-04-04)12-04-04 Dil.	Spike Amount	220 Matr Resu	241 Ana Pre ix it Rec. 43 120	alyzed H pared E	3y: tc 3y: tc Rec. .imit
Matrix Spi QC Batch: Prep Batch: Param GRO	ike (MS-1) 89994 76371	Spiked St	220 ample: F e resu	2 : 293116 Da QC C F -i It. RPI	41 1 5 te Analyz 7 Prepara MS Result 1470 0 is based	mg/Kg zed: 20 tion: 20 Units mg/Kg I on the s	1 012-04-04 012-04-04 Dil. 50 spike and s	Spike Amount 500 spike dupli	220 Matr Resu	241 Ana Pre ix it Rec. 43 120 rult.	alyzed H pared E	3y: tc 3y: tc Rec. .imit 157.2
Matrix Spi QC Batch: Prep Batch: Param GRO- Percent reco	ike (MS-1) 89994 76371	Spiked St	220 ample: F e resu	2 293116 Da QC C F	41 1 5 te Analyz 7 Prepara MS Result 1470 0 is based	mg/Kg zed: 20 tion: 20 Units mg/Kg l on the s	1 012-04-04 012-04-04 Dil. 50 spike and s	Spike Amount 500 spike dupli Matrix	220 Matr Resu	241 Ana Pre ix it Rec. 43 120	alyzed H pared E	By: tc By: tc Rec. .imit
Matrix Spi QC Batch: Prep Batch: Param GRO Percent recc Param	ike (MS-1) 89994 76371	Spiked Sa	220 ample: F e resu	2 293116 Da QC C F 1 1, RPI MSD	41 1 5 te Analyz 7 Prepara MS Result 1470 0 is based Units	mg/Kg zed: 20 tion: 20 Units mg/Kg I on the s	1)12-04-04	Spike Amount 500 Spike dupli Matrix	220 Matr Resu 870.9 cate res Rec.	241 Ana Pre ix dt Rec. 43 120 sult. Rec.	alyzed F pared E I 28.2	3y: tc 3y: tc Rec. .imit 157.2
Matrix Spi QC Batch: Prep Batch: Param GRO Percent reco Param GRO	ike (MS-1) 89994 76371 wery is based	Spiked Sa on the spik	220 F e resu C	2 293116 Da QC C F 1 1 t. RPI MSD Result 1360	41 1 5 te Analyz C Prepara MS Result 1470 D is based Units mg/Kg	mg/Kg zed: 20 tion: 20 Units mg/Kg l on the s Dil. 2 50	1 012-04-04 012-04-04 Dil. 50 spike and s Spike Amount 500	Spike Amount 500 spike dupli Matrix Result 870.943	220 Matr Resu 2870:9 cate res Rec. 98 2	241 Ana Pre ix lt Rec. 43 120 sult. Rec. Limit 28.2 - 157.2	alyzed H pared H I 	3y: tc 3y: tc .imit 157.2 Limit
Matrix Spi QC Batch: Prep Batch: Param GRO Percent reco Param GRO	ike (MS-1) 89994 76371	Spiked Sa on the spik	220 F e resu C	2 293116 Da QC C F 1 Lt. RPI MSD Result 1360 It. RPI	41 1 5 te Analyz C Prepara MS Result 1470 D is based Units mg/Kg D is based	mg/Kg zed: 20 tion: 20 Units mg/Kg l on the s Dil. 2 50 l on the s	1 012-04-04 012-04-04 Dil. 50 spike and s Spike Amount 500	Spike Amount 500 spike dupli Matrix Result 870.943 spike dupli	220 Matr Resu 870.9 cate res Rec. 98 2 cate res	241 An Pre ix it Rec. 43 120 sult. Rec. Limit 28.2 - 157.2 sult.	alyzed H pared H I I RPD 8	By: tc By: tc .imit 157.2 Limit 20
Matrix Spi QC Batch: Prep Batch: Param GRO Percent reco Param GRO Percent reco	ike (MS-1) 89994 76371 wery is based	Spiked Sa on the spik	220 F e resu C	2 293116 Da QC C F 1 1t. RPI MSD Result 1360 It. RPI	41 1 5 te Analyz C Prepara MS Result 1470 D is based MS	mg/Kg zed: 20 tion: 20 Units mg/Kg l on the s Dil. 2 50 l on the s MSD	1 012-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 00-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 010-04-04 000	100 Spike Amount 500 spike dupli Matrix Result 870.943 spike dupli Spi	220 Matr Resu 870.9 cate res Rec. 98 2 cate res ke	241 Ana Pre ix dt Rec. 43 120 ault. Rec. Limit 28.2 - 157.2 ault. MS MSL	alyzed H pared H I RPD 8	By: tc By: tc .imit 157.2 Limit 20 Rec.
Matrix Spi QC Batch: Prep Batch: Param GRO Percent reco Surrogate	ike (MS-1) 89994 76371 wery is based	Spiked Sa on the spik	220 F e resu C 1 e resu	2 293116 Da QC C F 1 1 k. RPI MSD Result 1360 It. RPI	41 1 5 te Analyz C Prepara MS Result 1470 D is based MS MS tesult F	mg/Kg zed: 20 tion: 20 Units mg/Kg l on the s Dil. 2 50 l on the s MSD Result	1 012-04-04 012-04 012-04-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 012-04 010-04 010-04 010-04 00000000	Spike Amount 500 spike dupli Matrix Result 870.943 spike dupli Spike dupli Dil. Amo	220 Matr Resu 870:9 cate res 98 2 cate res ike punt 1	241 Ana Pre ix dt Rec. 43 120 sult. Rec. Limit 28.2 - 157.2 sult. MS MSE Rec. Rec.	alyzed H pared H I I RPD 8	By: tc By: tc .imit 157.2 Limit 20 Rec. .imit
Matrix Spi QC Batch: Prep Batch: Param GRO Percent reco Param GRO Percent reco Surrogate Trifluorotoh	ike (MS-1) 89994 76371 wery is based	Spiked Sa on the spik F on the spik	220 F e resu C	2 293116 Da QC C F 1 1 4. RPI NSD Result 1360 It. RPI R	41 1 5 te Analyz C Prepara MS Result 1470 D is based Units mg/Kg D is based MS Lesult F 35.6	mg/Kg zed: 20 tion: 20 Units mg/Kg l on the s Dil. 2 50 l on the s MSD Result 44.2	1 012-04-04 012-04-04 012-04-04 012-04-04 spike and s Spike and s Spike and s Units 1 mg/Kg	100 Spike Amount 500 spike dupli Matrix Result 870.943 spike dupli Spi	220 Matr Resu 870:9 cate res 98 2 cate res ike punt 1 0	241 Ana Pre ix dt Rec. 43 120 ault. Rec. Limit 28.2 - 157.2 ault. MS MSL	alyzed H pared E I I RPD 8 N I 75.5	By: tc By: tc .imit 157.2 Limit 20 Rec.

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Report Date: April-11, 2012 114-6401354						12040201 State #2					imber: 3 Eddy C	
Matrix Spike (MS-1) Spik	ed Sam	ple:	29198)								
QC Batch: 89995			Da	te Analy	zed: 🖇	2012-04-04	1			Ana	lyzed B	v te
Prep Batch: 76371				Prepara		2012-04-04					pared B	
				MS			Spike	. N	latrix		F	lec.
Param	F	Ć	L F	Result	Units	Dil.	Amou		esult	Rec.		imit
Benzene	<u>+</u>			111	mg/Kg		100		.7782	105		- 159.2
Toluene		ļ		137	mg/Kg		100		3.704	103		' - 157
Ethylbenzene		ļ		134	mg/Kg		100		1.288	103		- 158.2
Xylene		ļ		363	mg/Kg		300		0769	103		- 159.2 - 159.8
			DDI							104	10.0	- 109.0
Percent recovery is based on the	spike re	1) is based	i on the	-	-	-				
-			MSD			Spike	Matrix			.ec.		RPD
Param	F C		esult	Units	Dil.	Amount	Result			mit	RPD	Limit
Benzene	1		108	mg/Kg		100	5.7782			159.2	3	20
Toluene	1		135	mg/Kg		100	33.704			- 157	2	20
Ethylbenzene	1		133	mg/Kg		100	31.288			158.2	1	20
Xylene	1		358	mg/Kg	100	300	51.0769	9 102	70.8 -	159.8	1	20
Surrogate			M Res	ult Re			Dil. A	Spike mount	MS Rec.	MSD Rec.	Li	lec. mit
Trifluorotoluene (TFT)		I	94			9 , 9	100	100	94	92		- 133.9
4-Bromofluorobenzene (4-BFB)			99	.6 9	7.1 r	ng/Kg	100	100	100	97	72.6	- 144.1
and distant in the cab	ed Samp	ole: 2	Dat	e Analyz Preparat	ed: 20)12-04-05)12-04-05	···		· · ·	Analy	zed By: red By:	DA
QC Batch: 90014 Prep Batch: 76385			· . ·									~
Prep Batch: 76385				MS Result	Units	Dil	Spil Amo	-	Matrix Result	Rec		Rec. Jimit
Prep Batch: 76385 Param	. F			Result	Units		Amo	unt	Result	Rec. 93	. <u> </u>	imit
Prep Batch: 76385	F		1	Result 603	mg/K	g 1	Amo 250	unt)	Result 371	Rec. 93	. <u> </u>	
Prep Batch: 76385 Param DRO Percent recovery is based on the	F spike re	esult.	RPI MSD	Result 603) is based	mg/Ka	g 1 spike and Spike	Amo 25(I spike du Matri	unt) ıplicate x	Result 371 result. R		<u> </u>	imit
Prep Batch: 76385 Param DRO Percent recovery is based on the Param	F	esult. I C R	n RPI MSD Result	Result 603) is based Units	mg/Ka l on the Dil.	g <u>1</u> spike and Spike Amoun	Amor 250 I spike du Matri t Resul	unt) ıplicate x lt Rec	Result 371 result. R . Li	93 Lec. mit	. <u> </u>	imit 5 - 127 RPD Limit
Prep Batch: 76385 Param DRO Percent recovery is based on the	F spike re	esult. I C R	RPI MSD	Result 603) is based	mg/Ka l on the Dil.	g 1 spike and Spike	Amo 25(I spike du Matri	unt) ıplicate x	Result 371 result. R . Li	93 Lec.	<u> </u>	imit 5 - 127 RPD

114-6401354					12040201 State #2					umber: 3 Eddy C	
matrix spikes continued											
	MS	MS	3D			Spike	N	ЛS	MSD	F	lec.
Surrogate	Result	Res	ult U	Jnits	Dil.	Amount	R	.ec.	Rec.	L	imit
	MG	1	רוי			Quilto		10	MOD	т	
Surrogate	MS Result	MS Res		Jnits	Dil.	Spike Amount		AS .ec.	MSD Rec.		lec. mit
n-Tricosane Qar Qar	148	17		g/Kg	1	100		48	172	45.4	
				6/6						10.1	
Matrix Spike (MS-1) Spiked	d Sample:	: 293112									
QC Batch: 90033		Dat	e Analyze	ed: 2	2012-04-05				Ana	lyzed B	y: t
Prep Batch: 76405			Preparati		2012-04-05					pared B	-
			-						1		,
						о ч					
Param	Б		MS ogult	IIni+-	וית	Spike		atrix	Dar		ec.
Param Benzene	F			Units ng/Kg	Dil. 500	Amount 500		esult 8.788	Rec.	L	$\frac{\text{mit}}{150}$
Toluene		i i		ng/Kg ng/Kg		500 500		5.700 4.302	88	68.7	
Ethylbenzene				ng/Kg		500 500		±.302 2.072	90	71.6	
Xylene				ng/Kg		1500		6.25	99	70.8	
Percent recovery is based on the s											
rercent recovery is based on the s	spike resu		is based (on the	spike and	r spike dup	ncate	resuit.			
		MSD			Spike	Matrix			lec.		RF
Param	F C	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{L}	imit	RPD	Lin
Benzene	1	672	mg/Kg	500	500	128.788	109		- 159.2	7	20
Toluene	1	873	mg/Kg	500	500	334.302	108		7 - 157	12	20
Ethylbenzene	1	698	mg/Kg	500	500	182.072	103		- 158.2	10	20
Xylene	1	1900	mg/Kg	500	1500	286.25	108	70.8	- 159.8	7	2
Percent recovery is based on the s	pike resu	lt. RPD	is based	on the	spike and	spike dup	licate	result.			
I CICCITO ICCOVCI y IS DEBOU OIL DIC L		1		D		C -	:1	MC	MOD	п	
I creent recovery is based on the r		3.40	X/C			sp	ike	MS	MSD		ec.
		M			Tinito	D:1: A.m.	cince -	" D '	Det.	· ``T'':	
Surrogate		Rēsı	ilt Resi	ult			ount	Rec.	Rec.		mit
Surrogate Trifluorotoluene (TFT)		Rest 488	ilt Rest 8 482	ult 2 n	ng/Kg	500 50)0	98	96	71.4	133
Surrogate	- <i></i>	Resi	ilt Rest 8 482	ult 2 n	ng/Kg	500 50					133
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	d Sample:	Rësi 488 492	ilt Rest 8 482	ult 2 n	ng/Kg	500 50)0	98	96	71.4	133
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked	1 Sample:	Rest 488 492 291979	11t Rest 8 482 2 506	ult 2 n 6 n	ng/Kg	500 5(500 5()0	98	96 101	71.4 72.6	- 133 - 144
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked	1 Sample:	Resu 488 492 291979 Dat	ilt Rest 8 482	ult 2 m 6 n	ng/Kg ng/Kg	500 5(500 5()0	98	96 101 Anal	71.4	- 133 - 144 y: t
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034 Prep Batch: 76405	1 Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 133 - 144 y: t
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034	i Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 13 - 14
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034 Prep Batch: 76405	1 Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 13 - 14
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034 Prep Batch: 76405	1 Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 13: - 14:
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034 Prep Batch: 76405	1 Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 13 - 14
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034 Prep Batch: 76405	1 Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 13: - 144
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034 Prep Batch: 76405	1 Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 133 - 144 y: 1
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034 Prep Batch: 76405	d Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 133 - 144 y: 1
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spiked QC Batch: 90034 Prep Batch: 76405	d Sample:	Resu 488 492 291979 Dat	ult Resu 3 482 2 506 e Analyzee	ult 2 m 6 n	ng/Kg ng/Kg 012-04-05	500 5(500 5()0	98	96 101 Anal	71.4 72.6	- 13: - 144

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Report Date: April 11, 2012 114-6401354		4 - - -			12040201 . State #2	• • · · · · · · · · · · · · · · · · · ·		-	Page Nu	mber: 3 Eddy C	
matrix spikes continued			MS			Spike	м	atrix		F	lec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount		esult	Rec.		imit
						~					
Param	F	c	${f MS}$ Result	Units	Dil.	Spike Amount		atrix esult	Rec.		Rec. imit
GRO	r		27.8	mg/Kg		20.0		.4577	<u>62</u>		- 157.
Percent recovery is based on the s	spike res	·····			<u>.</u>						
·	-	M			Spike	Matrix			lec.		RPI
Param	FC		sult Units	Dil.	Amount		Rec.		imit	RPD	Lim
GRO	1		4.5 mg/Kg		20.0	15.4577	45		- 157.2	13	20
Percent recovery is based on the s	spike res	ult.					licate				
		:	MS N	ASD		Sn	ike	MS	MSD	F	Rec.
Surrogate				esult	Units	-	ount	Rec.	Rec.		imit
Trifluorotoluene (TFT)		1			mg/Kg		2	86	101		- 122.
4-Bromofluorobenzene (4-BFB)					mg/Kg		2	82	96		- 122.
QC Batch: 90054 Prep Batch: 76362		1	Date Analyz QC Prepara		2012-04-08 2012-04-04				•	vzed By ared By:	
	F	C			2012-04-04			atrix esult	•	ared By: F	
Prep Batch: 76362	F		QC Prepara	tion: 2	2012-04-04 Dil.	Spike	R		Prepa	red By: F L	: AF Rec. imit
Prep Batch: 76362 Param		C	QC Prepara MS Result 12600	tion: 2 Units mg/Ka	2012-04-04 Dil. g 100	Spike Amount 10000	R 2	esult 310	Prepa Rec.	red By: F L	: AF Rec. imit
Prep Batch: 76362 Param Chloride		C	QC Prepara MS Result 12600 RPD is base	tion: 2 Units mg/Ka	2012-04-04 Dil. g 100	Spike Amount 10000	R 2	esult 310 result.	Prepa Rec.	red By: F L	: AF Rec. imit - 120.
Prep Batch: 76362 Param Chloride Percent recovery is based on the s Param		C ult. M: Rei	QC Prepara MS Result 12600 RPD is base SD sult Units	Units <u>Units</u> <u>mg/K</u> d on the Dil.	Dil. g 100 e spike and Spike Amount	Spike Amount 10000 d spike dup Matrix Result	R 2 licate Rec.	esult 2310 result. R Li	Prepa Rec. 103 Rec. imit	red By F L 79.4 RPD	: AF lec. imit - 120. RPI Lim
Prep Batch: 76362 Param Chloride Percent recovery is based on the s Param Chloride	spike res F C	C ult. M: Rei 13:	QC Prepara MS Result 12600 RPD is base SD sult Units 300 mg/Kg	Units <u>Units</u> <u>mg/Ka</u> d on the <u>Dil.</u> <u>g 100</u>	Dil. g 100 e spike and Spike Amount 10000	Spike Amount 10000 I spike dup Matrix Result 2310	R 2 licate Rec. 110	esult 310 result. R Li 79.4	Prepa Rec. 103 Rec.	F F L 79.4	: AF Rec. <u>imit</u> - 120 RPI Lim
Prep Batch: 76362 Param	spike res F C	C M: Res 13: 13: 11t.	QC Prepara MS Result 12600 RPD is base SD sult Units 300 mg/Kg RPD is base 3085 Date Analyz	Units <u>mg/Ka</u> d on the <u>Dil.</u> <u>g</u> 100 d on the	Dil. g 100 e spike and Spike Amount 10000 e spike and	Spike Amount 10000 I spike dup Matrix Result 2310	R 2 licate Rec. 110	esult 310 result. R Li 79.4	Prepa Rec. 103 Rec. imit - 120.6	red By F L 79.4 RPD 5	: AF Rec. imit - 120. RPI Limi 20
Prep Batch: 76362 Param Chloride Percent recovery is based on the s Chloride Percent recovery is based on the s Matrix Spike (MS-1) Spiked	pike rest	C M: Res 13: 13: 11t.	QC Prepara MS Result 12600 RPD is base SD sult Units 300 mg/Kg RPD is base 3085	Units <u>mg/Ka</u> d on the <u>Dil.</u> <u>g</u> 100 d on the	Dil. g 100 e spike and Spike Amount 10000 e spike and	Spike Amount 10000 I spike dup Matrix Result 2310	R 2 licate Rec. 110	esult 310 result. R Li 79.4	Prepa Rec. 103 Rec. imit - 120.6	red By F L 79.4 RPD 5	: AF Rec. imit - 120 RPI Lim 20
Prep Batch: 76362 Param	pike rest	C M: Res 13: 13: 11t.	QC Prepara MS Result 12600 RPD is base SD sult Units 300 mg/Kg RPD is base 3085 Date Analyz	Units <u>mg/Ka</u> d on the <u>Dil.</u> <u>g</u> 100 d on the	Dil. g 100 e spike and Spike Amount 10000 e spike and	Spike Amount 10000 I spike dup Matrix Result 2310	R 2 licate Rec. 110	esult 310 result. R Li 79.4	Prepa Rec. 103 Rec. imit - 120.6	red By F L 79.4 RPD 5	: AF Rec. imit - 120 RPI Lim 20

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114-6401354	2012					12040201 State #2			1		mber: Eddy (
matrix spikes continued			,									
				MS			Spike		atrix			Re
Param		F	C	Result	Units	Dil.	Amount	R	esult	Rec.	I	Li1
				MS			Spike	м	atrix		1	R
Param		F	C	Result	Units	Dil.	Amount		esult	Rec.		_i
Benzene			1	5.78	mg/Kg		5.00		.0235	116	69.3	
Toluene			1	5.77	mg/Kg		5.00		.0490	115	68.	
Ethylbenzene			1 '	5.92	mg/Kg		5.00		.0250	118	71.6	
Xylene			1	17.7	mg/Kg		15.0		.0850	118	70.8	
Percent recovery is base	d on the spike	e res	sult. RI		-, -		d spike du					-
			MSD			Spike	Matrix		R	lec.		
Param	F	С	Resul		Dil.	Amount	Result	Rec.		imit	RPD	
Benzene		1	5.38	mg/Kg		5.00	< 0.0235	108		- 159.2	7	
Toluene		1	5.43	mg/Kg		5.00	< 0.0490	109		- 157	6	
Ethylbenzene		1	5.56	mg/Kg		5.00	< 0.0250	111		- 158.2	6	
Xylene		1	16.6	mg/Kg	5	15.0	< 0.0850	111	70.8	- 159.8	6	
	4-BFB)		1	5.38 5	.31	malka	٣	۲	100	106	72.6	
4-Bromofluorobenzene (1010)				.01	mg/Kg	5	5	108	106	12.0	
4-Bromofluorobenzene (Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426		ımpl	e: 2931	17 ate Analyz C Preparat	ed: 2	2012-04-06 2012-04-06			·	Analy	zed By red By	7: ':
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426			e: 2931 Di Q	17 ate Analyz C Preparat MS	ed: 2 tion: 2	2012-04-06 2012-04-06	Spike	M	atrix	Analy Prepa	zed By red By H	7: 7:
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426 Param		rmpl	le: 2931	17 ate Analyz C Preparat MS Result	ed: 2 tion: 2 Units	2012-04-06 2012-04-06 Dil.	Spike Amount	M	atrix esult	Analy Prepa Rec.	zed By red By H L	r: R
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426	Spiked Sa	F	e: 2931 D Q C	17 ate Analyz C Preparat MS Result 46.0	ed: 2 tion: 2 Units mg/K	2012-04-06 2012-04-06 <u>Dil.</u> g 5	Spike Amount 50.0	M R (atrix esult 0.82	Analy Prepa	zed By red By H	r: Ri
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based	Spiked Sa d on the spike	F e res	c c c sult. RH	17 ate Analyz C Preparat MS Result 46.0 PD is based	ed: 2 tion: 2 Units mg/K d on the	2012-04-06 2012-04-06 g 5 e spike and Spike	Spike Amount 50.0 d spike dup Matrix	M R (licate	atrix esult 3.82 result. R	Analy Prepa Rec. 78 ec.	zed By red By I L 28.2	r: Rin
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based Param	Spiked Sa	F	e: 2931 D Q C 1 mult. RH MSD Resul	17 ate Analyz C Preparat MS Result 46.0 PD is based t Units	ed: 2 tion: 2 Units mg/K d on the Dil.	2012-04-06 2012-04-06 g 5 e spike and Spike Amount	Spike Amount 50.0 d spike dup Matrix Result	M R dicate Rec.	atrix esult 3.82 result. Lin	Analy Prepa Rec. 78 ec. mit	zed By red By E 28.2 RPD	7: r: Re
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based Param GRO	Spiked Sa d on the spike F	F e res	e: 2931 Q Q <u>C</u> <u>1</u> MSD Resul 48.0	17 ate Analyz C Preparat MS Result 46.0 PD is based t Units mg/Kg	ed: 2 tion: 2 Units mg/Ki d on the Dil. 5 5	2012-04-06 2012-04-06 g 5 e spike and Spike Amount 50.0	Spike Amount 50.0 d spike dup Matrix Result 6.82	M R licate Rec. 96	atrix esult 3.82 result. Ru Lin 28.2 -	Analy Prepa Rec. 78 ec.	zed By red By I L 28.2	r:
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based Param	Spiked Sa d on the spike F	F e res	e: 2931 D Q C nult. RH MSD Resul 48.0 sult. RH	17 ate Analyz C Preparat MS Result 46.0 PD is based t Units mg/Kg PD is based	ed: 2 tion: 2 Units mg/K_1 d on the Dil. 5 d on the	2012-04-06 2012-04-06 g 5 e spike and Spike Amount 50.0	Spike Amount 50.0 d spike dup Matrix Result 6.82 d spike dup	M R dicate Rec. 96 dicate	atrix esult 3.82 result. Ru Lin 28.2 -	Analy Prepa Rec. 78 ec. mit - 157.2	zed By red By I L 28.2 RPD 4	r: Rin
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based Param GRO	Spiked Sa d on the spike F	F e res	e: 2931 Q Q <u>C</u> <u>1</u> MSD Resul <u>48.0</u> pult. RF	17 ate Analyz C Preparat MS Result 46.0 PD is based t Units mg/Kg PD is based MS M	ed: 2 tion: 2 Units mg/Ki d on the Dil. 5 5	2012-04-06 2012-04-06 g 5 e spike and Spike Amount 50.0	Spike Amount 50.0 d spike dup Matrix Result 6.82 d spike dup Spike dup	M R licate Rec. 96	atrix esult 3.82 result. Ru Lin 28.2 - result.	Analy Prepa Rec. 78 ec. mit	zed By red By I L 28.2 RPD 4	Ra Ra
Matrix Spike (MS-1) QC Batch: 90068 Prep Batch: 76426 Param GRO Percent recovery is based Param GRO Percent recovery is based	Spiked Sa d on the spike F	F e res	e: 2931 Q Q C 1 mult. RI MSD Resul 48.0 mult. RI R R R R	17 ate Analyz C Preparat MS Result 46.0 PD is based t Units mg/Kg PD is based MS M esult Re	ed: 2 tion: 2 Units mg/Ki d on the SD sult	2012-04-06 2012-04-06 g 5 e spike and Spike Amount 50.0 e spike and	Spike Amount 50.0 d spike dup Matrix Result 6.82 d spike dup Spike dup Spil. Am	M R licate Rec. 96 licate pike	atrix esult 3.82 result. R Lin 28.2 - result. MS	Analy Prepa Rec. 78 ec. mit - 157.2 MSD	zed By red By E 28.2 RPD 4	r: :: Ru

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Report Date: April 11, 2012 114-6401354

Work Order: 12040201 COG/Mesilla State #2

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T Ţ Page Number:-35 of 43 Eddy Co., NM

Calibration Standards

Standard (C	CCV-2)							
QC Batch:	89888		Date	Analyzed:	2012-04-02		Analy	vzed By: DA
				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	$\mathbf{U}\mathbf{nits}$	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	258	103	80 - 120	2012-04-02
			i i			/		

Standard (CCV-3)

QC Batch:	89888		Date	Analyzed:	2012-04-02		Analy	zed By: DA
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO	<u> </u>	1	mg/Kg	250	242	97	80 - 120	2012-04-02
Standard (CCV-4)							
QC Batch:	89888		Date	Analyzed:	2012-04-02		Analy	zed By: DA

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	e e la cara a compañía de la compañía				to the construction of the second				
				CCVs	\mathbf{CCVs}	\mathbf{CCVs}	Percent		
			:	True	Found	Percent	Recovery	Date	
Param	Flag		Units	Conc.	Conc.	Recovery	Limits	Analyzed	and the set
DRO		1	mg/Kg	250	244	98	80 - 120	2012-04-02	
			1						

Standard (CCV-2)

QC Batch:	89908		Date	Analyzed:	2012-04-03		Ana	lyzed By: tc
				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.15	115	80 - 120	2012-04-03

114-6401354	e: April 11, 201			Work Order COG/Mesil			Page Nu	Eddy Co., NM
Standard (CCV-3)							
QC Batch:	89908		Date	Analyzed:	2012-04-03		Ana	lyzed By: tc
D		C i	TT	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param GRO	Flag	Cert	Units mg/Kg	Conc. 1.00	Conc. 1.20	Recovery 120	Limits 80 - 120	Analyzed 2012-04-03
Standard (CCV-2)							
QC Batch:	89939		Date	Analyzed:	2012-04-03		Ana	lyzed By: tc
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
	1 145							
GRO		1	mg/Kg	1.00	1.03	103	80 - 120	2012-04-03
GRO Standard ((CCV-3)				1.03 2012-04-03	103		2012-04-03
GRO Standard ((CCV-3)					103 CCVs		,
GRO Standard (4 QC Batch:	CCV-3) 89939			Analyzed:	2012-04-03		Ana	,
GRO Standard (4 QC Batch: Param	CCV-3)			Analyzed: CCVs	2012-04-03 CCVs	CCVs	Ana Percent Recovery Limits	lyzed By: tc Date Analyzed
	CCV-3) 89939	1	Date .	Analyzed: CCVs True	2012-04-03 CCVs Found	CCVs Percent	Ana Percent Recovery	lyzed By: tc Date
GRO Standard (4 QC Batch: Param GRO	CCV-3) 89939 Flag	ı Cert	Date . Units	Analyzed: CCVs True Conc.	2012-04-03 CCVs Found Conc.	CCVs Percent Recovery	Ana Percent Recovery Limits	lyzed By: tc Date Analyzed
GRO Standard (4 QC Batch: Param	CCV-3) 89939 Flag CCV-1)	ı Cert	Date / Units mg/Kg	Analyzed: CCVs True Conc.	2012-04-03 CCVs Found Conc. 1.01	CCVs Percent Recovery	Ana Percent Recovery Limits 80 - 120	lyzed By: tc Date Analyzed
GRO Standard (4 QC Batch: Param GRO Standard (4	CCV-3) 89939 Flag CCV-1)	ı Cert	Date / Units mg/Kg	Analyzed: CCVs True Conc. 1.00	2012-04-03 CCVs Found Conc. 1.01	CCVs Percent Recovery	Ana Percent Recovery Limits 80 - 120 Ana Percent	lyzed By: tc Date <u>Analyzed</u> 2012-04-03 lyzed By: tc
GRO Standard (4 QC Batch: Param GRO Standard (4 QC Batch:	CCV-3) 89939 Flag CCV-1) 89940	L Cert L	Date . Units mg/Kg Date .	Analyzed: CCVs True Conc. 1.00 Analyzed: CCVs True	2012-04-03 CCVs Found Conc. 1.01 2012-04-03 CCVs Found	CCVs Percent Recovery 101	Ana Percent Recovery Limits 80 - 120 Ana Percent Recovery	lyzed By: tc Date <u>Analyzed</u> 2012-04-03 lyzed By: tc Date
GRO Standard (4 QC Batch: Param GRO Standard (4 QC Batch: Param	CCV-3) 89939 Flag CCV-1) 89940	ı Cert	Date . Units mg/Kg Date . Units	Analyzed: CCVs True Conc. 1.00 Analyzed: CCVs True Conc.	2012-04-03 CCVs Found Conc. 1.01 2012-04-03 CCVs Found Conc.	CCVs Percent Recovery 101 CCVs Percent Recovery	Ana Percent Recovery Limits 80 - 120 Ana Percent Recovery Limits	lyzed By: tc Date <u>Analyzed</u> 2012-04-03 lyzed By: tc Date Analyzed
GRO Standard (4 QC Batch: Param GRO Standard (4 QC Batch: Param Benzene	CCV-3) 89939 Flag CCV-1) 89940	L Cert L	Date J Units mg/Kg Date J Units mg/kg	Analyzed: CCVs True Conc. 1.00 Analyzed: CCVs True Conc. 0.100	2012-04-03 CCVs Found Conc. 1.01 2012-04-03 CCVs Found Conc. 0.105	CCVs Percent Recovery 101 CCVs Percent Recovery 105	Ana Percent Recovery Limits 80 - 120 Ana Percent Recovery Limits 80 - 120	lyzed By: tc Date <u>Analyzed</u> 2012-04-03 lyzed By: tc Date <u>Analyzed</u> 2012-04-03
GRO Standard (4 QC Batch: Param GRO Standard (4 QC Batch: Param Benzene Toluene	CCV-3) 89939 Flag CCV-1) 89940 F	Cert 1 lag Cert	Date J Units mg/Kg Date J Units mg/kg mg/kg	Analyzed: CCVs True Conc. 1.00 Analyzed: CCVs True Conc. 0.100 0.100	2012-04-03 CCVs Found Conc. 1.01 2012-04-03 CCVs Found Conc. 0.105 0.105	CCVs Percent Recovery 101 CCVs Percent Recovery 105 105	Ana Percent Recovery Limits 80 - 120 Ana Percent Recovery Limits 80 - 120 80 - 120	lyzed By: tc Date Analyzed 2012-04-03 lyzed By: tc Date Analyzed 2012-04-03 2012-04-03
GRO Standard (4 QC Batch: Param GRO Standard (4	CCV-3) 89939 Flag CCV-1) 89940 F	Cert 1 lag Cert	Date J Units mg/Kg Date J Units mg/kg	Analyzed: CCVs True Conc. 1.00 Analyzed: CCVs True Conc. 0.100 0.100 0.100	2012-04-03 CCVs Found Conc. 1.01 2012-04-03 CCVs Found Conc. 0.105	CCVs Percent Recovery 101 CCVs Percent Recovery 105	Ana Percent Recovery Limits 80 - 120 Ana Percent Recovery Limits 80 - 120	lyzed By: tc Date <u>Analyzed</u> 2012-04-03 lyzed By: tc Date <u>Analyzed</u> 2012-04-03

Report Date: April 11 114-6401354	, 2012			Work Order: COG/Mesilla				mber: 37 of 4 Eddy Co., NM
Standard (CCV-2)								
QC Batch: 89940			Date	Analyzed: 2	2012-04-03		Ana	lyzed By: tc
Param	Ele a	Cont	Units	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Benzene	Flag	Cert	mg/kg	Conc. 0.100	Conc. 0.104	Recovery 104	Limits 80 - 120	Analyzed 2012-04-03
Toluene		1	mg/kg	0.100	0.104	104	80 - 120	2012-04-03
Ethylbenzene		1	mg/kg	0.100	0.102	102	80 - 120	2012-04-03
Xylene		1	mg/kg	0.300	0.303	101	80 - 120	2012-04-03
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Fercent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.107	107	80 - 120	2012-04-03
Toluene		1	mg/kg	0.100	0.108	108	80 - 120	2012-04-03
Ethylbenzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-03
Xylene		1	mg/kg	0.300	0.317	106	80 - 120	2012-04-03
Standard (CCV-1)								
QC Batch: 89977			Date A	nalyzed: 20	012-04-04		Analy	zed By: DA
			 	CCVs	CCVs	CCVs	Percent	<u>.</u>
D	~		TT: te.	True	Found	Percent	Recovery	Date
Param Fla DRO	<u> </u>	ert	Units	Conc. 250	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	254	102	80 - 120	2012-04-04
			I . I					

go Daton. c			Date	i inarj zoar			1 Intary	200 DJ: DII
				\mathbf{CCVs}	CCVs	CCVs	Percent	
			ł	True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	236	94	80 - 120	2012-04-04

••••				COG/Mes	illa State #2			Eddy Co., NM
Standard (C	CV-3)							
QC Batch: 89	9977		Date	Analyzed:	2012-04-04		Analy	vzed By: DA
Param DRO	Flag	Cert	Units mg/Kg	CCVs True Conc. 250	CCVs Found Conc. 220	CCVs Percent Recovery 88	Percent Recovery Limits 80 - 120	Date Analyzed 2012-04-04
Standard (C	C V- 1)							
QC Batch: 89	} 994		Date	Analyzed:	2012-04-04		Ana	lyzed By: tc
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.03	103	80 - 120	2012-04-04
Standard (C	CV-2)							
			Date	Analyzed:	2012-04-04		Ana	lyzed By: tc
		·	Date	CCVs	CCVs	CCVs	Percent	
QC Batch: 89	9994	Cert		CCVs True	CCVs Found	Percent	Percent Recovery	Date
QC Batch: 89 Param		Cert	Date Units mg/Kg	CCVs	CCVs		Percent	
QC Batch: 89 Param GRO	9994 Flag		Units	CCVs True Conc.	CCVs Found Conc.	Percent Recovery	Percent Recovery Limits	Date Analyzed
QC Batch: 89 Param GRO Standard (CC	9994 Flag CV-3)		Units mg/Kg	CCVs True Conc. 1.00	CCVs Found Conc.	Percent Recovery	Percent Recovery Limits 80 - 120	Date Analyzed
QC Batch: 89 Param GRO Standard (C QC Batch: 89	9994 Flag CV-3) 9994	1	Units mg/Kg Date	CCVs True Conc. 1.00	CCVs Found Conc. 1.17 2012-04-04 CCVs Found	Percent Recovery	Percent Recovery Limits 80 - 120	Date Analyzed 2012-04-04
QC Batch: 89 Param GRO Standard (CC QC Batch: 89 Param	9994 Flag CV-3)		Units mg/Kg Date Units	CCVs True Conc. 1.00 Analyzed: CCVs True Conc.	CCVs Found Conc. 1.17 2012-04-04 CCVs Found Conc.	Percent Recovery 117 CCVs Percent Recovery	Percent Recovery Limits 80 - 120 Ana Percent Recovery Limits	Date Analyzed 2012-04-04 lyzed By: tc Date Analyzed
Standard (CO QC Batch: 89 Param GRO Standard (CO QC Batch: 89 Param GRO	9994 Flag CV-3) 9994	1	Units mg/Kg Date	CCVs True Conc. 1.00 Analyzed: CCVs True	CCVs Found Conc. 1.17 2012-04-04 CCVs Found	Percent Recovery 117 CCVs Percent	Percent Recovery Limits 80 - 120 Ana Percent Recovery	Date Analyzed 2012-04-04 lyzed By: tc Date
QC Batch: 89 Param GRO Standard (CC QC Batch: 89 Param GRO	9994 Flag CV-3) 9994 Flag	1 Cert	Units mg/Kg Date Units	CCVs True Conc. 1.00 Analyzed: CCVs True Conc.	CCVs Found Conc. 1.17 2012-04-04 CCVs Found Conc.	Percent Recovery 117 CCVs Percent Recovery	Percent Recovery Limits 80 - 120 Ana Percent Recovery Limits	Date Analyzed 2012-04-04 lyzed By: tc Date Analyzed
QC Batch: 89 Param GRO Standard (CC QC Batch: 89 Param	9994 Flag CV-3) 9994 Flag	1 Cert	Units mg/Kg Date Units	CCVs True Conc. 1.00 Analyzed: CCVs True Conc.	CCVs Found Conc. 1.17 2012-04-04 CCVs Found Conc.	Percent Recovery 117 CCVs Percent Recovery	Percent Recovery Limits 80 - 120 Ana Percent Recovery Limits	Date Analyzed 2012-04-04 lyzed By: tc Date Analyzed

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Report Date: April 11, 2012 114-6401354				ork Order: 1 OG/Mesilla	Page Number: 39 of 43 Eddy Co., NM			
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.100	100	80 - 120	2012-04-04
Toluene		1	mg/kg	0.100	0.0996	100	80 - 120	2012-04-04
Ethylbenzene		1	mg/kg	0.100	0.0983	98	80 - 120	2012-04-04
Xylene		1	mg/kg	0.300	0.296	99	80 - 120	2012-04-04

Standard (CCV-3)

QC Batch: 89995			Date An	alyzed: 20	Analyzed By: tc			
D	Dia -	0	TT: 14-	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-04
Toluene		1	mg/kg	0.100	0.105	105	80 - 120	2012-04-04
Ethylbenzene		1	mg/kg	0.100	0.104	104	80 - 120	2012-04-04
Xylene		1	mg/kg	0.300	0.312	104	80 - 120	2012-04-04

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Standard (CCV-2)

QC Batch:	90014		Date	Analyzed:	2012-04-05		Analy	zed By: DA	
				CCVs	CCVs	CCVs	Percent		
				True	Found	Percent	Recovery	Date	
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
DRO		1	mg/Kg	250	248	99	80 - 120	2012-04-05	

Standard (CCV-3)

QC Batch:	90014			Date .	Analyzed:	2012-04-05		Analy	zed By: DA
					CCVs	CCVs	CCVs	Percent	
				ľ	True	Found	Percent	Recovery	Date
Param	•	Flag	Cert	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
DRO			1	mg/Kg	250	228	91	80 - 120	2012-04-05

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Report Date: April 114-6401354	11, 2012				Work Order COG/Mesil	r: 12040201 la State #2			mber: 40 of Eddy Co., N
Standard (CCV-1)								
QC Batch: 90033			D	ate	Analyzed:	2012-04-05		Ana	lyzed By: t
					CCVs	CCVs	CCVs	Percent	
					True	Found	Percent	Recovery	Date
Param	Flag	Cert	U1	$_{ m nits}$	Conc.		Recovery	Limits	Analyze
Benzene		1	mg	;/kg	0.100	0.0942	94	80 - 120	2012-04-0
Toluene		1	mg	;/kg			95	80 - 120	2012-04-0
Ethylbenzene		1	mg	;/kg	0.100	0.0956	96	80 - 120	2012-04-0
Xylene		1	mg	;/kg	0.300	0.292	97	80 - 120	2012-04-
Standard (CCV-2)								
QC Batch: 90033	, ,		D	ate .	Analyzed:	2012-04-05		Ana	lyzed By: t
					CCVs	CCVs	CCVs	Percent	
			į		True	Found	Percent	Recovery	Date
Param	Flag	Cert	11	nits	Conc.		Recovery	Limits	Analyze
Benzene	1.198	1		/kg			112	80 - 120	2012-04-0
Toluene				/kg	0.100		112	80 - 120	2012-04-0
Ethylbenzene		1		/kg		0.113	113	80 - 120	2012-04-0
Xylene		1		;/¤g ;/kg			113	80 - 120	2012-04-0
Aylenc		1		/ 16	0.000	0.001		00 - 120	2012-04-0
Standard (CCV-1))								
QC Batch: 90034			D	ate .	Analyzed:	2012-04-05	•••••	Ana	lyzed By: t
					CCVs	CCVs	\mathbf{CCVs}	Percent	
•	-				True	Found	Percent	Recovery	Date
Param 1	Flag	Cert	Units		Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg		1.00	1.11	111	80 - 120	2012-04-0
Standard (CCV-2))								
QC Batch: 90034				ate 1	Analyzed:	2012-04-05		Anal	yzed By: t
					CCVs	CCVs	CCVs	Percent	
					True	Found	Percent	Recovery	Date
	-1	a .	Units		Conc.	Conc.	Recovery	Limits	Analyzed
Param I	Flag	Cert	Units		Conc.	Conc.	recovery	LIIIIIII	Anaryzec

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Report Dat 114-6401354	e: April 11, 2012 4		,	Work Order: COG/Mesilla				mber: 41 of 43 Eddy Co., NM
Standard ((ICV-1)	_						
QC Batch:	90054		Date A	nalyzed: 20	12-04-08		Analy	zed By: AR
~		~ .	÷.	ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param Chloride	Flag	Cert	Units mg/Kg	<u>Conc.</u> 100	Conc. 101	Recovery 101	Limits 85 - 115	Analyzed 2012-04-08
			mg/ rg	100	101	101	80 - 110	2012-04-00
QC Batch:	90054		Date A	nalyzed: 20 CCVs True	12-04-08 CCVs Found	CCVs Percent	Analy Percent Recovery	zed By: AR
D				True	rouna	rerceat	Recovery	Date
Param	Flag	Cert	Units	Conc.				Analyzed
Chloride Standard (Flag (CCV-1)	Cert	Units mg/Kg	Conc. 100	Conc. 99.3	Recovery 99	Limits 85 - 115	Analyzed 2012-04-08
Chloride	(CCV-1)	Cert	mg/Kg	100 nalyzed: 20 CCVs	Conc. 99.3 12-04-06 CCVs	Recovery 99 CCVs	Limits 85 - 115 Analy: Percent	2012-04-08 zed By: AG
Chloride Standard (QC Batch:	(CCV-1) 90067		mg/Kg Date An	100 nalyzed: 20 CCVs True	Conc. 99.3 12-04-06 CCVs Found	Recovery 99 CCVs Percent	Limits 85 - 115 Analy: Percent Recovery	2012-04-08 zed By: AG Date
Chloride Standard (QC Batch: Param	(CCV-1)	Cert	mg/Kg Date An Units	100 nalyzed: 20 CCVs True Conc.	Conc. 99.3 12-04-06 CCVs Found Conc.	Recovery 99 CCVs Percent Recovery	Limits 85 - 115 Analy: Percent Recovery Limits	2012-04-08 zed By: AG Date Analyzed
Chloride Standard (QC Batch:	(CCV-1) 90067	Cert	mg/Kg Date An Units mg/kg	100 nalyzed: 20 CCVs True	Conc. 99.3 12-04-06 CCVs Found	Recovery 99 CCVs Percent	Limits 85 - 115 Analy: Percent Recovery	2012-04-08 zed By: AG Date
Chloride Standard (QC Batch: Param Benzene Toluene Ethylbenzen	(CCV-1) 90067 Flag	Cert	mg/Kg Date An Units mg/kg mg/kg mg/kg	100 nalyzed: 20 CCVs True Conc. 0.100 0.100 0.100	Conc. 99.3 12-04-06 CCVs Found Conc. 0.106 0.106 0.107	Recovery 99 CCVs Percent Recovery 106 106 107	Limits 85 - 115 Analy: Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120	2012-04-08 zed By: AG Date Analyzed 2012-04-06 2012-04-06 2012-04-06
Chloride Standard (QC Batch: Param Benzene Toluene	(CCV-1) 90067 Flag	Cert 1	mg/Kg Date An Units mg/kg mg/kg	100 nalyzed: 20 CCVs True Conc. 0.100 0.100	Conc. 99.3 12-04-06 CCVs Found Conc. 0.106 0.106	Recovery 99 CCVs Percent Recovery 106 106	Limits 85 - 115 Analy: Percent Recovery Limits 80 - 120 80 - 120	2012-04-08 zed By: AG Date Analyzed 2012-04-06 2012-04-06
Chloride Standard (QC Batch: Param Benzene Toluene Ethylbenzen	(CCV-1) 90067 Flag	Cert 1 1	mg/Kg Date An Units mg/kg mg/kg mg/kg	100 nalyzed: 20 CCVs True Conc. 0.100 0.100 0.100	Conc. 99.3 12-04-06 CCVs Found Conc. 0.106 0.106 0.107	Recovery 99 CCVs Percent Recovery 106 106 107	Limits 85 - 115 Analy: Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120	2012-04-08 zed By: AG Date Analyzed 2012-04-06 2012-04-06 2012-04-06
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Chloride Standard (QC Batch: Param Benzene Toluene Ethylbenzen Xylene	(CCV-1) 90067 Flag 1e	Cert 1 1	mg/Kg Date An Units mg/kg mg/kg mg/kg	100 nalyzed: 20 CCVs True Conc. 0.100 0.100 0.100	Conc. 99.3 12-04-06 CCVs Found Conc. 0.106 0.107 0.321	Recovery 99 CCVs Percent Recovery 106 106 107	Limits 85 - 115 Analys Percent Recovery Limits 80 - 120 80 - 120 80 - 120 80 - 120 80 - 120	2012-04-08 zed By: AG Date Analyzed 2012-04-06 2012-04-06 2012-04-06
Chloride Standard (QC Batch: Param Benzene Toluene Ethylbenzen Xylene Standard (QC Batch:	(CCV-1) 90067 Flag te (CCV-2) 90067	Cert 1 1 1	mg/Kg Date An Units mg/kg mg/kg mg/kg mg/kg	100 nalyzed: 201 CCVs True Conc. 0.100 0.100 0.300 nalyzed: 201 CCVs True	Conc. 99.3 12-04-06 CCVs Found Conc. 0.106 0.107 0.321 12-04-06 CCVs Found	Recovery 99 CCVs Percent Recovery 106 107 107 107	Limits 85 - 115 Analys Percent Recovery Limits 80 - 120 80 - 120	2012-04-08 zed By: AG Date Analyzed 2012-04-06 2012-04-06 2012-04-06 2012-04-06 2012-04-06
Chloride Standard (QC Batch: Param Benzene Toluene Ethylbenzen Xylene Standard (QC Batch: Param	(CCV-1) 90067 Flag 1e	Cert 1 1 1 Cert	mg/Kg Date An Units mg/kg mg/kg mg/kg mg/kg	100 nalyzed: 201 CCVs True Conc. 0.100 0.100 0.300 nalyzed: 201 CCVs True Conc.	Conc. 99.3 12-04-06 CCVs Found Conc. 0.106 0.107 0.321 12-04-06 CCVs Found Conc.	Recovery 99 CCVs Percent Recovery 106 107 107 107 107 207 8 CCVs Percent Recovery	Limits 85 - 115 Analys Percent Recovery Limits 80 - 120 80	2012-04-08 zed By: AG Date Analyzed 2012-04-06 2012-04-06 2012-04-06 2012-04-06 2012-04-06 z012-04-06
Chloride Standard (QC Batch: Param Benzene Toluene Ethylbenzen Xylene Standard (QC Batch: Param Benzene	(CCV-1) 90067 Flag te (CCV-2) 90067	Cert 1 1 1 1 1 1 1	mg/Kg Date An Units mg/kg mg/kg mg/kg mg/kg (mg/kg (mg/kg) Date An Units (Units)	100 nalyzed: 201 CCVs True Conc. 0.100 0.100 0.300 nalyzed: 201 CCVs True Conc. 0.100	Conc. 99.3 12-04-06 CCVs Found Conc. 0.106 0.107 0.321 12-04-06 CCVs Found Conc. 0.115	Recovery 99 CCVs Percent Recovery 106 107 107 107 107 CCVs Percent Recovery 115	Limits 85 - 115 Analys Percent Recovery Limits 80 - 120 80 - 120	2012-04-08 zed By: AG Date Analyzed 2012-04-06 2012-04-06 2012-04-06 2012-04-06 2012-04-06 zo12-04-06
Chloride Standard (QC Batch: Param Benzene Toluene Ethylbenzen Xylene Standard (QC Batch: Param	(CCV-1) 90067 Flag te (CCV-2) 90067 Flag	Cert 1 1 1 Cert	mg/Kg Date An Units mg/kg mg/kg mg/kg mg/kg	100 nalyzed: 201 CCVs True Conc. 0.100 0.100 0.300 nalyzed: 201 CCVs True Conc.	Conc. 99.3 12-04-06 CCVs Found Conc. 0.106 0.107 0.321 12-04-06 CCVs Found Conc.	Recovery 99 CCVs Percent Recovery 106 107 107 107 107 207 8 CCVs Percent Recovery	Limits 85 - 115 Analys Percent Recovery Limits 80 - 120 80	2012-04-08 zed By: AG Date Analyzed 2012-04-06 2012-04-06 2012-04-06 2012-04-06 2012-04-06

Report Date: 114-6401354	April 11, 201	2			ler: 12040201 silla State #2	 		mber: 42 of Eddy Co., N
Standard (C	CV-1)							
QC Batch: 90	0068		Date	Analyzed:	2012-04-06		Analy	zed By: A
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyze
GRO	1 105	1	mg/Kg	1.00	1.14	1.14	80 - 120	2012-04-
QC Batch: 90				CCVs True	2012-04-06 CCVs Found	CCVs Percent	Percent Recovery	vzed By: A0 Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyze
GRO	<u> </u>	1	mg/Kg	1.00	1.06	106	80 - 120	2012-04-
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Report Date: April-11, 2012Work Order: -12040201Page Number: 43 of 43114-6401354COG/Mesilla State #2Eddy Co., NM

Appendix

Report Definitions

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

Laboratory Certifications

С	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-11-3	Midland

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J_Estimated concentration

Jb	The analyte is positively identified and the value is approximated between the SDL	
	and MQL. Sample contains less then times the concentration found in the	
	method blank. The result should be considered non-detect to the SDL.	
Je	Estimated concentration exceeding calibration range.	
\mathbf{Qc}	Calibration check outside of laboratory limits.	

- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
- U The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

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CLIENT NAM						1910 N. Big Midland, Te	exas 79705 • Fax (432) 682-3946		1-1	PR	SFI	TAX	IVE	TX1005 (Ext to C35)	1 1	Cd Cr Pb Hg Se				57 SP						H, TDS		
COG						Ike	Taiprez	INER				HOD			1 1	As Ba				270/6						08' D		
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Report Date: May 9, 2012

12042609

Work Order:

Summary Report

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

Project Location:Eddy Co., NMProject Name:COG/Mesilla State #2Project Number:114-6401354

Date Time Date Sample Description Matrix Taken Taken Received 295424 BH-1 @ AH-2 0-1' 2012-04-24 00:00 soil 2012-04-26 BH-1 @ AH-2 2-3' 295425 soil 2012-04-24 00:00 2012-04-26 295426 BH-1 @ AH-2 4-5' 2012-04-24 00:00 2012-04-26 soil 295427 BH-1 @ AH-2 6-7' 2012-04-24 00:00 2012-04-26 soil 295428 BH-1 @ AH-2 9-10' 2012-04-24 soil 00:00 2012-04-26

		j j	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)
295426 - BH-1 @ AH-2 4-5'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00 Qr,Qs

Sample: 295424 - BH-1 @ AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		3730	mg/Kg	4

Sample: 295425 - BH-1 @ AH-2 2-3'

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

Sample: 295426 - BH-1 @ AH-2 4-5'

continued ...



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Report Date: May	9, 2012	Work Order: 12042609	Page	Number: 2 of 2
sample 295426 con	tinued			
Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 295427 - BH-1 @ AH-2 6-7'

Param	Flag	Result	Units	RL
Chloride		169	mg/Kg	4

Sample: 295428 - BH-1 @ AH-2 9-10'

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



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AL ALLAN A	Mahanlaha	TRACEA	NALY	sis, In	c.M.M.			
20 50	01 Aberdeen Avenue, Sui 0 East Suinset Road, Suito 02 Basin Street, Suite A1 0Aquatic) 2501 Mayes Ro	e E El Paso, Midland,		800-378-1296 3. www.traceanaty	915-585-34 432-689-63 972-242-77	43 FAX 915-585-4 01 FAX 432-689-6	964	
		Ce	rtificat	ions				
WBE HUE	B NCTRCA	DBE NELA	P DoD	LELAP	Kansas	Oklahoma	ISO 17025	
Analytical and Quality Control Report								
Ike Tavarez Tetra Tech					Report	Date: May 9,	2012	
1910 N. Big Spr Midland, TX, 79	•				Work ()rder: 1204260		
Project Location Project Name: Project Number	COG/Mesilla S	tate #2						
Enclosed are the	Analytical Report	and Quality Contro	l Report for	the following Date	sample(s) s	ubmitted to Tra Time	ceAnalysis, Inc. Date	
Sample	Description	Ma	trix	Taken		Taken	Received	
295424	BH-1 @ AH-2 0	-1' so	il	2012-04-24	4	00:00	2012-04-26	
295425	BH-1 @ AH-2 2	-3' so	il	2012-04-24	4	00:00	2012-04-26	
295426	BH-1 @ AH-2 4	-5' so	il	2012-04-2	4	00:00	2012-04-26	

Т

295427

295428

BH-1 @ AH-2 6-7'

BH-1 @ AH-2 9-10'

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.

soil

soil

2012-04-24

2012-04-24

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

ibac

2012-04-26

2012-04-26

00:00

00:00

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

Report Contents

Case Narrative		3
Analytical Report		4
Sample 295424 (BH-1 @AH-2 0-1')		4
Sample 295425 (BH-1 @AH-2 2-3')		4
Sample 295426 (BH-1 @AH-2 4-5')		4
Sample 295427 (BH-1 @AH-2 6-7')		6
Sample 295428 (BH-1 @AH-2 9-10')		6
		U
Method Blanks		7
QC Batch 90687 - Method Blank (1)		7
		7
		7
-	· · · · · · · · · · · · · · · · · · ·	8
		8
	•••••••••••••••••••••••••••••••••••••••	0
Laboratory Control Spikes		9
		9
		9
QC Batch $90712 - LCS(1)$		10
QC Batch $90974 - LCS(1) \dots \dots$		10
QC Batch $91024 - LCS(1) \dots$		10
QC Batch 90687 - MS (1)		11
QC Batch 90689 - $MS(1)$		11
		12
	•••••••••••••••••••••••••••••••••••••••	13
QC Batch 91024 - MS (1)	• • • • • • • • • • • • • • • • • • • •	13
Calibration-Standards		-14:
	· · · · · · · · · · · · · · · · · · ·	14
	· · · · · · · · · · · · · · · · · · ·	14
-		-14
	•••••••••••••••••••••••••••••••••••••••	14
•	· · · · · · · · · · · · · · · · · · ·	14
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		15 15
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	• • • • • • • • • • • • • • • • • • • •	16
QO Batch 91024 - OOV (2)	•••••••••••••••••••••••••••••••••••••••	16
Appendix		17
		17
°	• • • • • • • • • • • • • • • • • • • •	17
8		17
Attachments		17

Page 2 of 17

Case Narrative

Samples for project COG/Mesilla State #2 were received by TraceAnalysis, Inc. on 2012-04-26 and assigned to work order 12042609. Samples for work order 12042609 were received intact at a temperature of 4.0 C.

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

		\mathbf{Prep}	Prep	Prep QC	
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	76942	2012-04-27 at 09:13	90687	2012-04-27 at 09:28
Chloride (Titration)	SM 4500-Cl B	77160	2012-05-04 at $09:09$	90974	2012-05-08 at 10:43
Chloride (Titration)	SM 4500-Cl B	77160	2012-05-04 at 09:09	91024	2012-05-09 at 10:46
TPH DRO - NEW	S 8015 D	76960	2012-04-30 at 14:38	90712	2012-04-30 at 14:40
TPH GRO	S 8015 D	76942	2012-04-27 at 09:13	90689	2012-04-30 at 09:56

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12042609 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:-May-9,-2012 114-6401354			Work Order: 12042609 COG/Mesilla State #2			Page-Number:-4 of 1 Eddy Co., NM	
Analy	tical Report	t					
Sample: 29	5424 - BH-1 @ AH-2 0-1	,					
Laboratory: Analysis: QC Batch:	Midland Chloride (Titration) 90974	Analytic Date An	alyzed:	SM 4500-Cl B 2012-05-08	Prep Method Analyzed By:		
Prep Batch:	77160	Sample	-	2012-05-04	Prepared By:	AR	
Parameter Chloride	Flag	Cert	RL Result	Units	Dilution	RL	
			3730	mg/Kg	10	4.00	
Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch:	5425 - BH-1 @ AH-2 2-3 Midland Chloride (Titration) 90974 77160	Analytic Date An	al Method: alyzed:	mg/Kg SM 4500-Cl B 2012-05-08 2012-05-04	Prep Method Analyzed By: Prepared By:	: N/A : AR	
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 90974 77160	Analytic Date An Sample I	al Method: alyzed: Preparation: RL	SM 4500-Cl B 2012-05-08 2012-05-04	Prep Method Analyzed By: Prepared By:	: N/A : AR AR	
Laboratory: Analysis: QC Batch:	Midland Chloride (Titration) 90974	Analytic Date An	al Method: alyzed: Preparation:	SM 4500-Cl B 2012-05-08	Prep Method Analyzed By:	: N/A : AR	
Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride	Midland Chloride (Titration) 90974 77160 Flag	Analytic Date An Sample D Cert	al Method: alyzed: Preparation: RL Result <20.0 2010 2012- 2012-	SM 4500-Cl B 2012-05-08 2012-05-04 Units mg/Kg	Prep Method Analyzed By: Prepared By: Dilution 5 Prep Method: Analyzed By:	: N/A : AR AR RL 4.00	
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 90974 77160 Flag v 5426 - BH-1 @ AH-2 4-5 Midland BTEX 90687 76942	Analytic Date An Sample I Cert , , Analytical Me Date Analyze Sample Prepa	al Method: alyzed: Preparation: RL Result <20.0 2012-	SM 4500-Cl B 2012-05-08 2012-05-04 <u>Units</u> mg/Kg 21B -04-27 -04-27	Prep Method Analyzed By: Prepared By: Dilution 5 Prep Method: Analyzed By: Prepared By:	: N/A : AR AR 4.00 S 5035 tc tc tc	
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Parameter Benzene	Midland Chloride (Titration) 90974 77160 Flag v 5426 - BH-1 @ AH-2 4-5 Midland BTEX 90687	Analytic Date An Sample D Cert , , Analytical Me Date Analyzed	ethod: S 802 d: 2012- ration: S 802 d: 2012- ration: 2012- RL Result <0.0200	SM 4500-Cl B 2012-05-08 2012-05-04 Units mg/Kg 21B -04-27 -04-27 -04-27 Units mg/Kg	Prep Method Analyzed By: Prepared By: Dilution 5 Prep Method: Analyzed By:	: N/A : AR AR 4.00 S 5035 tc tc tc RL 0.0200	
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: Chloride Sample: 29 Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch:	Midland Chloride (Titration) 90974 77160 Flag v 5426 - BH-1 @ AH-2 4-5 Midland BTEX 90687 76942 Flag v v	Analytic Date An Sample I Cert , , Analytical Me Date Analyze Sample Prepa	al Method: alyzed: Preparation: RL Result <20.0 2012-	SM 4500-Cl B 2012-05-08 2012-05-04 <u>Units</u> mg/Kg 21B -04-27 -04-27 -04-27 Units	Prep Method Analyzed By: Prepared By: Dilution 5 Prep Method: Analyzed By: Prepared By: Dilution	: N/A : AR AR <u>RL</u> 4.00	

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Report Date 114-6401354	: May 9, 2012			Work Orde COG/Mesi		Page Number: 5 of 17 Eddy Co., NM				
Surrogate Trifluorotolu	ene (TFT)	Flag	Cert	Result 2.17	Units mg/Kg	Dilution 1	Spike Amount 2.00	Percent Recovery 108	Li	overy mits 135.4
4-Bromofluor	obenzene (4-BFB)			2.09	mg/Kg	1	2.00	104	63.6	- 158.9
Sample: 29	5426 - BH-1 @ Al	H-2 4-5'		·						
Laboratory: Analysis: QC Batch: Prep Batch:	Dat	alytical Me te Analyze nple Prepa	ed:	SM 4500-C 2012-05-09 2012-05-04	l B	Analy	Method: zed By: red By:	N/A AR AR		
Parameter		Flag	Cert		RL Result	ı	Units	Dilution		\mathbf{RL}
Chloride	······································	U			<20.0		g/Kg	5		4.00
- Laboratory:	5426 - BH-1 @ Al Midland TPH DRO - NEW		Ar	nalytical M	lethod:	S 8015 D		Prep 1	Method:	N/A
-	Midland		Dε	nalytical M ate Analyz mple Prep	ed:	S 8015 D 2012-04-3(2012-04-3)		Analy	Method: zed By: red By:	N/A DA DA
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - NEW 90712 76960		Da Sa	ate Analyz mple Prep	ed: paration: RL	2012-04-3(2012-04-3()	Analy: Prepa	zed By:	DA DA
Laboratory: Analysis: QC Batch: Prep Batch: Parameter	Midland TPH DRO - NEW 90712 76960		Da Sa Cert	ate Analyz mple Prep	ed: paration: RL Result	2012-04-30 2012-04-30) Jnits	Analy: Prepar Dilution	zed By: red By:	DA DA RL
Laboratory: Analysis: QC Batch: Prep Batch: Parameter DRO Surrogate	Midland TPH DRO - NEW 90712 76960	Flag	Da Sa Cert	ate Analyz mple Prep Units	ed: paration: RL Result <50.0 Dilu	2012-04-3(2012-04-3)) Jnits g/Kg Spike imount	Analy Prepar Dilution 1 Percent Recovery	zed By: red By: Rec	DA DA RL 50.0 covery mits
Laboratory: Analysis: QC Batch: Prep Batch: Parameter DRO	Midland TPH DRO - NEW 90712 76960	Flag	Da Sa Cert	ate Analyz mple Prep	ed: paration: RL Result <50.0 Dilu	2012-04-3(2012-04-3(1 mį) Jnits g/Kg Spike	Analy: Prepar Dilution 1 Percent	zed By: red By: Rec	DA DA RL 50.0
Laboratory: Analysis: QC Batch: Prep Batch: Parameter DRO Surrogate n-Tricosane	Midland TPH DRO - NEW 90712 76960	Flag Cert F	Da Sa Cert	ate Analyz mple Prep Units	ed: paration: RL Result <50.0 Dilu	2012-04-3(2012-04-3)) Jnits g/Kg Spike imount	Analy Prepar Dilution 1 Percent Recovery	zed By: red By: Rec	DA DA RL 50.0 covery mits
Laboratory: Analysis: QC Batch: Prep Batch: Parameter DRO Surrogate n-Tricosane	Midland TPH DRO - NEW 90712 76960 Flag	Flag Cert F	Da Sa Cert 1 tesult 148 Analyti Date A	ate Analyz mple Prep Units	ed: RL Result <50.0 Dilu d: S 80 201 on: 201	2012-04-3(2012-04-3)) Jnits g/Kg Spike imount	Analy Prepar Dilution 1 Percent Recovery	zed By: red By: Rec Li 49.3	DA DA RL 50.0 covery mits
Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch: DRO Surrogate n-Tricosane Sample: 29 Laboratory: Analysis: QC Batch:	Midland TPH DRO - NEW 90712 76960 Flag 5426 - BH-1 @ AI Midland TPH GRO 90689 76942	Flag Cert F	Da Sa Cert 1 tesult 148 Analyti Date A	Units mg/Kg cal Metho nalyzed: Preparati	ed: paration: RL Result <50.0 Dilu d: S 80 201	2012-04-3(2012-04-3(m ition A 1 015 D 2-04-30 2-04-27) Jnits g/Kg Spike imount	Analys Prepar Dilution 1 Percent Recovery 148 Prep Me Analyze	zed By: red By: Rec Li 49.3	DA DA DA Sovery mits - 157.5 S 5035 tc

Report Date: May 9, 2012 114-6401354	1		er: 120426 illa State :	Page Number: 6 of 17 Eddy Co., NM				
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.32	mg/Kg	1	2.00	116	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	45.1 - 162.2
Sample: 295427 - BH-1 @ A	H-2 6-7'							
Laboratory: Midland Analysis: Chloride (Titration	n)	An	alytical M	ethod:	SM 4500-Cl	В	Prep M	lethod: N/A

Chloride		1		169	mg/Kg	5	4.00
Parameter	Fla	g	Cert	RL Result	Units	Dilution	\mathbf{RL}
QC Batch: Prep Batch:			Date Analyz Sample Prep		2012-05-09 2012-05-04	Analyzed By: Prepared By:	
Analysis:		i.	Anaryticar M		SIVI 4500-CI B	Frep Method.	,

Sample: 295428 - BH-1 @ AH-2 9-10'

Laboratory:	Midland		1				
Analysis:	Chloride (Titration))	Analyti	cal Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	91024		Date A	nalyzed:	2012-05-09	Analyzed By:	AR
Prep Batch:	p Batch: 77160		Sample	Preparation:	2012-05-04	Prepared By:	AR
			r	\mathbf{RL}			
 Parameter		lag	Cert	Result	Units	Dilution	RL
Chloride		υ		<20.0	mg/Kg	5	4.00

Report Date: May 9, 2012 114-6401354	1		Work Orde COG/Mesil					mber: 7 of 1 Eddy Co., NM	
Method Blanks									
Method Blank (1) QC Batch:	90687								
QC Batch: 90687 Prep Batch: 76942			Analyzed: reparation:	2012-04 2012-04				yzed By: tc ared By: tc	
Parameter	Flag		Cert		MDL Result		Units	\mathbf{RL}	
Benzene	Tiag				<0.00470		mg/Kg	0.02	
Toluene			1		<0.00470<0.00980		mg/Kg mg/Kg	0.02	
Ethylbenzene			1		< 0.00500		mg/Kg		
Xylene			1		< 0.0170		mg/Kg	0.02 0.02	
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
			1.00	/1/		2.00		78 - 123.6	
Triffuorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	10 - 123.0	
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg mg/Kg	1	2.00	92 90		
4-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch: QC Batch: 90689	90689		1.81 Analyzed:	mg/Kg 2012-04	-30		90 Analy	55.9 - 112.4 vzed By: tc	
4-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch: QC Batch: 90689 Prep Batch: 76942	90689		1.81	mg/Kg 2012-04	-30 -27		90 Analy	55.9 - 112.4	
4-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch: QC Batch: 90689 Prep Batch: 76942		QC P	1.81 Analyzed: reparation:	mg/Kg 2012-04	-30 -27 MDL		90 Analy Prepa	55.9 - 112.4 yzed By: tc ared By: tc	
4-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch: QC Batch: 90689 Prep Batch: 76942	90689 Flag	QC P	1.81 Analyzed:	mg/Kg 2012-04	-30 -27		90 Analy Prepa Units	55.9 - 112.4 yzed By: tc ared By: tc	
4-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch: QC Batch: 90689 Prep Batch: 76942 Parameter GRO	Flag	QC P	1.81 Analyzed: reparation: Cert	mg/Kg 2012-04 2012-04	1 -30 -27 MDL Result <1.22	2.00 Spike	90 Analy Prepa Units mg/Kg Percent	55.9 - 112.4 yzed By: tc ared By: tc RL 2 Recovery	
4-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch: QC Batch: 90689 Prep Batch: 76942 Parameter GRO Surrogate		QC P	1.81 Analyzed: reparation: Cert 1 Result	mg/Kg 2012-04 2012-04 Units	-30 -27 MDL Result <1.22 Dilution	2.00 Spike Amount	90 Analy Prepa Units mg/Kg Percent Recovery	255.9 - 112.4 yzed By: tc ared By: tc RL 2 Recovery Limits	
4-Bromofluorobenzene (4-BFB) Method Blank (1) QC Batch: QC Batch: 90689 Prep Batch: 76942 Parameter GRO	Flag	QC P	1.81 Analyzed: reparation: Cert	mg/Kg 2012-04 2012-04	1 -30 -27 MDL Result <1.22	2.00 Spike	90 Analy Prepa Units mg/Kg Percent	255.9 - 112.4 yzed By: tc ared By: tc RI 2 Recovery	

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Report Date: May 9, 114-6401354	2012		1 -	Vork Order VOG/Mesill		mber:-8 of 17 Eddy Co., NM		
Parameter		Flag		Cert		Result	Units	RL
DRO				1		<14.5	mg/Kg	50
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	<u>v</u>		109	mg/Kg	1	100	109	52 - 140.8
Method Blank (1) QC Batch: 90974 Prep Batch: 77160	QC I	Batch: 90974	Date A	nalyzed:	2012-05-08 2012-05-04			ed By: AR
Parameter		Flag		Cert		MDL Result	Units	RL
Chloride						<3.85	mg/Kg	4

Method Bla	nk (1) QC	Batch: 91024					
QC Batch:	91024		Date Analyzed:	2012-05-09		Analyzed By:	AR
Prep Batch:	77160		QC Preparation:	2012-05-04		Prepared By:	AR
					MDL		
Parameter		Flag	Cert		Result	Units	\mathbf{RL}
Chloride		a annan a sa saragana an a barra an an an an ar an an an ar an	na na antina br>Ny INSEE dia mampiasa dia mampiasa dia mampiasa dia mandritra dia mandritra dia mandritra dia mandritra dia mand		<3.85	mg/Kg	4

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Report Date: May 9, 2012 114-6401354

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Work Order: 12042609 COG/Mesilla State #2

Laboratory Control Spikes

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Laboratory Control Spike (LCS-1)

QC Batch: 90687 Prep Batch: 76942				Date Ana QC Prepa	•	2012-04-2 2012-04-2					yzed B ared B	
Param]	F	C	LCS Result	Units	Dil.	Spike Amount		trix sult	Rec.		lec. imit
Benzene			1	2.09	mg/Kg	; 1	2.00	<0.0	0470	104	86.5	- 124.9
Toluene			1	2.04	mg/Kg	; 1	2.00	<0.0	0980	102	84.7	- 122.5
Ethylbenzene			I,	2.00	mg/Kg	; 1	2.00	<0.0	0500	100	79.4	- 118.9
Xylene			1,	5.94	mg/Kg	; 1	6.00	<0.0	0170	99	79.5	- 118.9
Percent recovery is based on the	spike	e res	ult. F	PD is bas	sed on th	e spike an	d spike dupl	icate r	esult.	·		
			LCS			Spike	Matrix		Re			RPD
Param	F	С	Resu			Amount	Result	Rec.	Lin		RPD	Limi
Benzene		1	2.11	0,		2.00	< 0.00470	106	86.5 -		1	20
Toluene		1	2.06	0,		2.00	< 0.00980	103	84.7 -		1	20
Ethylbon mono		1	2.02			2.00	< 0.00500	101	79.4 -		1	20
											1	90
Xylene	spike	ı res		PD is bas	sed on th	6.00 e spike an					1	20
Ethylbenzene Xylene Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene: (4-BFB).		res	sult F	LCS I Result F 1.74	ed on th CSD Result 1.76	e spike an Units mg/Kg		icate r ce unt 0	esult. LCS Rec. 87	LCSD Rec. 88	F L	Rec. imit) - 127
Xylene Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 90689		e res		LCS I Result F 1.74	sed on th LCSD Result 1.76 1.81	e spike an Units mg/Kg	d spike dupl Spil Dil. Amo 1 2.0 1 2.0	icate r ce unt 0	esult. LCS Rec. 87	LCSD Rec. 88 90 Anal	F L 73.9	Rec. imit - 127 119.9
Xylene Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene: (4-BFB) Laboratory Control Spike (L QC Batch: 90689	CS-1	e res		RPD is bas LCS I Result F 1.74 1.74 Date Ana	sed on th LCSD Result 1.76 1.81	e spike an Units mg/Kg mg/Kg 2012-04-3 2012-04-2 s Dil.	d spike dupl Spil Dil. Amo 1 2.0 1 2.0	icate r ce unt 0 0 0 Ma Re	esult. LCS 87 87 87	LCSD Rec. 88 90 Anal	F L 73.9 70:4 yzed B ared B F L	tec. imit - 127 119.9 y: tc

114-6401354			COG/M	lesilla S	tate #2				Eddy (Co., NM
control spikes continued					Q., 11 .	Madel		Dec		חחח
Param	F C	LCSD Result		Dil.	Spike Amount	Matrix Result I	Rec.	Rec. Limit	RPD	RPD Limit
		LCSD			Spike	Matrix		Rec.		RPD
Param	F C	Result		Dil.	Amount			Limit	RPD	Limit
GRO	1	15.2	mg/Kg		20.0			3 - 105.7	14	20
Percent recovery is based on	the spike res	ult. RP	D is based	on the	spike and	spike duplie	ate resul	t.		
		L	CS LCS	\mathbf{SD}		Spike	LCS	LCSD	F	Rec.
Surrogate		Re	sult Res	ult (Jnits D	il. Amou			L	imit
Trifluorotoluene (TFT)			80 1.7		0, 0	1 2.00	90	88		111.2
4-Bromofluorobenzene (4-BF	<u>'B)</u>	1.	69 1.6	<u>54 m</u>	g/Kg	1 2.00	84	82	66.4	- 106.6
QC Batch: 90712 Prep Batch: 76960			te Analyze Preparati LCS)12-04-30)12-04-30	Spike	Matri	Prepa	zed By ared By	
Param	\mathbf{F}	Ċ	Result	Units	Dil.	Amount	Resul			Limit
DRO		1	278	mg/Kg		250	<14.			- 128.3
Percent recovery is based on	the spike res	ılt. RP	D is based			spike duplic	ate resul	t.		
	···· · F ···· · · ·				-					
Damarra	FC	LCSI Resul		Dil.	Spike	Matrix	D	Rec.	חחח	RPD
Param DRO	<u> </u>	280	mg/Kg		Amount 250	Result <14.5	Rec. 112 62	Limit 2 - 128.3	$\frac{\text{RPD}}{1}$	Limit 20
Percent recovery is based on									1	20
reicent recovery is based on	the spike res			on the	spike and	spike dupik	ate resul	ι.		
a :	LCS	LCS		•.	D :1	Spike	LCS	LCSD		lec.
Surrogate n-Tricosane	Result 122	Resu		nits		Amount	Rec.	Rec.		imit
	122	118	s mg,	/Kg	1	100	122	118	08.0	- 149.6
		1								
Laboratory Control Spike	(LCS-1)	ì								
	()	1								
QC Batch: 90974			te Analyze		12-05-08				zed By	
Prep Batch: 77160		; QC	Preparati	on: 20	12-05-04			Prepa	red By	AR
D	-		LCS	.		Spike	Mat			Rec.
Param	\mathbf{F}	C	\mathbf{Result}	Units	s Dil.	Amount	Res	ult Re	c.	Limit
Chloride	• • • • • • • • • • • • • • • • • • • •		2400	mg/K	g 1	2500	<3.	85 9	<u>م</u> ~	5 - 115

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Report Date: May 9, 2012	Work Order: 12042609	Page Number: 11 of 17
114-6401354	COG/Mesilla State #2	Eddy Co., NM

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

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Param	F	С	LCSD		D:1	Spike	Matrix	Dee	Rec.	חחח	RPD
Chloride	г	<u> </u>	Result 2480	Units mg/Kg		Amount 2500	Result <3.85	Rec. 99	Limit 85 - 115	RPD 3	Limit 20
			····							3	20
Percent recovery is based on	the spike	resu	It. RPD	is based c	n tne s <u>i</u>	orke and sp	pike dupin	cate resul	ιτ.		
Laboratory Control Spik	e (LCS-1)									
QC Batch: 91024			Date	Analyzed	: 201	2-05-09			Anal	yzed By	: AR
Prep Batch: 77160				Preparatio		2-05-04				ared By	
•									•	Ũ	
				LCS			Spike	Mat	rix		Rec.
Param		F	C	Result	Units	Dil.	Amoun			ec.	Limit
Chloride	·			2500	mg/Kg		2500	<3			5 - 115
Percent recovery is based on	the spike	Tesu	t BPD	is based o			nike duplie	eate resul	t.		
Terester receivery to Subcu on	une opine	1050	1	in proof o				10501			
_	_	~	LCSD			Spike	Matrix		Rec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2590	mg/Kg	1	2500	<3.85		85 - 115	4	20
Percent recovery is based on Matrix Spike (MS-1) QC Batch: 90687 Prep Batch: 76942	Spiked Sar		295646 Dat	e Analyzeo Preparatio	l: 201	2-04-27 2-04-27			Ana	alyzed B pared B	
				1S			Spike	Matrix			lec.
-	F	. (nits		mount	Result	Rec.		imit
							2.00	< 0.00470) 102	69.3	
Benzene					/Kg						- 159.2
Benzene Toluene			ı 2.	05 mg	/Kg	1	2.00	< 0.00980) 102	68.7	- 157
Param Benzene Toluene Ethylbenzene Xylene			1 2. 1 2.	05 mg 05 mg		1 1) 102) 102	68.7 71.6	

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	С	\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	Limit	RPD	Limit
Benzene		1	1.95	mg/Kg	1	2.00	< 0.00470	98	69.3 - 159.2	4	20
Toluene		1	1.96	mg/Kg	1	2.00	<0.00980	98	68.7 - 157	4	20
Ethylbenzene		1	2.01	mg/Kg	1	2.00	< 0.00500	100	71.6 - 158.2	2	20
Xylene		1	6.03	mg/Kg	1	6.00	<0.0170	100	70.8 - 159.8	2	20

Report Date: May 9, 2012 114-6401354		, 		k Order F/Mesil						F		mber: 1 Eddy C	
Percent recovery is based on the	he spike res	ult.	RPD is ba	used on	the s	oike and	spike	e duplica	ate re	sult.			
			MS	MSE				Spik		MS	MSD		lec.
Surrogate			Result	Resul		Units	Dil.	Amou	int	Rec.	Rec.		imit
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB	Qar Qa		$\begin{array}{c} 1.30 \\ 1.27 \end{array}$	1.95		ng/Kg	1	2		65 64	98		- 133.9
+DIOUIOUGOLOBEIISEIIE (+DI-D) Qsr Qs	• : 	1.21	1.86	11	ıg/Kg	1	2		64	93	12.0	- 144.1
,	iked Sampl	e: 2ģ											
QC Batch: 90689			Date Ana	-		2-04-30						lyzed B	
Prep Batch: 76942			QC Prep	aration	: 201	2-04-27					Prep	pared B	y: tc
_			MS				-	pike	Mat				lec.
Param	F	C	Result	Un		Dil.		nount	Res		Rec.		mit
GRO		1	16.5	mg/	/Kg	1	2	0.0	<1.	22	82	28.2	- 157.2
Percent recovery is based on t	he spike res	ult.	RPD is ba	sed on	the sp	oike and	spike	e duplica	ite re	sult.			
		1	MSD			Spike	M	latrix		R	lec.		RPD
Param	F	C		Units	Dil.	Amour			Rec.		mit	RPD	Limit
GRO	Qr,Qs Qr,Qs	1	2.24 r	ng/Kg	1	20.0		<1.22	11	28.2	- 157.2	152	20
Percent recovery is based on th	he spike res	ult.		+	the sr	ike and	spike	e duplica	te re	sult.			
v	•	1	MS	MSD	-		•	-			MOD	n	
Surrogate		ł		Result	T I.	nits l	Dil.	Spike Amoun		MS Rec.	MSD Rec.		ec. mit
Trifluorotoluene (TFT)			2.21	2.00		/Kg	$\frac{511}{1}$	2		110	100		- 122.3
4-Bromofluorobenzene (4-BFB)		1.95	1.79		/Kg	1	$\frac{2}{2}$		98	90		- 122.4
Matrix Spike (MS-1) Sp QC Batch: 90712	iked Sample	»: 29	5160 Date Anal	• • • • • • • • • •		2-04-30		a , soi			Analy	zed By:	·····································
Prep Batch: 76960		1	QC Prepa			2-04-30						red By:	DA
	ч	n	MS	17-		וית		Spike		trix	D		Rec.
Da	F		Result 323		nits	$\frac{\text{Dil.}}{1}$		mount		sult	Rec.		imit
Param		1	323	mg	/Kg	1		250		3.2	118	45.	5 - 127
DRO							• 1	. J	.	+1+1			
Param DRO Percent recovery is based on th			RPD is ba	sed on t	the sp	ike and	spike	e duplica	te res	oure.			
DRO		ılt.	RPD is ba	sed on t	the sp	ike and Spike	-	e duplica atrix	te re		ec.		RPD
DRO		ılt. M Re		its D	-		- Ma Re	atrix esult F	te res lec.	R Lii	ec. mit - 127	RPD	RPD Limit 20

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114-6401354			Work Order: COG/Mesilla		Page Nu		Eddy Co., NM		
Surrogate	MS Result	MSD Result		Dil.	Spike Amount	MS Rec.	MSD Rec.		lec. imit
n-Tricosane	130	130	mg/Kg	1	100	130	130		- 145.8
Matrix Spike (MS-1)	Spiked Sample	e: 295425							
QC Batch: 90974 Prep Batch: 77160			Analyzed: Preparation:	2012-05-08 2012-05-04				yzed By: ared By:	
Param	F		MS esult Unit	ts Dil.	Spike Amount	Matrix Result	Rec.		lec. imit
Chloride	L		$\frac{1}{550}$ mg/H		2500	<19.2	102		-120.6
Percent recovery is based of Param	- FC	MSD Result	Units Dil	Spike Amount	Matrix Result		Rec. Jimit	RPD	RPD Limit
Param Chloride	FC	Result 2700	mg/Kg 5	. Amount 2500	Result <19.2	Rec. I 108 79.4	limit - 120.6	RPD 6	RPD Limit 20
Param	FC	Result 2700 ult. RPD e: 295439 Date	mg/Kg 5 is based on th Analyzed:	. Amount 2500	Result <19.2	Rec. I 108 79.4	imit - 120.6		Limit 20
Param Chloride Percent recovery is based of Matrix Spike (MS-1) QC Batch: 91024	F C	Result 2700 ult. RPD e: 295439 Date QC P	mg/Kg 5 is based on th Analyzed: Preparation: MS	. Amount 2500 he spike and 2012-05-09	Result <19.2	Rec. I 108 79.4	imit - 120.6	6 yzed By: ared By:	Limit 20
Param Chloride Percent recovery is based of Matrix Spike (MS-1) QC Batch: 91024 Prep Batch: 77160 Param	F C	Result 2700 ult. RPD e: 295439 Date QC P N C Re	mg/Kg 5 is based on th Analyzed: Preparation: MS ssult Unit	2500 he spike and 2012-05-09 2012-05-04 ts Dil.	Result <19.2 spike dup Spike Amount	Rec. I 108 79.4 licate result Matrix Result	imit - 120.6 Analy Prepa Rec.	6 yzed By: ared By: R Li	Limit 20 : AR AR tec. imit
Param Chloride Percent recovery is based of Matrix Spike (MS-1) QC Batch: 91024 Prep Batch: 77160 Param Chloride	F C n the spike rest Spiked Sample F	Result 2700 ult. RPD e: 295439 Date QC P N C Re 30	mg/Kg 5 is based on the Analyzed: Preparation: MS esult Unit 090 mg/F	2012-05-09 2012-05-04 2012-05-04 ts Dil. Xg 5	Result <19.2 spike dup Spike Amount 2500	Rec. I 108 79.4 licate result Matrix Result 617	imit - 120.6 Analy Prepa Rec. 99	6 yzed By: ared By: R Li	Limit 20 : AR AR Rec.
Param Chloride Percent recovery is based of Matrix Spike (MS-1) QC Batch: 91024 Prep Batch: 77160 Param	F C n the spike rest Spiked Sample F	Result 2700 ult. RPD e: 295439 Date QC P M C Re 30 ult. RPD i	mg/Kg 5 is based on the Analyzed: Preparation: MS esult Unit 090 mg/F	<u>Amount</u> 2500 he spike and 2012-05-09 2012-05-04 ts Dil. Xg 5 he spike and	Result <19.2 spike dup Spike Amount 2500 spike dup	Rec. I 108 79.4 licate result Matrix Result 617 licate result	imit - 120.6 Analy Prepa Rec. 99	6 yzed By: ared By: R Li	Limit 20 : AR AR AR tec. : imit - 120.6
Param Chloride Percent recovery is based of Matrix Spike (MS-1) QC Batch: 91024 Prep Batch: 77160 Param Chloride	F C n the spike rest Spiked Sample F	Result 2700 ult. RPD e: 295439 Date QC P N C Re 30	mg/Kg 5 is based on the Analyzed: Preparation: MS esult Unit 090 mg/F	Amount 2500 he spike and 2012-05-09 2012-05-04 ts Dil. Kg 5 he spike and Spike	Result <19.2 spike dup Spike Amount 2500	Rec. I 108 79.4 licate result Matrix Result 617 licate result	imit - 120.6 Analy Prepa Rec. 99	6 yzed By: ared By: R Li	Limit 20 : AR AR tec. imit

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

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Report-Date:-May-9,-2012 - 114-6401354

----Work Order:-12042609--COG/Mesilla State #2 Page Number: 14 of 17 Eddy Co., NM

Calibration Standards

Standard (CCV-1)

QC Batch: 90687			Date An	alyzed: 20	12-04-27		Anal	yzed By: tc
			1	CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.108	108	80 - 120	2012-04-27
Toluene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-27
Ethylbenzene		1	mg/kg	0.100	0.103	103	80 - 120	2012-04-27
Xylene		1 .	mg/kg	0.300	0.309	103	80 - 120	2012-04-27

Standard (CCV-2)

QC Batch: 90687

Date Analyzed: 2012-04-27

Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Fercent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.110	110	80 - 120	2012-04-27
Toluene		1	mg/kg	0.100	0.107	107	80 - 120	2012-04-27
Ethylbenzene		1	mg/kg	0.100	0.102	102	80 - 120	2012-04-27
Xylene		1	mg/kg	0.300	0.309	103	80 - 120	2012-04-27

Standard (C	C V-1)	and a state of the two states of the states		an giga lakking men weri oʻnin toʻr 🖬 oʻnig i i aca	- un different dam etter gant i die able och menge av på	a maranda ata sana darandan mandar si ara ana ara bahada	e handeligingen of the state of a state of the	and a second
QC Batch:	90689		Date	Analyzed:	2012-04-30		Апа	lyzed By: tc
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.05	105	80 - 120	2012-04-30

Standard (CCV-2)

QC Batch: 90689

Date Analyzed: 2012-04-30

Analyzed By: tc

114-6401354 	May 9, 2012		(mber: 15 of 17 Eddy Co., NM			
				$\rm CCVs$	CCVs	CCVs	Percent	
_		~ .		True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.01	101	80 - 120	2012-04-30
Standard (C	CCV-2)							
QC Batch: 9	00712		Date	Analyzed:	2012-04-30		Analy	zed By: DA
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	271	1.08	80 - 120	2012-04-30
Standard (C	CV-3)							
Standard (C QC Batch: 9	·		Date 2	Analyzed:	2012-04-30		Analy	rzed By: DA
	·		Date 2	Analyzed: CCVs	2012-04-30 CCVs	CCVs	Analy Percent	rzed By: DA
	·			·		CCVs Percent	-	rzed By: DA Date
QC Batch: 9 Param	·	Cert	Units	CCVs True Conc.	CCVs Found Conc.	Percent Recovery	Percent Recovery Limits	Date Analyzed
QC Batch: 9	00712	Cert 1		CCVs True	CCVs Found	Percent	Percent Recovery	Date
QC Batch: 9 Param DRO Standard (C	90712 Flag CCV-1)		Units mg/Kg	CCVs True Conc. 250	CCVs Found Conc. 280	Percent Recovery 112	Percent Recovery Limits 80 - 120	Date Analyzed 2012-04-30
QC Batch: 9 Param DRO	90712 Flag CCV-1)		Units mg/Kg	CCVs True Conc. 250	CCVs Found Conc. 280 2012-05-08	Percent Recovery 112	Percent Recovery Limits 80 - 120	Date Analyzed 2012-04-30
QC Batch: 9 Param DRO Standard (C	90712 Flag CCV-1)		Units mg/Kg Date A	CCVs True Conc. 250 Analyzed: CCVs	CCVs Found Conc. 280 2012-05-08 CCVs	Percent Recovery 112	Percent Recovery Limits 80 - 120 Analy Percent	Date Analyzed 2012-04-30 zed By: AR
QC Batch: 9 Param DRO Standard (C QC Batch: 9	90712 Flag CCV-1) 90974	1	Units mg/Kg Date A	CCVs True Conc. 250 Analyzed: CCVs True	CCVs Found Conc. 280 2012-05-08 CCVs Found	Percent Recovery 112 CCVs Percent	Percent Recovery Limits 80 - 120 Analy Percent Recovery	Date Analyzed 2012-04-30 zed By: AR Date
QC Batch: 9 Param DRO Standard (C	90712 Flag CCV-1)		Units mg/Kg Date A	CCVs True Conc. 250 Analyzed: CCVs	CCVs Found Conc. 280 2012-05-08 CCVs	Percent Recovery 112	Percent Recovery Limits 80 - 120 Analy Percent	Date Analyzed 2012-04-30 zed By: AR

Standard (CCV-2)

QC Batch: 90974

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Date Analyzed: 2012-05-08

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Analyzed By: AR

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Report Date: M 114-6401354	fay 9, 2012			Vork Order: VOG/Mesilla			÷	Date Analyzed 2012-05-08 vzed By: AR Date Analyzed 2012-05-09 vzed By: AR
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	
Chloride	1.198	Cert	mg/Kg	100	99.4	<u>99</u>	85 - 115	the second s
Standard (CC QC Batch: 910			Date A	Analyzed: 2	012-05-09		Analy	zed By: AR
Param	Flag	Cert	' Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date
Chloride			mg/Kg	100	101	101	85 - 115	
Standard (CC QC Batch: 910			Date A	analyzed: 2	012-05-09		Analy	zed By: AR
				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	
Chloride			mg/Kg	100	99.3	99	85 - 115	2012-05-09

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Report Date: May 9, 2012 114-6401354 Work Order: 12042609 COG/Mesilla State #2 Page Number: 17 of 17 Eddy Co., NM

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
\mathbf{SDL}	Sample Detection Limit

Laboratory Certifications

~	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-11-3	Midland

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- __J__Estimated_concentration___

The analyte is positively identified and the value is approximated between the SDL
and MQL. Sample contains less then ten times the concentration found in the
method blank. The result should be considered non-detect to the SDL.
Estimated concentration exceeding calibration range.
Calibration check outside of laboratory limits.

- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
- U The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

Analysis	Request of Cl	nain of Custo	Jy Re		rd		PAGE: JF: ANALYSIS REQUEST (Circle or Specify Method No.)										
	1910 N. Bi Midland, 1	A TECH ig Spring St. Fexas 79705 59 • Fax (432) 682-3946				15 (Ext. to C35)	RCRA Metals Ag As Ba Cd Cr Pb Hg Se TCLP Metals Ag As Ba Cd Vr Pd Hg Se							TDS			
LIENT NAME: COG SITE MANAGER: IKe Tavarez		IERS		RVATIVE	TX1005	Ba C Ba C		50/624	70/625				Is, pH,				
PROJECT NO .: 14-6401354	PROJECT NAME:	(*	CONTAIL				Ag As Ag As	s olatiles	240/82	Vol. 82 108			5	os) //Catior			
LAB I.D. NUMBER DATE TIME	× Ede	Y Co., NM APLE IDENTIFICATION	NUMBER OF CONTAINERS	HCL HNO3	NONE	BTEX 8021B) APH 8015 1 PAH 8270	RCRA Metals TCLP Metals	TCLP Volatile TCLP Semi V	RCI GC.MS Vol. 8240/8260/624	GC.MS Semi PCB's 8080/6	Pest. 808/60	Chloride Gamma Sper	Alpha Beta (/	PLM (Asbestos) Major Anions/Cations, pH, TDS			
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Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.