

RECEIVED NOV - 2 2009 NMOCD ARTESIA

October 20, 2009

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

Re: Assessment Report and Closure Request for the St. Mary Land & Exploration Company, Tirano CNG State Tank Battery, Located in Unit N, Section 36, Township 24 South, Range 28 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. was contacted by St. Mary Land & Exploration Company (St. Mary) to assess a spill from the Tirano CNG State tank battery located in Unit N, Section 36, Township 24 South, Range 28 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.168056°, W 104.042778°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak occurred on January 19, 2009, when the dump valve on the heater treater failed, causing oil to dump out the gas vent line. Approximately 20 barrels of oil was released ad 2 barrels of oil was recovered with a vacuum truck. The valve was repaired and the impacted areas off the pad were excavated and the soil hauled to proper disposal. The initial C-141 is enclosed in Appendix A.

Groundwater

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

1910 North Big Spring, Midland, TX 79705 Fax 432.682.3946 www.tetratech.com



the New Mexico Office of the State Engineer iWATERS database, and other projects performed in this area, the depth to water would appear to be <50'.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 100 mg/kg.

Soil Assessment and Results

On January 29, 2009, Tetra Tech personnel inspected and sampled the spill areas on and off the facility pad. A total of seven (7) auger holes (AH-1 through AH-7) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. TPH concentrations exceeded the RRAL for TPH in AH-2 (0-1'), AH-3 (0-1'), AH-4 (0-1'), AH-6 (0-1.5') and AH-7 (0-3.5'). The TPH concentrations were not fully defined below the RRAL in AH-5, AH-6 and AH-7. Additionally, chloride concentrations were elevated to 2.5' in AH-1 and not defined in AH-5. All of the samples analyzed were below the RRAL for BTEX.

Since TPH and chloride concentrations were not defined in AH-5, AH-6 and AH-7, on March 3, 2009, a backhoe was used to install three test trenches in the vicinity of the auger holes and collect background samples from two areas away from the facility pad and spill areas. The trenches, labeled T-1 (AH-7), T-2 (AH-6) and T-3 (AH-5) defined the TPH impact in AH-6 and AH-7 and showed declining chloride concentrations in the vicinity of AH-5. The background concentrations of chloride ranged from <200 to 906 mg/kg. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The spill areas, auger hole locations and trench locations are shown on Figure 3. The sample results are summarized in Table 1.

Closure Request

The results of this assessment and remedial work were presented to the NMOCD in a meeting on May 30, 2009, in Artesia. It was agreed that AH-1 and AH-5 would be excavated to remove chloride impacted soils down to background concentrations and all TPH impacted soils above the RRAL would be removed. Once those tasks were completed, this site could be closed. On September 24 and 25, 2009, the soils were excavated as indicated in Table 1. The excavated soils were taken to Lea Land, Inc. for proper disposal. A copy of the Final C-141 is included in Appendix A.



Based upon the work performed at this site, St. Mary Land & Exploration Company requests this site be closed. If you require any additional information or have any questions or comments concerning this report, please call at (432) 682-4559.

Respectfully submitted, TETRA TECH, Inc.

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Tim Reed, P.G. Sr. Project Manager

cc: Mark Bondy – St. Mary Land Don Riggs – St. Mary Land

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TABLES

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able 1	nd & E	State T	nty, Nev
	lary La	ONG S	ly Cour
	St. N	Tirano	Edo

Sample	Date	Sample	Soll S	status		TPH (mg/kg	(Benzene	Toluene	Ethlybenzene	Xylene	Chloride
ē	Sampled	Depth (ft)	In-Situ	Removed	DRO	GRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-1	1/29/2009	0-1 BEB (1.0)		×	<50.0	<1.00	<50.0	-	1	1	•	1,360
	1/29/2009	1-1.5 BEB (1.0)		×	<50.0	<1.00	<50.0	-	-	-	۱	1,480
	1/29/2009	2-2.5 BEB (1.0)		×	1	•		•	-	1	1	1,620
	2/9/2009	3-3.5 BEB (1.0)	×		-	-		1	-	1		443
	2/9/2009	5-5.5 BEB (1.0)	×			-	•	,	•	•	I	483
AH-2	1/29/2009	0-1	- F	×	1,120	78.7	1,198.7	<0.0100	0.0379	0.0841	1.01	448
	1/29/2009	1-1.5	×		<50.0	5.71	5.71		-	•	•	302
	1/29/2009	2-2.5	×		-	•	-	-	-	-	1	353
											4	
AH-3	1/29/2009	0-1-	- 141 - 1 - 1 - 1 - 1	×	3,030	563	3,593	<0.100	2.51	3.56	8.77	<200
	1/29/2009	1-1.5	×		<50.0	14.5	14.5		1	4	•	<200
	1/29/2009	2-2.5	X		-	,	_		-		•	213
AH-4	1/29/2009	0-1		×	236	9.74	245.74	-	-	-	-	<200
	1/29/2009	1-1.5	×		<50.0	2.64	2.64	-	-	•	1	356
	1/29/2009	2-2.5	×		-	-		•	-	•	-	272
AH-5	1/29/2009	0-1 BEB (1.5)		×	<50.0	<1.00	<50.0	-	-	•	1	2,660
	1/29/2009	1-1.5 BEB (1.5)		×	<50.0	<1.00	<50.0			•		1,730
	1/29/2009	2-2.5 BEB (1.5)		×	-	-	•	1	-	•	-	1,670
	1/29/2009	3-3.5 BEB (1.5)		×	,		1	1	,	•		1,680
T-3	3/3/2009	4.0		×	ł		-		-	•		1,270
	3/3/2009	5.0		×	١	-	-	-	•	-	-	1,800
	3/3/2009	6.0		×		•	•	1	1	•	1	1,530
	3/3/2009	8.0	×		-	-		-	,	•	,	886
	3/3/2009	10.0	×		-	•		-	-	-	-	784
AH-6	1/29/2009	0-1 BEB (1.0)		×	≃770	4.87	774.87	-	•	1	-	<200
	1/29/2009	1-1.5 BEB (1.0)		, X	405.	2.82	407.82	•	•	•	ŀ	<200
			•	-		1						
T-2	3/3/2009	2.0		Χ.	102	2.96	104.96		1	,		
	3/3/2009	3.0	×		<50.0	<1.00	<50.0			4	1	•

(-) Not Analyzed (BG) Background

Sample	Date	Sample	Soil S	itatus		PH (mg/kg		Benzene	Toluene	Ethlybenzene	Xylene	Chloride
Q	Sampled	Depth (ft)	In-Situ	Removed	DRO	GRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
4H-7	1/29/2009	:-0-1 -		×	7,800	5;280	13,080	3.54	36.7	33.3	76.9	<200
	1/29/2009	11:4%5		×	473	517	066	<0.100	1.40	2.73	6.07	<200
	1/29/2009	. 2-2:5		×	503	250	753		•	-		<200
	2/9/2009	. 3-3.5		×	348.	36.7	384.7	-	I	-	•	•
T-1	3/3/2009	4.0	×		<50.0	1.83	1.83	-	•	-	-	-
											-	
Background #1	3/3/2009	0-1.0	×		,		•	1	1	,	I	<200
	3/3/2009	2.0	×		1		1	-	I	1	1	<200
	3/3/2009	4.0	×			•		ı	1	•	•	297
	3/3/2009	6.0	×		•	•	1	-	-	•	•	<200
	3/3/2009	8.0	×		•	•	1	•		-	-	<200
	3/3/2009	10.0	×		,	•	I	-	•	-	•	213
	3/3/2009	12.0	×		-	1	-	+	I	-	-	<200
Background #2	3/3/2009	0-1.0	×		•	•	-	-	•	-	-	<200
	3/3/2009	2.0	×			•	•	1	-	r	-	229
-	3/3/2009	4.0	×		1	,	1	-	•	-	-	609
	3/3/2009	6.0	×		•	•	F	,	-	•	-	906
	3/3/2009	8.0	×		•	-	-	Ţ	-	-	1	890

(-) Not Analyzed (BG) Background

St. Mary Land & Exploration Tirano CNG State Tank Battery Eddy County, New Mexico

Table 1

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APPENDIX A

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

State of New Mexico Energy Minerals and Natural Resources

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Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

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

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			Rele	ease Notific	catio	n and Co	orrective A	ction				
						OPERA	ſOR	[Initia	l Report	\boxtimes	Final Report
Name of Co	mpany S	t Mary Land	d & Expl	oration Co.		Contact	Donna Huddle	eston		•		
Address 330	00 N. A Sti	eet, Bldg. 7,	Ste. 200	, Midland, TX 7	9705	Telephone N	No. 432-688-	1789				
Facility Nar	ne <i>Tiran</i>	o CNG Stat	te			Facility Typ	e Tank Batt	tery			.	
Surface Ow	ner Sta	te of New M	<i>l</i> exico	Mineral (Owner				Lease N	lo.		
				LOCA	ATIO	N OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	Nort	h/South Line	Feet from the	East/W	est Line	County		
N	36	24E	28E	660		South	1980	We	est		Eddy	
L		/· 	La	titude	1	Longitud	e					
				NAT	ruri	E OF REL	EASE					
Type of Rele	ase Proc	duced Water	-	· · · · · · · · · · · · · · · · · · ·		Volume of	Release 20bb/s		Volume R	lecovered	2bbls	
Source of Re	lease 4' x	20' Heater t	reater			Date and F	lour of Occurrenc	e	Date and 1/19/09	Hour of Di: 1:00am	scovery	,
Was Immedia	ate Notice (Given?	Yes [] No 🔲 Not R	equired	If YES, To Mike Brat	Whom? cher w/NMOCD	left voi	cemail)			
By Whom?	Bill Hearn	ne				Date and H	lour 1/19/09 1	1:07am		<u> </u>		
Was a Water	course Read	ched?		 1 No		If YES, Vo	lume Impacting I	the Water	rcourse.			
		ـــــــــــــــــــــــــــــــــــــ										
Describe Cau Cause: He line. Repair	ise of Probl ater treate oil dump o	em and Reme er dump failu on heater tre	dial Actio re. Oil du ater and i	n Taken.* mp failed to ope return wells to p	erate p roduct	roperly, filled tion. Vacuum	gas section of h truck picked up	neater tre approx.	eater and 2bbls off	dumped o ground	il out c	of gas vent
Describe Are Affected are Cleanup Ac Soils were e	a Affected a: 30'x30' tion Taker excavated	and Cleanup @vent line a Washed do by Tetra Teo	Action Tal and 300'x own treat ch and ha	ken.* 12' South of ve er and used vac uled of for prop	ent. To suum ti er disp	tal area 4800 ruck to pick up posal.	sq.ft. in pasture o oil.	<u>.</u>		<u> </u>		
I hereby certi regulations a public health should their o or the environ federal, state,	fy that the Il operators or the envi operations f iment. In a or local la	information g are required t ronment. The nave failed to addition, NMC ws and/or reg	iven above to report and acceptane adequately DCD accept ulations	e is true and comp nd/or file certain ce of a C-141 rep v investigate and a otance of a C-141	olete to release ort by t remedi report	the best of my notifications a the NMOCD m ate contaminati does not reliev	knowledge and u nd perform correc arked as "Final R on that pose a thr e the operator of	inderstan ctive actio teport" do reat to gro responsil	d that purs ons for rele bes not reli bund water bility for c	eases which eases which eve the ope , surface w ompliance	10CD r n may e erator o rater, hu with an	ules and ndanger f liability ıman health y other
		Time k					<u>OIL CON</u>	<u>SE</u> RV.	ATION	DIVISI	<u>on</u>	
Printed Name	Tim R	eed (agent f	or St. Ma	ry Land)		Approved by	District Supervis	sor:				
Title:	Tetra	Tech				Approval Da	te:	E	Expiration	Date:		
E-mail Addre	ess: <u>timot</u>	hy.reed@tet	ratech.co	<u>m</u>		Conditions o	f Approval:			Attached	d 🗌	
Date: 10/2	2/2009 43	2-682-4559							· · · ·			
* Attach Addi	uonal She	ets it inecess	sarv									

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

Form C-141 Revised October 10, 2003

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

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

			Rel	ease Notific	atio	n and Co	orrective A	ction			
						OPERA'	ΓOR	D Initi	al Report	П	Final Report
Name of C	ompany St	Mary Land	& Explo	ration Co.		Contact Do	na Huddleston				
Address	3300 N. A	Street. Bldg	7. Ste. 2	00 Midland T	x	Telephone l	No. (432)688-1'	789			
Facility Na	me Tirano	CNG State				Facility Typ	e Tank Battery				
Surface Ov	vner State o	of New Mexi	60	Mineral (Owner			Lease 1	No.		
	_			LOCA	ATIO	NOFRE	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North	/South Line	Feet from the	East/West Line	County		
N	36	24S	28E	660	Sout	h	1980	West	Eddy		
	- J	·	La	titude	J <u></u>	Longitud	le	·	4		
				NAT	TIRE		FASF				
Type of Rel	case OII				UNP	Volume of	Release 20 hbls	Volume	Recovered	bbls	
Source of R	elease 4' X	20' Heater T	reater			Date and I	lour of Occurrence	ce1/19/2020ste and	Hour of Di	scover	y1 AM 1/19
Was Immed	iate Notice	Given?			•	If YES, To	Whom?		· · · · · · · · ·		
		<u>X</u>	JYes L	JNO LJNOTR	equired		- Mike Bratche	r (left voicemail)			
By Whom?	Bill Hearr	<u>ie</u>				Date and I	<u>Iour 1/19/09@</u>	<u>11:07 AM</u>			
Was a Wate	rcourse Rea	iched?	Yes 🛛	No		It YES, V	olume Impacting	the Watercourse.			
If a Wateroo	urse was In	nnacted Desc	ribe Fully	*							
Describe Ca Heater Tre Repair oil	use of Prob ater dump dump on h	lem and Reme failure. Oil eater treater	ial Actio dump fai and retur	n Taken.* led to operate p n wells to produ	roperly iction.	/, filled gas s Vacuum tru	ection of heater ick picked up ag	treater and dump pprox 2 bbls off a	ed oil out ground.	of gas	vent line.
Describe Ar Affected a Cleanup A	ea Affected rea: 30' X ction Take	and Cleanup 30' @ vent l en: Washed	Action Ta ine and 3 down trea	ken.* 00' x 12' South ater and used Va	of Ven	t. Total area truck to pick	4800 sq. ft. in j up oil. Plan to	pasture. remediate affect	ed area.		
I hereby cer regulations public healt should their or the enviro federal, state	tify that the all operators h or the env operations onment. In e, or local la	information g s are required ironment. Th have failed to addition, NM aws and/or reg	tiven abov to report a e acceptan adequatel OCD acce pulations.	e is true and com und/or file certain ice of a C-141 rep y investigate and ptance of a C-141	plete to release ort by t remedia report	the best of my notifications is the NMOCD r ate contaminat does not relie	/ knowledge and and perform corre narked as "Final I ion that pose a th ve the operator of	understand that pu ective actions for re Report [®] does not re reat to ground wat f responsibility for	rsuant to NI sleases which theve the oper, surface we compliance	viOCD h may erator vater, h with a	rules and endanger of liability numan health ny other
Signature:	lorn	w Lh	dell	um			OIL CON	ISERVATION	I DIVISI	ON	
Printed Nan	ne:Donna I	Iuddleston				Approved by	y District Supervi	isor:			
Title: Pro	duction Te	ch		·····		Approval D	ate:	Expiratio	n Date:		
E-mail Add	ress: dhudd	leston@stm	ryland.co	om		Conditions	of Approval:		Attach	ed 🗌	
Date: 01/20)/2009		Phon	e: (432)688-178	9						

Date: 01/20/2009

* Attach Additional Sheets If Necessary

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APPENDIX B

Summary Report

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

Report Date: February 6, 2009

Work Order: 9013031

Project Location:	Eddy County, NM
Project Name:	St. Mary/Tirano CNG
Project Number:	115-6403679

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
186225	AH-1 0-1' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186226	AH-1 1-1.5' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186227	AH-1 2-2.5' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186228	AH-2 0-1'	soil	2009-01-29	00:00	2009-01-30
186229	AH-2 1-1.5'	soil	2009-01-29	00:00	2009-01-30
186230	AH-2 2-2.5'	soil	2009-01-29	00:00	2009 - 01-30
186231	AH-3 0-1'	soil	2009-01-29	00:00	2009-01-30
186232	AH-3 1-1.5'	soil	2009-01-29	00:00	2009-01-30
186233	AH-3 2-2.5'	soil	2009-01-29	00:00	2009-01-30
186234	AH-4 0-1'	soil	2009-01-29	00:00	2009-01-30
186235	AH-4 1-1.5'	soil	2009-01-29	00:00	2009-01-30
186236	AH-4 2-2.5'	soil	2009-01-29	00:00	2009-01-30
186237	AH-5 0-1' (1.5' BEB)	soil	2009-01-29	00:00	2009-01-30
186238	AH-5 1-1.5' (1.5' BEB)	soil	2009-01-29	00:00	2009-01-30
186239	AH-5 2-2.5' (1.5' BEB)	soil	2009-01-29	00:00	2009-01-30
186240	AH-5 3-3.5' (1.5' BEB)	soil	2009-01-29	00:00	2009-01-30
186241	AH-6 0-1' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186242	AH-6 1-1.5' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186243	AH-7 0-1'	\mathbf{soil}	2009-01-29	00:00	2009-01-30
186244	AH-7 1-1.5'	soil	2009-01-29	00:00	2009-01-30
186245	AH-7 2-2.5'	soil	2009-01-29	00:00	2009-01-30

		I	BTEX	/	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO (
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
186225 - AH-1 0-1' (1' BEB)	······				<50.0	<1.00
186226 - AH-1 1-1.5' (1' BEB)				[<50.0	<1.00
186228 - AH-2 0-1'					1120	78.7
186229 - AH-2 1-1.5'					<50.0	5.71

continued

Report Date: February 6, 2009	Work Order: 9013031	Page Number: 2 of 4
115-6403679	St. Mary/Tirano CNG	Eddy County, NM

... continued

]	BTEX		TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene [DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
186231 - AH-3 0-1'	< 0.100	2.51	3.56	8.77	3030	563
186232 - AH-3 1-1.5'					< 50.0	14.5
186234 - AH-4 0-1'					236	9.74
186235 - AH-4 1-1.5'					<50.0	2.64
186237 - AH-5 0-1' (1.5' BEB)				1	<50.0	<1.00
186238 - AH-5 1-1.5' (1.5' BEB)					<50.0	<1.00
186241 - AH-6 0-1' (1' BEB)					770	4.87
186242 - AH-6 1-1.5' (1' BEB)	•				405	2.82
186243 - AH-7 0-1'	3.54	36.7	33.3	76.9	7800	5280
186244 - AH-7 1-1.5'	< 0.100	1.40	2.73	6.07	473	517
186245 - AH-7 2-2.5'					503	250

Sample: 186225 - AH-1 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride	· · · · · · · · · · · · · · · · · · ·	1360	mg/Kg	4.00

Sample: 186226 - AH-1 1-1.5' (1' BEB)

Param _	Flag	Result	Units	RL
Chloride		1480	mg/Kg	4.00

Sample: 186227 - AH-1 2-2.5' (1' BEB)

Param	Flag	Result	Units	\mathbf{RL}
Chloride		1620	mg/Kg	4.00

Sample: 186228 - AH-2 0-1'

Param	Flag	Result	Units	\mathbf{RL}
Chloride		448	mg/Kg	4.00

Sample: 186229 - AH-2 1-1.5'

Param	Flag	Result	Units	\mathbf{RL}
Chloride		302	mg/Kg	4.00

Sample: 186230 - AH-2 2-2.5'

Report Date: Febru 115-6403679	ary 6, 2009	Work Order: 9013031 St. Mary/Tirano CNG	Page Ed	Number: 3 of 4 dy County, NM
Param	Flag	Result	Units	RL
Chloride		353	mg/Kg	4.00
Sample: 186231 -	AH-3 0-1'			
Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00
Sample: 186232 -	AH-3 1-1.5'			
Param	Flag	Result	Units	\mathbf{RL}
Chloride		<200	mg/Kg	4.00
Sample: 186233 -	· AH-3 2-2.5'			
Param	Flag	Result	Units	BL
Chloride		213	mg/Kg	4.00
Sample: 186234 -	· AH-4 0-1'			
Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00
Sample: 186235 -	AH-4 1-1.5'			
Param	Flag	Result	Units	RL
Chloride		356	mg/Kg	4.00
Sample: 186236 -	- AH-4 2-2.5'			
Param	Flag	Result	Units	RL
Chloride		272	mg/Kg	4.00
Sample: 186237 -	- AH-5 0-1' (1.5' BE	В)		
Param	Flag	Result	Units	RL
Chloride		2660	mg/Kg	4.00

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Report Date: Febru 115-6403679	uary 6, 2009	Work Order: 9013031 St. Mary/Tirano CNG	Page I Edd	Number: 4 of 4 ly County, NM
Sample: 186238	- AH-5 1-1.5' (1.5' BE	B)		
Param	Flag	Result	Units	\mathbf{RL}
Chloride		1730	mg/Kg	4.00
Sample: 186239	- AH-5 2-2.5' (1.5' BE	B)		
Param	Flag	Result	Units	RL
Chloride		1670	mg/Kg	4.00
Sample: 186240	- AH-5 3-3.5' (1.5' BE	B)		
Param	Flag	Result	Units	RL
Chloride		1680	mg/Kg	4.00
Sample: 186241 Param Chloride	- AH-6 0-1' (1' BEB)	Result <200	Units mg/Kg	RL 4.00
Sample: 186242 Param	- AH-6 1-1.5' (1' BEB Flag) Result	Units	RL
Chloride		<200	mg/Kg	4.00
Sample: 186243	- AH-7 0-1'	Result	Units	RL
Chloride		<200	mg/Kg	4.00
Sample: 186244 Param	- AH-7 1-1.5' Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00
Sample: 186245	- AH-7 2-2.5'			DI
Param Chloride	rlag	Kesult 200	Units mg/Kg	KL 4.00
Ontoride		<200	mg/ rrg	4.00

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1752439743100-86536 HUB: NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Certifications

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

El Paso: T104704221-08-TX LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: February 6, 2009

Work Order: 9013031

Eddy County, NM Project Location: Project Name: St. Mary/Tirano CNG Project Number: 115-6403679

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
186225	AH-1 0-1' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186226	AH-1 1-1.5' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186227	AH-1 2-2.5' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186228	AH-2 0-1'	soil	2009-01-29	00:00	2009-01-30
186229	AH-2 1-1.5'	soil	2009-01-29	00:00	2009-01-30
186230	AH-2 2-2.5'	soil	2009-01-29	00:00	2009-01-30
186231	AH-3 0-1'	soil	2009-01-29	00:00	2009-01-30
186232	AH-3 1-1.5'	soil	2009-01-29	00:00	2009-01-30
186233	AH-3 2-2.5'	soil	2009-01-29	00:00	2009-01-30
186234	AH-4 0-1'	soil	2009-01-29	00:00	2009-01-30

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
186235	AH-4 1-1.5'	soil	2009-01-29	00:00	2009-01-30
186236	AH-4 2-2.5'	soil	2009-01-29	00:00	2009-01-30
186237	AH-5 0-1' (1.5' BEB)	soil	2009-01-29	00:00	2009-01-30
186238	AH-5 1-1.5' (1.5' BEB)	soil	2009-01-29	00:00	2009-01-30
186239	AH-5 2-2.5' (1.5' BEB)	soil	2009-01-29	00:00	2009-01-30
186240	AH-5 3-3.5' (1.5' BEB)	soil	2009-01-29	00:00	2009-01-30
186241	AH-6 0-1' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186242	AH-6 1-1.5' (1' BEB)	soil	2009-01-29	00:00	2009-01-30
186243	AH-7 0-1'	soil	2009-01-29	00:00	2009-01-30
186244	AH-7 1-1.5'	soil	2009-01-29	00:00	2009-01-30
186245	AH-7 2-2.5'	soil	2009-01-29	00:00	2009-01-30

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

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project St. Mary/Tirano CNG were received by TraceAnalysis, Inc. on 2009-01-30 and assigned to work order 9013031. Samples for work order 9013031 were received intact at a temperature of 3.9 deg. 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	48366	2009-02-04 at 10:00	56604	2009-02-04 at 22:54
Chloride (Titration)	SM 4500-Cl B	48337	2009-02-03 at 09:00	56570	2009-02-03 at 17:03
Chloride (Titration)	SM 4500-Cl B	48338	2009-02-03 at 09:30	56571	2009-02-03 at 17:04
Chloride (Titration)	SM 4500-Cl B	48339	2009-02-03 at 09:02	56572	2009-02-03 at 17:04
TPH DRO	Mod. 8015B	48301	2009-02-02 at 09:30	56536	2009-02-02 at 13:30
TPH DRO	Mod. 8015B	48328	2009-02-03 at 09:30	56560	2009-02-03 at 10:30
TPH GRO	S 8015B	48335	2009-02-02 at $17:00$	56568	2009-02-02 at 16:48
TPH GRO	S 8015B	48366	2009-02-04 at 10:00	56605	2009-02-04 at 23:21

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 9013031 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: February 6, 2009 Work Order: 9013031 Page Number: 4 of 35 115-6403679 St. Mary/Tirano CNG Eddy County, NM **Analytical Report** Sample: 186225 - AH-1 0-1' (1' BEB) Laboratory: Midland Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A QC Batch: 56570 Date Analyzed: 2009-02-03 Analyzed By: AR Prep Batch: 48337 Sample Preparation: 2009-02-03 Prepared By: \mathbf{AR} RL Parameter Flag Result Units Dilution \mathbf{RL} Chloride 1360 50 4.00 mg/Kg Sample: 186225 - AH-1 0-1' (1' BEB) Midland Laboratory: TPH DRO Analytical Method: Analysis: Mod. 8015B Prep Method: N/A QC Batch: 56536 Date Analyzed: 2009-02-02 Analyzed By: LD48301 Prep Batch: Sample Preparation: 2009-02-02 Prepared By: LD \mathbf{RL} Result Parameter Flag Units Dilution \mathbf{RL} DRO <50.0 mg/Kg 1 50.0 Spike Percent Recovery Flag Units Limits Surrogate Result Dilution Amount Recovery n-Triacontane 119 1 100 119 10 - 250.4 mg/Kg Sample: 186225 - AH-1 0-1' (1' BEB) Laboratory: Midland Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035 QC Batch: 56568 Analyzed By: Date Analyzed: 2009-02-02 ME Prep Batch: 48335 Sample Preparation: 2009-02-02 Prepared By: AG RL Parameter Dilution Flag Result Units \mathbf{RL} <1.00 1 1.00 $\overline{\text{GRO}}$ mg/Kg Spike Percent Recovery Surrogate Flag Result Units Dilution Amount Recovery Limits

0.915

0.533

mg/Kg

mg/Kg

1

1

1.00

1.00

92

53

68.5 - 119.4

52 - 117

Trifluorotoluene (TFT)

4-Bromofluorobenzene (4-BFB)

Report Date: February 6, 2009 115-6403679		Work Order: 90 St. Mary/Tiran)13031 o CNG	Page Number: 5 of 35 Eddy County, NM		
Sample: 18	6226 - AH-1 1-1.5' (1' B	EB)				
Laboratory:	Midland					
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A	
QC Batch:	56570	Date Analyzed:	2009-02-03	Analyzed By:	AR	
Prep Batch:	48337	Sample Preparation:	2009-02-03	Prepared By:	\mathbf{AR}	
		RL				
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}	
Chloride		1480	mg/Kg	50	4.00	

Sample: 186226 - AH-1 1-1.5' (1' BEB)

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 56536 48301		Analytical Date Anal Sample Pr	l Method: Mod. lyzed: 2009-(reparation: 2009-(8015B)2-02)2-02	Prep M Analyz Prepar	Method: N/A zed By: LD red By: LD
_		_ .	RL				
Parameter		Flag	Result	Un	its	Dilution	\mathbf{RL}
DRO			<50.0	mg/	Kg	1	50.0
Surrogate	Flag	Result	t Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	98.2	2 mg/Kg	1	100	98	10 - 250.4

Sample: 186226 - AH-1 1-1.5' (1' BEB)

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 56568 48335		Analytical Method: Date Analyzed: Sample Preparation:		S 8015B 2009-02-02 2009-02-02		Prep Method: Analyzed By: Prepared By:	
			\mathbf{RL}					
Parameter	Flag		Result		\mathbf{Units}		Dilution	RL
GRO		· · · ·	<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.921	mg/Kg	1	1.00	92	68.5 - 119.4
4-Bromofluor	obenzene (4-BFB)		0.548	mg/Kg	1	1.00	55	52 - 117

Report Date: February 6, 2009 115-6403679		Work Order: 9 St. Mary/Tiran	Work Order: 9013031 St. Mary/Tirano CNG		
Sample: 18	6227 - AH-1 2-2.5' (1' B	EB)			
Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	56570	Date Analyzed:	2009-02-03	Analyzed By:	AR
Prep Batch:	48337	Sample Preparation:	2009-02-03	Prepared By:	AR
		\mathbf{RL}			
Parameter	Flag	\mathbf{Result}	Units	Dilution	\mathbf{RL}
Chloride		1620	mg/Kg	50	4.00
Sample: 18	6228 - AH-2 0-1'				
Laboratory: Analysis:	Midland Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A

Chloride		448	mg/Kg	50	4.00
Parameter	Flag	RL Result	Units	Dilution	RL
QC Batch: Prep Batch:	56570 48337	Date Analyzed: Sample Preparation:	2009-02-03 2009-02-03	Analyzed By: Prepared By:	\mathbf{AR} \mathbf{AR}

Sample: 186228 - AH-2 0-1'

Midland TPH DRO 56536 48301		Analytical Me Date Analyze Sample Prepa	ethod: Mod. 8 d: 2009-0 ration: 2009-0	3015B 2-02 2-02	Prep M Analyz Prepar	fethod: N/A ed By: LD ed By: LD
Fla	ıg	RL Result	Uni	ts	Dilution	RL
		1120	mg/H	Kg	5	50.0
Flag	Result 420	Units mg/Kg	Dilution	Spike Amount	Percent Recovery 420	Recovery Limits
	Midland TPH DRO 56536 48301 Fla Flag	Midland TPH DRO 56536 48301 Flag Flag Result e 1 420	Midland TPH DRO Analytical Me 56536 Date Analyze 48301 Sample Prepa RL Flag Result 1120 Flag Result Units e 1 420 mg/Kg	MidlandTPH DROAnalytical Method:Mod. 8 56536 Date Analyzed: $2009-02$ 48301 Sample Preparation: $2009-02$ RLRLFlagResultUnit1120mg/HFlagResultUnitsFlagResultUnitsFlagResultUnits5MarkMark	Midland TPH DROAnalytical Method: Date Analyzed: Sample Preparation:Mod. $8015B$ 2009-02-02 2009-02-0248301Sample Preparation: 2009-02-02 $2009-02-02$ RL FlagResultUnitsUnitsSpike AmountFlagResultUnitsSpike AmountFlagResultUnitsDilutionAmounte1420mg/Kg5100	Midland TPH DROAnalytical Method:Mod. $8015B$ Prep M56536Date Analyzed: $2009-02-02$ Analyz48301Sample Preparation: $2009-02-02$ PreparRLFlagResultUnitsDilutionIlloomg/Kg5SpikePercentFlagResultUnitsDilutionFlagResultUnitsDilutionFlagResultUnitsDilution420mg/Kg5100420

Sample: 186228 - AH-2 0-1'

.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	56568	Date Analyzed:	2009-02-02	Analyzed By:	ME
Prep Batch:	48335	Sample Preparation:	2009-02-02	Prepared By:	AG

¹High surrogate recovery due to peak interference.

Report Date: February 6, 2009 115-6403679			Work Order: 9013031 St. Mary/Tirano CNG				Page Number: 7 of 35 Eddy County, NM		
Parameter	Flag	RL Result 78.7			Units		Dilution	RL	
GRO					mg/Kg	1		1.00	
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotoluene (TI 4-Bromofluorobenze	FT) ene (4-BFB)	2	1.00 2.60	mg/Kg mg/Kg	1	1.00 1.00	100 260	68.5 - 119.4 52 - 117	
Sample: 186220 -	AH-2 1-1 5	3							

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	56570	Date Analyzed:	2009-02-03	Analyzed By:	AR
Prep Batch:	48337	Sample Preparation:	2009-02-03	Prepared By:	\mathbf{AR}
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
<u>C</u> hloride	······································	302	mg/Kg	50	4.00

Sample: 186229 - AH-2 1-1.5'

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Laboratory:	Midland						
Analysis:	TPH DRO		Analytical M	ethod: Mod.	8015B	Prep M	fethod: N/A
QC Batch:	56536		Date Analyze	d: 2009-0	2-02	Analyz	ed By: LD
Prep Batch:	48301		Sample Prepa	ration: 2009-0	2-02	Prepar	ed By: LD
			RL				
Parameter	Fla	ıg	\mathbf{Result}	Un	its	Dilution	\mathbf{RL}
DRO			<50.0	mg/l	Kg	1	. 50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	96.2	mg/Kg	1	100	96	10 - 250.4

Sample: 186229 - AH-2 1-1.5'

The or provide the second se		
Analysis: TPH GRO Analytical Method: S 8015B	Prep Method:	S 5035
QC Batch: 56568 Date Analyzed: 2009-02-02	Analyzed By:	ME
Prep Batch: 48335 Sample Preparation: 2009-02-02	Prepared By:	AG

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continued ...

²High surrogate recovery due to peak interference.

Report Date: February 6, 2009 Work Order: 9013031 St. Mary/Tirano CNG Page Number: 8 of 33 Eddy County, NM ample 186229 continued RL 'arameter Flag Result Units Dilution RL 'arameter Flag Result Units Dilution RL 'arameter Flag Result Units Dilution RL 'BO 5,73 mg/Kg 1 1.00 1 1.00 'arameter Flag Result Units Dilution RL Inits 1.00 90 68.5 - 119.4 -100 90 68.5 - 119.4 -100 90 68.5 - 119.4 -100 73 52 - 117 -100 73 52 - 117 -100 73 52 - 117 -100 73 52 - 117 -100 73 52 - 117 -100 73 52 - 117 -100 73 52 - 117 -100 73 52 - 117 -100 73 52 - 117 -100 -100 -100 -100 -100 -100 -100 -100 -100 -100 -100 -100 -100	Report Date: February 6, 2009 Work Order: 9013031 Page Number: 8 of Eddy County, N sample 186229 continued RL Parameter Flag RL Parameter Flag Result Units Dilution F Parameter Flag Result Units Dilution F GRO 5.71 mg/Kg 1 1 1 Surrogate Flag Result Units Dilution Recovery Limits Surrogate Flag Result Units Dilution Amount Recovery Limits 4-Dromofluorobenzene (4-BFB) 0.734 mg/Kg 1 1.00 90 68.5 - 18 4-Dromofluorobenzene (4-BFB) 0.734 mg/Kg 1 1.00 73 62 - 111 Sample: 186230 - AH-2 2-2.5' Laboratory: Midland Analyzed Surloga Analyzed By: Al QC Batch: 5670 Date Analyzed: 2009-02-03 Prep Method: N QC QC Batch: 56604 Date Analyzed: 2009-02-03 Prep Method: S 50 QC Batch:										
Report Date: February 6, 2009 Work Order: 9013031 Page Number: 8 of 33 116-6403679 RL ample 186229 continued RL Parameter Flag Result Units Dilution RL Result Units Parameter Flag Result Units Spike Percent Recovery Limits Since Frequence Result Units Dilution Spike Percent Recovery Limits Ciffuorotoluene (TFT) 0.902 mg/Kg 1 1.00 90 68.5 - 119.4 -Percent Recovery Limits Dilution Resource Limits Concort Spike Percent Recovery Limits Ciffuorotoluene (TFT) 0.902 mg/Kg 1 1.00 73 52 - 117.4 Sample: 186230 - AH-2 2-2.5' Ge Bact: 56570 Date Analyzed: 2009-02-03 Prepered By: AR ?rep Batch: 48337 Sample Preparation: 2009-02-04 Analyzed By: M	Report Date: February 6, 2009 Work Order: 9013031 Page Number: 8 of 115-6403679 St. Mary/Tirano CNG Eddy County, N sample 186229 continued RL Parameter Flag Result Units Dilution F Parameter Flag Result Units Dilution F CRO 5.71 mg/Kg 1 1 1 Surrogate Flag Result Units Dilution Recover Surrogate Flag Result Units Dilution Amount Recover Tiffuorotolenee (TFT) 9.902 mg/Kg 1 1.00 96.85 - 11 4-Bromofluorobenzene (4-BFB) 0.734 mg/Kg 1 1.00 73 52 - 111 Sample: 186230 - AH-2 2-2.5' Laboratory: Midland Analysics Choiride (Tiration) Analytical Method: SM 4500-Cl B Prep Method: N QC Batch: 56670 Date Analyzed: 2009-02-03 Prepared By: AI Prep Batch: 43337 Sample										
Bit-6403679 St. Mary/Tirano CNG Eddy County, NM ample 186229 continued RL Dilution RL 'arameter Flag Result Units Dilution Recovery Limits 'arameter Flag Result Units Dilution Amount Recovery Limits Critionorobenzene (TFT) 0.902 mg/Kg 1 1.00 90 68.5 - 119.4 -'Bromofluorobenzene (4-BFB) 0.734 mg/Kg 1 1.00 73 52 - 117 Sample: 186230 - AH-2 2-2.5' : : : aboratory: Midland \nalysis: Chloride (Titration) Analytical Method: SM 4500-C1 B Prep Method: N/A '20 Batch: 56370 Date Analyzed: 2009-02-03 Prepared By: AR 'arameter Flag Result Units Dilution RI '20 Batch: </td <td>115-6403679 St. Mary/Tirano CNG Eddy County, N sample 186229 continued Parameter Flag Result Units Dilution F Parameter Flag Result Units Dilution F GRO 5.71 mg/Kg 1 1. 1 Surrogate Flag Result Units Dilution Amount Recover Linits Surrogate Flag Result Units Dilution Amount Recover Linits Sample: 186230 - AH-2 2-2.5' Laboratory: Midland Analytical Method: SM 4500-C) B Prep Method: N QC Batch: 56570 Date Analyzed: 2009-02-03 Prepared By: Ai Parameter Flag Result Units Dilution 1 Choride 353 mg/Kg 50 4 Sample: 166231 - AH-3 0-1' Laboratory: Midland Analysis: BTEX Analytical Method: S 8021B Prep Method: S 62 CO Batch: 56604 <t< td=""><td>Report Date:</td><td>February 6</td><td>, 2009</td><td></td><td>,</td><td>Work Orde</td><td>r: 9013031</td><td></td><td>Page N</td><td>umber: 8 of 35</td></t<></td>	115-6403679 St. Mary/Tirano CNG Eddy County, N sample 186229 continued Parameter Flag Result Units Dilution F Parameter Flag Result Units Dilution F GRO 5.71 mg/Kg 1 1. 1 Surrogate Flag Result Units Dilution Amount Recover Linits Surrogate Flag Result Units Dilution Amount Recover Linits Sample: 186230 - AH-2 2-2.5' Laboratory: Midland Analytical Method: SM 4500-C) B Prep Method: N QC Batch: 56570 Date Analyzed: 2009-02-03 Prepared By: Ai Parameter Flag Result Units Dilution 1 Choride 353 mg/Kg 50 4 Sample: 166231 - AH-3 0-1' Laboratory: Midland Analysis: BTEX Analytical Method: S 8021B Prep Method: S 62 CO Batch: 56604 <t< td=""><td>Report Date:</td><td>February 6</td><td>, 2009</td><td></td><td>,</td><td>Work Orde</td><td>r: 9013031</td><td></td><td>Page N</td><td>umber: 8 of 35</td></t<>	Report Date:	February 6	, 2009		,	Work Orde	r: 9013031		Page N	umber: 8 of 35
RL 'arameter Flag Result Units Dilution Recovery Surrogate Flag Result Units Dilution Recovery Limits 'fifthorotolucene (TFT) 0.902 mg/Kg 1 1.00 90 68.5 - 119.4 -Bromofluorobenzene (4-BFB) 0.734 mg/Kg 1 1.00 73 52 - 117 sample: 186230 - AH-2 2-2.5' jaboratory: Midland Analytical Method: SM 4500-C1 B Prep Method: N/A QC Batch: 56570 Date Analyzed: 2009-02-03 Analyzed By: AR 'arameter Flag Result Units Dilution RL 'atameter Flag Result Units Dilution RL <td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td> <td>115-6403679</td> <td></td> <td></td> <td></td> <td>S</td> <td>t. Mary/T</td> <td>irano CNG</td> <td></td> <td>Edd</td> <td>ly County, NM</td>	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	115-6403679				S	t. Mary/T	irano CNG		Edd	ly County, NM
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Sample: 186231 - AH-3 0-1'Laboratory:MidlandAnalysis:BTEXAnalytical Method:S 8021BPrep Method:S 5033QC Batch:56604Date Analyzed:2009-02-04Analyzed By:MEPrep Batch:48366Sample Preparation:2009-02-04Prepared By:MERLParameterFlagResultUnitsDilutionRIBenzene<0.100	Sample: 186231 - AH-3 0-1'Laboratory:MidlandAnalysis:BTEXAnalytical Method:S 8021BPrep Method:S 50QC Batch:56604Date Analyzed:2009-02-04Analyzed By:MEPrep Batch:48366Sample Preparation:2009-02-04Prepared By:MEParameterFlagResultUnitsDilutionIBenzene<0.100	Chloride				353		mg/Kg		50	4.00
Laboratory:Midland Analysis:Analytical Method:S 8021BPrep Method:S 5033QC Batch:56604Date Analyzed:2009-02-04Analyzed By:MEPrep Batch:48366Sample Preparation:2009-02-04Prepared By:MERLRLParameterFlagResultUnitsDilutionRIBenzene<0.100	Laboratory: Midland Analysis: BTEXAnalytical Method: S 8021BPrep Method: S 50QC Batch: 56604Date Analyzed: 2009-02-04Analyzed By: MEPrep Batch: 48366Sample Preparation: 2009-02-04Prepared By: MEParameterFlagResultUnitsDilutionBenzene <0.100 mg/Kg100.01Toluene2.51mg/Kg100.01Ethylbenzene3.56mg/Kg100.01Xylene8.77mg/Kg100.01SurrogateFlagResultUnitsDilutionAmountTrifluorotoluene (TFT)11.7mg/Kg1010.01174-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 14	Sample: 186	6231 - AH	-3 0-1'							
Analysis:BTEXAnalytical Method:S 8021BPrep Method:S 503:QC Batch:56604Date Analyzed:2009-02-04Analyzed By:MEPrep Batch:48366Sample Preparation:2009-02-04Prepared By:MERLRLDilutionRIBenzene < 0.100 mg/Kg100.0100Toluene2.51mg/Kg100.0100Ethylbenzene3.56mg/Kg100.0100Xylene8.77mg/Kg100.0100SurrogateFlagResultUnitsDilutionRecoverySurrogateFlagResultUnitsDilutionAmountRecoveryLimits11.7mg/Kg1010.011749 - 129.74-Bromofluorobenzene12.6mg/Kg1010.012645.2 - 144	Analysis:BTEXAnalytical Method:S 8021BPrep Method:S 50QC Batch:56604Date Analyzed:2009-02-04Analyzed By:MEPrep Batch:48366Sample Preparation:2009-02-04Prepared By:MEParameterFlagResultUnitsDilutionBenzene<0.100	Laboratory:	Midland								
QC Batch:56604Date Analyzed:2009-02-04Analyzed By:MEPrep Batch:48366Sample Preparation:2009-02-04Prepared By:MERLRLDilutionRIBenzene < 0.100 mg/Kg100.0100Toluene2.51mg/Kg100.0100Ethylbenzene3.56mg/Kg100.0100Xylene8.77mg/Kg100.0100SurrogateFlagResultUnitsDilutionRecoverySurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTifluorotoluene (TFT)11.7mg/Kg1010.011749 - 129.712.6mg/Kg1010.011749 - 129.714.4	QC Batch:56604 Date Analyzed:Date Analyzed:2009-02-04 2009-02-04Analyzed By:MEPrep Batch:48366Sample Preparation:2009-02-04Prepared By:MERL BenzeneRLDilutionIBenzene<0.100	Analysis:	BTEX			Analytical	Method:	S 8021B		Prep Me	ethod: S 5035
Prep Batch:48366Sample Preparation:2009-02-04Prepared By:MERLParameterFlagResultUnitsDilutionRIBenzene < 0.100 mg/Kg10 0.0100 Toluene2.51mg/Kg10 0.0100 Ethylbenzene3.56mg/Kg10 0.0100 Xylene8.77mg/Kg10 0.0100 SurrogateFlagResultUnitsDilutionAmountRecoverySurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 129.74-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.0112645.2 - 144	Prep Batch:48366Sample Preparation:2009-02-04Prepared By:MERLRLDilutionDilutionDilutionDilutionBenzene <0.100 mg/Kg100.01Toluene 2.51 mg/Kg100.01Ethylbenzene 3.56 mg/Kg100.01Xylene 8.77 mg/Kg100.01Spike Percent RecoverSurrogateFlagResultUnitsDilutionTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 1294-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 14	QC Batch:	56604			Date Analy	zed:	2009-02-04		Analyze	d By: ME
RLParameterFlagResultUnitsDilutionRIBenzene <0.100 mg/Kg100.0100Toluene 2.51 mg/Kg100.0100Ethylbenzene 3.56 mg/Kg100.0100Xylene 8.77 mg/Kg100.0100Spike Percent RecoverySurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 129.74-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 144	RLParameterFlagResultUnitsDilutionBenzene<0.100	Prep Batch:	48366			Sample Pre	eparation:	2009-02-04		Prepare	d By: ME
Prage Prage Result Offics Didution Result Offics Didution Result Result Offics Didution Result Result Offics Didution Result Result Offics Didution Result Didution Result	Parameter Prag Result Ontos Didution Benzene <0.100	Daramatar		Flor		RL Result		Unita		Dilution	ЪI
Toluene 2.51 mg/Kg 10 0.010 Ethylbenzene 3.56 mg/Kg 10 0.010 Xylene 8.77 mg/Kg 10 0.010 Surrogate Flag Result Units Dilution Amount Recovery Limits 11.7 mg/Kg 10 10.0 117 49 - 129.7 4-Bromofluorobenzene (4-BFB) 12.6 mg/Kg 10 10.0 126 45.2 - 144	Surrogate Flag Result Units Dilution Amount Recovery Limits Surrogate Flag Result Units Dilution Amount Recovery Limits Trifluorotoluene (TFT) 11.7 mg/Kg 10 10.0 117 49 - 129 4-Bromofluorobenzene (4-BFB) 12.6 mg/Kg 10 10.0 126 45.2 - 14	Benzene		T lag		<0 100		mg/Kg		10	0 0100
Ethylbenzene 3.56 mg/Kg 10 0.010 Xylene 8.77 mg/Kg 10 0.010 Surrogate Flag Result Units Dilution Amount Recovery Limits Trifluorotoluene (TFT) 11.7 mg/Kg 10 10.0 117 49 - 129.7 t-Bromofluorobenzene (4-BFB) 12.6 mg/Kg 10 10.0 126 45.2 - 144	Ethylbenzene 3.56 mg/Kg 10 0.01 Xylene 8.77 mg/Kg 10 0.01 Surrogate Flag Result Units Dilution Amount Recovery Limits Trifluorotoluene (TFT) 11.7 mg/Kg 10 10.0 117 49 - 129 4-Bromofluorobenzene (4-BFB) 12.6 mg/Kg 10 10.0 126 45.2 - 14	Toluene				2.51		mg/Kg		10	0.0100
Xylene8.77mg/Kg100.010SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 129.74-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 144	Xylene8.77mg/Kg100.01SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 1294-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 14	Ethylbenzene	,			3.56		mg/Kg		10	0.0100
SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 129.74-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 144	SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 1294-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 14	Xylene				8.77		mg/Kg		10	0.0100
SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 129.74-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 144.3	SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)11.7mg/Kg1010.011749 - 1294-Bromofluorobenzene (4-BFB)12.6mg/Kg1010.012645.2 - 14								Snike	Percent	Becovery
Trifluorotoluene (TFT) 11.7 mg/Kg 10 10.0 117 49 - 129.7 4-Bromofluorobenzene (4-BFB) 12.6 mg/Kg 10 10.0 126 45.2 - 144.3	Trifluorotoluene (TFT) 11.7 mg/Kg 10 10.0 117 49 - 129 4-Bromofluorobenzene (4-BFB) 12.6 mg/Kg 10 10.0 126 45.2 - 14	Surrogate			Flag	Result	Units	Dilution	Amount	Recoverv	Limits
4-Bromofluorobenzene (4-BFB) 12.6 mg/Kg 10 10.0 126 45.2 - 144	4-Bromofluorobenzene (4-BFB) 12.6 mg/Kg 10 10.0 126 45.2 - 14	Trifluorotolue	ene (TFT)			11.7	mg/Kg	10	10.0	117	49 - 129.7
1 = 1 1 1 1 1 1 1 1		4-Bromofluor	obenzene (4	-BFB)		12.6	mg/Kg	10	10.0	126	45.2 - 144.3

Report Date 115-6403679	Report Date: February 6, 2009 115-6403679			Order: 9013031 ary/Tirano CNC	Page Number: 9 of 3 Eddy County, NN		
Sample: 18	6231 - AH-3 0-1'						
Laboratory:	Midland						
Analysis:	Chloride (Titratio	n)	Analytical	Method: SM	4500-Cl B	Prep Method:	N/A
QC Batch:	56570		Date Analy	/zed:/ 2009	9-02-03	Analyzed By:	\mathbf{AR}
Prep Batch: 48337			Sample Pre	eparation: 2009	9-02-03	Prepared By:	AR
			\mathbf{RL}				
Parameter	Flag		Result	Unit	S	Dilution	\mathbf{RL}
Chloride		<u>.</u>	<200	mg/K	g	50	4.00
Sample: 18 Laboratory: Analysis: QC Batch: Prep Batch:	86231 - AH-3 0-1' Midland TPH DRO 56536 48301		Analytical Me Date Analyzed Sample Prepar	thod: Mod. 8 1: 2009-02 ation: 2009-02	015B -02 -02	Prep Method: Analyzed By: Prepared By:	N/A LD LD
Porometer	Flag		RL Result	Unit	0	Dilution	RI.
DRO	1 lag		3030	mg/K	e	5	50.0
Sumorato	Flog	Becult	Ilpite	Dilution	Spike	Percent Re	ecovery
n Triacontar		733	ma/Ka	5	100	733 10	- 250 4
II-TLIGCOULT	10	100	mg/ ng	U	100	100 10	- 200.4

Sample: 186231 - AH-3 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 56605 48366	Analytical Method:S 8015BDate Analyzed:2009-02-04Sample Preparation:2009-02-04			Prep Method: S 5035 Analyzed By: ME Prepared By: ME			
			\mathbf{RL}					
Parameter	Flag		\mathbf{Result}		Units		Dilution	\mathbf{RL}
GRØ			563	• • •	mg/Kg	······································	10	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)		4	9.78 16.5	mg/Kg mg/Kg	10 10	10.0 10.0	98 165	68.5 - 119.4 52 - 117

³High surrogate recovery due to peak interference.

⁴High surrogate recovery due to peak interference.

Report Date: 115-6403679	February 6, 2009)	Work St. M	Order: 9013031 ary/Tirano CNC	Page Number: 10 of 35 Eddy County, NM		
Sample: 186	232 - AH-3 1-1	5'					
Laboratory:	Midland						
Analysis:	Chloride (Titrati	ion)	Analytical	Method: SM	4500-Cl B	Prep Method	: N/A
QC Batch:	56570		Date Anal	yzed: 200	9-02-03	Analyzed By	: AR
Prep Batch:	48337		Sample Preparation: 2009-02-03			Prepared By	AR
			BL				
Parameter	Flag	ç	Result	Unit	ts	Dilution	\mathbf{RL}
Chloride		·	<200	mg/K	g	50	4.00
Sample: 186 Laboratory:	232 - AH-3 1- 1 Midland	1.5'					
Sample: 186 Laboratory: Analysis: QC Batch: Prep Batch:	232 - AH-3 1- Midland TPH DRO 56536 48301	1.5'	Analytical Me Date Analyze Sample Prepa	ethod: Mod. 8 d: 2009-02 ration: 2009-02	015B 2-02 2-02	Prep Method Analyzed By Prepared By	1: N/A : LD : LD
Sample: 186 Laboratory: Analysis: QC Batch: Prep Batch:	232 - AH-3 1-1 Midland TPH DRO 56536 48301	l.5'	Analytical Me Date Analyze Sample Prepa RL	ethod: Mod. 8 d: 2009-02 ration: 2009-02	015B 2-02 2-02	Prep Method Analyzed By Prepared By	A: N/A : LD : LD
Sample: 186 Laboratory: Analysis: QC Batch: Prep Batch: Parameter	232 - AH-3 1-J Midland TPH DRO 56536 48301 Flag	1.5'	Analytical Me Date Analyze Sample Prepa RL Result	ethod: Mod. 8 d: 2009-02 ration: 2009-02 Uni	015B 2-02 2-02 ts	Prep Method Analyzed By Prepared By Dilution	A: N/A : LD : LD RL
Sample: 186 Laboratory: Analysis: QC Batch: Prep Batch: Parameter DRO	232 - AH-3 1-1 Midland TPH DRO 56536 48301 Flag	1. 5 '	Analytical Me Date Analyze Sample Prepa RL Result <50.0	ethod: Mod. 8 d: 2009-02 ration: 2009-02 Uni 	015B 2-02 2-02 ts 	Prep Method Analyzed By Prepared By Dilution 1	A: N/A : LD : LD RL 50.0
Sample: 186 Laboratory: Analysis: QC Batch: Prep Batch: Parameter DRO	232 - AH-3 1-1 Midland TPH DRO 56536 48301 Flag	1. 5 '	Analytical Me Date Analyze Sample Prepa RL Result <50.0	ethod: Mod. 8 d: 2009-02 ration: 2009-02 Uni mg/K	015B 2-02 2-02 ts ts Spike	Prep Method Analyzed By Prepared By Dilution 1 Percent F	A: N/A : LD : LD RL 50.0
Sample: 186 Laboratory: Analysis: QC Batch: Prep Batch: Parameter DRO Surrogate	232 - AH-3 1-J Midland TPH DRO 56536 48301 Flag	1.5' 3 Result	Analytical Ma Date Analyze Sample Prepa RL Result <50.0 Units	ethod: Mod. 8 d: 2009-02 ration: 2009-02 Uni 	015B 2-02 2-02 ts <u>5</u> Spike Amount	Prep Method Analyzed By Prepared By Dilution 1 Percent F Recovery	A: N/A : LD : LD RL 50.0 Lecovery Limits

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 56568 48335		Analytica Date Ana Sample Pr	Analytical Method: Date Analyzed: Sample Preparation:			Prep Me Analyzeo Prepareo	thod: S 5035 I By: ME I By: AG
			\mathbf{RL}					
Parameter	Fl	ag	\mathbf{Result}		Units		Dilution	\mathbf{RL}
GRO			14.5		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.867	mg/Kg	1	1.00	87	68.5 - 119.4	
4-Bromofluor	4-Bromofluorobenzene (4-BFB)		0.794	mg/Kg	1	1.00	79	52 - 117

Report Date: 115-6403679	Report Date: February 6, 2009 115-6403679			Work Order: 9013031 St. Mary/Tirano CNG			Page Number: 11 of 35 Eddy County, NM		
Sample: 180	6233 - AH-3 2-2.	5'							
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titratio 56570 48337	n)	Analytical Date Analy Sample Pre	Method: S zed: 2 paration: 2	M 4500-Cl B 009-02-03 009-02-03	Prep M Analyz Prepar	lethod: ed By: ed By:	N/A AR AR	
			DI						
Parameter	\mathbf{Flag}		Result	Ŭ	nits	Dilution		RL	
Chloride			213	mg	/Kg	50		4.00	
Sample: 18 Laboratory: Analysis: QC Batch:	6234 - AH-4 0-1' Midland Chloride (Titratio 56570	n)	Analytical Date Analy	Method: S	SM 4500-Cl B 2009-02-03	Prep M • Analyz	1ethod: ed By:	N/A AR	
Prep Batch:	48337		Sample Pre	eparation: 2	2009-02-03	Prepar	ed By:	AR	
Parameter Chloride	Flag	• • • • • • • • •	RL Result <200	U	Jnits //Kg	Dilution 50		RL 4.00	
Sample: 18	6234 - AH-4 0-1'							·	
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 56536 48301		Analytical Met Date Analyzed Sample Prepar	hod: Mod : 2009 ation: 2009	l. 8015B)-02-02 -02-02	Prep M Analyz Prepai	Aethod: zed By: red By:	N/A LD LD	
D I			RL	Ţ	7 1.			DI	
DRO	Flag		236	 m;	Jnits t/Kg			50.0	
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Rec Liı	overy mits	
n-Triacontan	le	105	mg/Kg	1	100	105	10 -	250.4	

Sample: 186234 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	56568	Date Analyzed:	2009-02-02	Analyzed By:	ME
Prep Batch:	48335	Sample Preparation:	2009-02-02	Prepared By:	AG

Report Date: February 6, 2009 115-6403679			Work Order: 9013031 St. Mary/Tirano CNG				Page Number: 12 of 35 Eddy County, NM		
Parameter GRO	Flag		RL Result 9.74		Units mg/Kg		Dilution1	RL 1.00	
Surrogate Triffuorotoluene (TFT) 4-Bromofluorobenzene (4-	-BFB)	Flag	Result 0.885 0.873	Units mg/Kg mg/Kg	Dilution 1 1	Spike Amount 1.00 1.00	Percent Recovery 88 87	Recovery Limits 68.5 - 119.4 52 - 117	

Sample: 186235 - AH-4 1-1.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 56571 48338	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2009-02-03 2009-02-03	Prep Method: Analyzed By: Prepared By:	N/A AR AR
Farameter	Flag	RL Result	Units	Dilution	RL
Chloride		356	mg/Kg	50	4.00

Sample: 186235 - AH-4 1-1.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 56536 48301		Analytical Date Anal Sample Pr	Method: Mod yzed: 2009 eparation: 2009	. 8015B -02-02 -02-02	Prep H Analy Prepa	Method: N/A zed By: LD red By: LD
Parameter	1	Flag	RL Result	τ	Inits	Dilution	\mathbf{RL}
DRO	······································		<50.0	mg	/Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	90.6	mg/Kg	1	100	91	10 - 250.4

Sample: 186235 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	56568	Date Analyzed:	2009-02-02	Analyzed By:	ME
Prep Batch:	48335	Sample Preparation:	2009-02-02	Prepared By:	AG
					<u> </u>

continued

Report Date: February 6, 2009 15-6403679			Work Order: 9013031 St. Mary/Tirano CNG				Page Number: 13 of 35 Eddy County, NM		
sample 18623	'5 continued								
			RL						
Parameter	Flag	· · ·	Result		Units		Dilution		RL
			\mathbf{RL}						
Parameter	Flag		Result		Units		Dilution		RI
GRO			2.64		mg/Kg		1		1.00
_						Spike	Percent	Reco	very
Surrogate	((DEVD)	Flag I	tesult	Units	Dilution	Amount	Recovery	Lin	iits
Irifluorotolue	ene (IFI)		0.910	mg/Kg	1	1.00	92 74	- 6.80	119.
Sample: 18	6236 - AH-4 2-2.5' Midland								
Sample: 186 Laboratory: Analysis: QC Batch: Pren Batch:	6236 - AH-4 2-2.5' Midland Chloride (Titration) 56571 48338		Analy Date Samp	tical Method: Analyzed: le Preparation	SM 450 2009-02 2009-02	0-Cl B -03 -03	Prep Analy Prepa	Method: zed By: red By:	N/A AR AR
Sample: 18 Laboratory: Analysis: QC Batch: Prep Batch:	6236 - AH-4 2-2.5' Midland Chloride (Titration) 56571 48338		Analy Date Samp	tical Method: Analyzed: le Preparation	SM 4500 2009-02 2009-02	0-Cl B -03 -03	Prep Analy Prepa	Method: zed By: red By:	N/A AR AR
Sample: 18 Laboratory: Analysis: QC Batch: Prep Batch: Prep Batch:	6236 - AH-4 2-2.5' Midland Chloride (Titration) 56571 48338		Analy Date Samp RL Bosult	tical Method: Analyzed: le Preparation	SM 450 2009-02 2009-02	0-Cl B -03 -03	Prep Analy Prepa Dilution	Method: zed By: rred By:	N/A AR AR
Sample: 18 Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride	6236 - AH-4 2-2.5' Midland Chloride (Titration) 56571 48338 Flag		Analy Date Samp RL Result 272	tical Method: Analyzed: le Preparation	SM 450 2009-02 2009-02 2009-02 Units mg/Kg	0-Cl B -03 -03	Prep Analy Prepa Dilution 50	Method: zed By: red By:	N/J AR AR R 4.0
Sample: 18 Laboratory: Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 18	6236 - AH-4 2-2.5' Midland Chloride (Titration) 56571 48338 Flag 6237 - AH-5 0-1' (1	5' BEB)	Analy Date Samp RL Result 272	tical Method: Analyzed: le Preparation	SM 450 2009-02 2009-02 Units mg/Kg	0-Cl B -03 -03	Prep Analy Prepa Dilution 50	Method: rzed By: ured By:	N/ AR AR R 4.0

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		KL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		2660	mg/Kg	50	4.00

Sample: 186237 - AH-5 0-1' (1.5' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	56536	Date Analyzed:	2009-02-02	Analyzed By:	LD
Prep Batch:	48301	Sample Preparation:	2009-02-02	Prepared By:	LD

Report Date: February 6, 2009 115-6403679			Worl St. M	k Order: 901303 Iary/Tirano CN	Page Number: 14 of 35 Eddy County, NM		
Parameter	Fla	g .	RL Result	Uni	ts	Dilution	\mathbf{RL}
DRO			<50.0	mg/ł	Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		94.3	mg/Kg	I	100	94	10 - 250.4

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Sample: 186237 - AH-5 0-1' (1.5' BEB)

Laboratory:	Midland							
Analysis:	TPH GRO		Analytical	l Method:	S 8015B		Prep Me	thod: S 5035
QC Batch:	56568		Date Ana	lyzed:	2009-02-02		Analyze	d By: ME
Prep Batch: 48335			Sample P	reparation:	2009-02-02		Prepared	HBy: AG
			\mathbf{RL}					
Parameter	Flag		Result		Units		Dilution	\mathbf{RL}
GRO			<1.00		mg/Kg		1	1.00
2		-	. .		50.1	Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.911	mg/Kg	1	1.00	91	68.5 - 119.4
4-Bromofluor	robenzene (4-BFB)		0.747	mg/Kg	1	1.00	75	52 - 117

Sample: 186238 - AH-5 1-1.5' (1.5' BEB)

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 56571 48338	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2009-02-03 2009-02-03	Prep Method: Analyzed By: Prepared By:	N/A AR AR
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride	· · · · · · · · · · · · · · · · · · ·	1730	ng/Kg	50	4.00

Sample: 186238 - AH-5 1-1.5' (1.5' BEB)

Laboratory: Analysis:	Midland TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	56536	Date Analyzed:	2009-02-02	Analyzed By:	ĹĎ
Prep Batch:	48301	Sample Preparation:	2009-02-02	Prepared By:	LD

Report Date: February 6, 2009 115-6403679			Work Order: 9013031 St. Mary/Tirano CNG			Page Number: 15 of 35 Eddy County, NM		
Parameter	Fla	g	RL Result	Uni	ts	Dilution	RL	
DRO			<50.0	mg/I	Кg	1	50.0	
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
n-Triacontane		88.0	mg/Kg	1	100	88	10 - 250.4	

Sample: 186238 - AH-5 1-1.5' (1.5' BEB)

Laboratory:	Midland								
Analysis:	TPH GRO		Analytical	l Method:	S 8015B		Prep Me	thod:	S 5035
QC Batch:	56568		Date Ana	lyzed:	2009-02-02		Analyzed	i By:	ME
Prep Batch:	48335		Sample P	Sample Preparation:			Prepared By:		AG
			RĹ						
Parameter	Flag		\mathbf{Result}		Units		Dilution		\mathbf{RL}
GRO			<1.00		mg/Kg	·····	1	···	1.00
a .		ורד		T T 1,		Spike	Percent	Re	covery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	I	limits
Trifluorotolu	ene (TFT)		0.905	mg/Kg	1	1.00	90	68.5	5 - 119.4
4-Bromofluor	robenzene (4-BFB)		0.853	mg/Kg	1	1.00	85	52	2 - 117

Sample: 186239 - AH-5 2-2.5' (1.5' BEB)

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 56571 48338	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2009-02-03 2009-02-03	Prep Method: Analyzed By: Prepared By:	N/A AR AR
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		1670	mg/Kg	50	4.00

Sample: 186240 - AH-5 3-3.5' (1.5' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	56571	Date Analyzed:	2009-02-03	Analyzed By:	AR
Prep Batch:	48338	Sample Preparation:	2009-02-03	Prepared By:	AR

Report Date: February 6, 2009 115-6403679		Work St. Ma	Order: 901303 ry/Tirano CN	Page Number: 16 of 35 Eddy County, NM			
			\mathbf{RL}				
Parameter	Flag		Result	Uni	its	Dilution	\mathbf{RL}
Chloride			1680	mg/I	ζg	-50	4.00
Sample: 18	6241 - AH-6 0-1	' (1' BEB)					
Laboratory:	Midland						
Analysis:	Chloride (Titrati	on)	Analytical 1	Method: SM	I 4500-Cl B	Prep Method	: N/A
QC Batch:	56571		Date Analy	zed: 200)9-02-03	Analyzed By:	\mathbf{AR}
Prep Batch:	48338		Sample Pre	paration: 200	09-02-03	Prepared By:	AR
			\mathbf{RL}				
Parameter	Flag		Result	Un	its	Dilution	\mathbf{RL}
Chloride			<200	mg/l	Kg	50	4.00
Sample: 18	6241 - AH-6 0-1	' (1' BEB)					
Laboratory:	Midland						
Analysis:	TPH DRO		Analytical Met	hod: Mod.	8015B	Prep Method	: N/A
QC Batch:	56536		Date Analyzed	: 2009-0	2-02	Analyzed By:	LD
Prep Batch:	48301		Sample Prepar	ation: 2009-0	2-02	Prepared By:	LD
			\mathbf{RL}				
Parameter	Flag		Result	Un	its	Dilution	\mathbf{RL}
DRO			770	mg/	Kg	5	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent R Recovery	ecovery Limits

Sample: 186241 - AH-6 0-1' (1' BEB)

n-Triacontane

5

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 56568 48335	Analytical Method: Date Analyzed: Sample Preparation:	S 8015B 2009-02-02 2009-02-02	Prep Method: Analyzed By: Prepared By:	S 5035 ME AG
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
GRO		4.87	mg/Kg	1	1.00

5

100

514

10 - 250.4

mg/Kg

514

⁵High surrogate recovery due to peak interference.

Report Date: February 6, 2009 115-6403679			Work Order: 9013031 St. Mary/Tirano CNG				Page Number: 17 of 35 Eddy County, NM		
Surrogate F Trifluorotoluene (TFT)		Flag_	\mathbf{Result}	Units	Dilution	Spike Amount 1.00	Percent Recovery	Reco Lim	very its
			1.03	mg/Kg	1		103	68.5 -	119.4
4-Bromofluor	obenzene (4-BFB)		0.834	mg/Kg	1	1.00	83	52 -	117
Sample: 18 Laboratory:	6242 - AH-6 1-1.5'	(1' BEB	3)						
Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 56571 48338)	Analy Date Samp	ytical Method: Analyzed: ole Preparation	SM 4500 2009-02 : 2009-02	0-Cl B -03 -03	Prep M Analy: Prepa	Method: zed By: red By:	N/A AR AR
Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 56571 48338)	Analy Date Samp RL	ytical Method: Analyzed: ble Preparation	SM 4500 2009-02 : 2009-02	0-Cl B -03 -03	Prep M Analy: Prepar	Method: zed By: red By:	N/A AR AR
Analysis: QC Batch: Prep Batch: Parameter	Midland Chloride (Titration) 56571 48338 Flag)	Analy Date Samp RL Result	ytical Method: Analyzed: ble Preparation	SM 4500 2009-02- : 2009-02- Units	0-Cl B -03 -03	Prep M Analy: Prepar Dilution	Method: zed By: red By:	N/A AR AR RL_

Sample: 186242 - AH-6 1-1.5' (1' BEB)

n-Triacontan	.e <u>6</u>	492	mg/Kg	5	100	492	10 - 250.4
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
DRO			405	mg/I	ζg	5	50.0
Parameter	Fla	ag	RL Result	Uni	its	Dilution	RL_
Laboratory: Analysis: QC Batch: Prep Batch:	TPH DRO 56536 48301		Analytical Me Date Analyze Sample Prepa	ethod: Mod. 8 d: 2009-02 uration: 2009-02	3015B 2-02 2-02	Prep M Analyz Prepar	fethod: N/A ed By: LD ed By: LD

Sample: 186242 - AH-6 1-1.5' (1' BEB)

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 56568 48335	Analytical Method: Date Analyzed: Sample Preparation:	S 8015B 2009-02-02 2009-02-02	Prep Method: Analyzed By: Prepared By:	S 5035 ME AG
Daramatar	Flag	RL Besult	Unite	Dilution	זם
GRO		2.82	mg/Kg	1	1.00

⁶High surrogate recovery due to peak interference.

Report Date: February 6, 2009 115-6403679	Work Order: 9013031 St. Mary/Tirano CNG					Page Number: 18 of 35 Eddy County, NM		
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)		0.882 0.826	mg/Kg mg/Kg	1	1.00 1.00	88 83	68.5 - 119.4 52 - 117	

Sample: 186243 - AH-7 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland BTEX 56604 48366			Analytical Date Analy Sample Pre	Method: zed: paration:	S 8021B 2009-02-04 2009-02-04		Prep Meth Analyzed Prepared 3	nod: S 5035 By: ME By: ME
				\mathbf{RL}					
Parameter		Flag		\mathbf{Result}		Units		Dilution	\mathbf{RL}
Benzene	<u></u>			3.54		mg/Kg		10	0.0100
Toluene				36.7		mg/Kg		10	0.0100
Ethylbenzen	è			33.3		mg/Kg		10	0.0100
Xylene				76.9		mg/Kg		10	0.0100
<u></u>			Flor	Decult	Unite	Dilution	Spike	Percent	Recovery
Surrogate	(3.2.2.)		riag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		_	11.7	mg/Kg	10	10.0	117	49 - 129.7
4-Bromofluo	obenzene (4-B	FB) _	7	16.1	mg/Kg	10	10.0	161	45.2 - 144.3

Sample: 186243 - AH-7 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 56571 48338	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2009-02-03 2009-02-03	Prep Method: Analyzed By: Prepared By:	N/A AR AR
		RL			
Parameter	\mathbf{Flag}	Result	Units	Dilution	\mathbf{RL}
Chloride		<200	mg/Kg	50	4.00

Sample: 186243 - AH-7 0-1'

Laboratory: Analysis: QC Batch:	Midland TPH DRO 56536 48201	Analytical Method: Date Analyzed:	Mod. 8015B 2009-02-02	Prep Method: Analyzed By:	N/A LD
Prep Batch:	48301	Sample Preparation:	2009-02-02	Prepared By:	LD

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⁷High surrogate recovery due to peak interference.

Report Date: Feb 115-6403679	oruary 6, 200	9	Worl St. M	k Order: 901303 fary/Tirano CN	1 G	Page Nu Edd	mber: 19 of 35 y County, NM
Parameter	Fla	g	RL Result	Uni	ts	Dilution	RL
DRO			7800	mg/k	ζg	5	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	8	1160	mg/Kg	5	100	1160	10 - 250.4

Sample: 186243 - AH-7 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 56605 48366		Analytica Date Ana Sample Pi	l Method: lyzed: reparation:	S 8015B 2009-02-04 2009-02-04		Prep Me Analyzec Preparec	thod: S 5035 l By: ME l By: ME
			\mathbf{RL}					
Parameter	Flag		\mathbf{Result}		Units		Dilution	\mathbf{RL}
GRO			5280		mg/Kg		10	1.00
Surrogate		Flag	Result	Units	Dilution .	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)	- 9	12.6	mg/Kg	10	10.0	126	68.5 - 119.4
4-Bromofluo	robenzene (4-BFB)	10	66.0	mg/Kg	10	10.0	660	52 - 117

Sample: 186244 - AH-7 1-1.5'

Trifluorotolue	ne (TFT)	~	Flag	Result 11.7	Units mg/Kg	Dilution 10	Amount 10.0	Recovery 117	Limits 49 - 129.7
Darrogene			\mathbf{F} lag	Result	Units	Dilution	Amount	Recovery	Limits
Surrogate							Spike	Percent	Recovery
Xylene				6.07		mg/Kg		10	0.0100
Ethylbenzene				2.73		mg/Kg		10	0.0100
Toluene				1.40		mg/Kg		10	0.0100
Benzene				<0.100		mg/Kg	<u> </u>	10	0.0100
Parameter		Flag		RL		Units	Γ	Dilution	RL
Prep Batch:	48366			Sample Pre	paration:	2009-02-04		Prepared	By: ME
Laboratory: Analysis: QC Batch:	BTEX 56604			Analytical Date Analy	Method: zed:	S 8021B 2009-02-04		Prep Me Analyzed	thod: S 5035 l By: ME

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⁸High surrogate recovery due to peak interference. ⁹High surrogate recovery due to peak interference. ¹⁰High surrogate recovery due to peak interference.

Report Date: 115-6403679	Februarý 6, 2009		W St	Vork Order: . Mary/Tir	9013031 ano CNG		Page Nur Edd	mber: 20 of 35 y County, NM
Sample: 186	3244 - AH-7 1-1	.5'						
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titratio 56571 48338	on)	Analyt Date A Sample	tical Methoo Analyzed: e Preparatio	l: SM 450 2009-02 on: 2009-02	00-Cl B 2-03 2-03	Prep M Analyz Prepar	lethod: N/A ed By: AR ed By: AR
			\mathbf{RL}					
Parameter	Flag		Result		Units		Dilution	\mathbf{RL}
Chloride			<200		mg/Kg		50	4.00
Sample: 18	6244 - AH-7 1-1	.5'						
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 56536 48301		Analytical Date Anal Sample Pr	Method: lyzed: reparation:	Mod. 8015 2009-02-02 2009-02-02	В	Prep M Analyz Prepar	fethod: N/A zed By: LD red By: LD
Parameter	Flag		RL Result		Units		Dilution	RL
DRO			473		mg/Kg		1	50.0
Surrogate	Flag	Result	Units	Dilu	ition	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	147	mg/Kg		1 .	100	147	10 - 250.4
Sample: 18 Laboratory: Analysis: QC Batch: Prep Batch:	6244 - AH-7 1-1 Midland TPH GRO 56605 48366	5'	Analytical Date Anal Sample Pr	l Method: lyzed: reparation:	S 8015B 2009-02-04 2009-02-04	:	Prep Me Analyze Prepared	ethod: S 5035 d By: ME d By: ME
Parameter	Flag	;	RL Result		Units		Dilution	RL
GRO			517		mg/Kg		10	1.00
Surrogate		Flag_	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		9.99	mg/Kg	10	10.0	100	68.5 - 119.4
4-Bromofluor	robenzene (4-BFB)) 11	14.4	mg/Kg	10	10.0	144	52 - 117

¹¹High surrogate recovery due to peak interference.

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Report Date 115-6403679	: February 6, 2009		V St	Vork Order: Mary/Tir	9013031 ano CNG		Page Nur Edd	mber: 2 y Coun	1 of 35 ty, NM
Sample: 18	6245 - AH-7 2-2.8	5'							
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration 56572 48339	n)	Analy Date A Sampl	tical Method Analyzed: e Preparatio	d: SM 450 2009-02 on: 2009-02	00-Cl B 2-03 2-03	Prep M Analyz Prepar	fethod: ed By: ed By:	N/A AR AR
			RL						
Parameter	Flag	·	Result		Units		Dilution		
			< 200		mg/Kg				4.00
Sample: 18	6245 - AH-7 2-2.	5'							
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 56560 48328		Analytica Date Ana Sample Pi	l Method: lyzed: reparation:	Mod. 8015 2009-02-03 2009-02-03	В	Prep M Analyz Prepar	Aethod: æd By: æd By:	N/A LD LD
			DÍ						
Parameter	Flag		\mathbf{R}		Units		Dilution		\mathbf{RL}
DRO	0		503		mg/Kg		1		50.0
_						Cuilto	Banaant	 D.	
Surrogate	Flag	Result	Units	Dilı	ition	Amount	Recovery	L	imits
n-Triacontan	ee	152	mg/Kg		1	100	152	10	- 250.4
Sample: 18 Laboratory: Analysis: QC Batch: Prep Batch:	6245 - AH-7 2-2. Midland TPH GRO 56605 48366	5'	Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8015B 2009-02-04 2009-02-04	k k	Prep Me Analyze Preparec	ethod: d By: d By:	S 5035 ME ME
Parameter GRO	Flag		RL Result 250		Units mg/Kg	<u> </u>	Dilution 10		RL 1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Rec	covery mits
Trifluorotolu	ene (TFT)	10	9.02	mg/Kg	10	10.0	90	68.5	- 119.4
4-Bromofluo	robenzene (4-BFB)		11.9	mg/Kg	10	10.0	119	52	- 117

¹²High surrogate recovery due to peak interference.

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Report Date: February 6, 2009 115-6403679		Wor St. 1	rk Order: Mary/Tii	9013031 ano CNG		Page Nu Edo	mber: 22 of 35 ly County, NM
Method Blank (1) QC Ba	tch: 56536						
QC Batch: 56536 Prep Batch: 48301		Date Analy QC Prepara	zed: 20 ation: 20)09-02-02)09-02-02		Analy Prepa	vzed By: LD ared By: LD
			MDL				
Parameter	Flag		Result		U	Inits	RL
			<12.0	·	III;	g/Kg	50
Surrogate Flag	Result	Units	Dilut	tion	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	95.3	mg/Kg	1		100	95	30.9 - 146.4
QC Batch: 56560 Prep Batch: 48328	tcn: 56560	Date Analy QC Prepara	zed: 20 ation: 20 MDL	009-02-03 009-02-03		Anal Prep	yzed By: LD ared By: LD
Parameter	Flag		Result		t	Jnits	<u>RL</u>
			12.0			g/ IZG	00
Surrogate Flag	Result	Units	Dilu	tion	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	79.0	mg/Kg	1		100	79	30.9 - 146.4
Method Blank (1) QC Ba QC Batch: 56568 Prep Batch: 48335	.tch: 56568	Date Analy QC Prepara	zed: 20 ation: 20)09-02-02)09-02-02		Analy Prepa	vzed By: ME ared By: ME
Parameter	Flag		MDL Result		τ	Units	\mathbf{RL}
GRO			<0.482	<u>,</u>	m	ng/Kg	11
Surrogate	Flag	Result	Units	Dilutio	Spike n Amount	Percent t Recovery	Recovery Limits
Trinuorotoluene (TF1)		0.923	mg/Kg	1	1.00	9Z	75.8 - 98.5

QC Batch:	56570	Date Analyzed:	2009-02-03	Analyzed By:	\mathbf{AR}
Prep Batch:	48337	QC Preparation:	2009-02-03	Prepared By:	AR

Method Blank (1)

QC Batch: 56570

Report Date: February 6, 2009 Work Order: 9013031 St. Mary/Tirano CNG I Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56571 Date Analyzed: 2009-02-03 Per Batch: 48338 QC Preparation: 2009-02-03 Parameter Flag Result Units Chloride <2.01 mg/Kg MDL Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56572 Date Analyzed: 2009-02-03 Prep Batch: 48339 QC Preparation: 2009-02-03 Prep Batch: 48339 QC Preparation: 2009-02-03 Parameter Flag Result Units Chloride <2.01 mg/Kg MDL Parameter Flag Result Units Chloride <2.01 mg/Kg MDL Method Blank (1) QC Batch: 56604 QC Preparation: 2009-02-04 QC Batch: 56604 Date Analyzed: 2009-02-04 Prep Batch: 48306 QC Preparati	Page Number: 23 of 35 Eddy County, NM RL 4 Analyzed By: AR Prepared By: AR RL 4
MDL Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56571 Date Analyzed: 2009-02-03 Prep Batch: 48338 QC Preparation: 2009-02-03 Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56572 MDL QC Batch: 56572 Date Analyzed: 2009-02-03 Prep Batch: 48339 QC Preparation: 2009-02-03 Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56672 Date Analyzed: 2009-02-03 Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56604 QC Preparation: 2009-02-04 QC Batch: 56604 Date Analyzed: 2009-02-04 Prep Batch: 48366 QC Preparation: 2009-02-04 MDL MDL MDL	RL 4 Analyzed By: AR Prepared By: AR RL 4
Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56571 Date Analyzed: 2009-02-03 QC Batch: 56571 Date Analyzed: 2009-02-03 Prep Batch: 48338 QC Preparation: 2009-02-03 Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56572 Date Analyzed: 2009-02-03 QC Batch: 56572 Date Analyzed: 2009-02-03 Prep Batch: 48339 QC Preparation: 2009-02-03 Parameter Flag Result Units Chloride <2.01 mg/Kg MbL Units MDL Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56604 QC Preparation: 2009-02-04 QC Batch: 56604 Date Analyzed: 2009-02-04 Prep Batch: 48366 QC Preparation: 2009-02-04 MDL MDL MDL	RL 4 Analyzed By: AR Prepared By: AR RL 4
Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56571 Date Analyzed: 2009-02-03 Prep Batch: 56571 Date Analyzed: 2009-02-03 Prep Batch: 48338 QC Preparation: 2009-02-03 Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56572 Date Analyzed: 2009-02-03 QC Batch: 56572 Date Analyzed: 2009-02-03 Prep Batch: 48339 QC Preparation: 2009-02-03 Parameter Flag MDL Parameter Flag Result Units Chloride <2.01 mg/Kg MDL 2.01 mg/Kg Method Blank (1) QC Batch: 56604 Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56604 Date Analyzed: 2009-02-04 QC Batch: 56604 Date Analyzed: 2009-02-04 Prep Batch: 48366 QC Preparation: 2009-02-04 MDL MDL MDL	Analyzed By: AR Prepared By: AR RL
Method Blank (1) QC Batch: 56571 QC Batch: 56571 Prep Batch: 48338 QC Preparation: 2009-02-03 MDL MDL Parameter Flag Result Units Chloride <2.01	Analyzed By: AR Prepared By: AR
Method Blank (1) QC Batch: 56571 QC Batch: 56571 Prep Batch: 48338 QC Preparation: 2009-02-03 MDL MDL Parameter Flag Result Units Chloride <2.01 Method Blank (1) QC Batch: 56572 QC Batch: 56572 Date Analyzed: 2009-02-03 Prep Batch: 48339 QC Preparation: 2009-02-03 MDL MDL Parameter Flag Result Units MDL QC Batch: S6572 Date Analyzed: QC Batch: 56572 MDL MDL Parameter Flag Result Units Chloride <2.01 Method Blank (1) QC Batch: QC Batch: 56604 QC Preparation: 2009-02-04 Prep Batch: 48366 QC Preparation: 2009-02-04	Analyzed By: AR Prepared By: AR RL 4
QC Batch: 56571 Date Analyzed: 2009-02-03 Prep Batch: 48338 QC Preparation: 2009-02-03 MDL Parameter Flag Result Units Chloride <2.01	Analyzed By: AR Prepared By: AR
Prep Batch: 48338 QC Preparation: 2009-02-03 MDL Result Units Chloride <2.01	Prepared By: ARRL4
MDL MDL Parameter Flag Result Units Chloride <2.01	RL 4
MDL Parameter Flag Result Units Chloride <2.01	<u>RL</u> 4
Parameter Prag Result Units Chloride <2.01	<u>RL</u> 4
Method Blank (1) QC Batch: 56572 QC Batch: 56572 Prep Batch: 48339 QC Preparation: 2009-02-03 MDL Parameter Flag Chloride <2.01	4
QC Batch:56572 Prep Batch:Date Analyzed:2009-02-03 QC Preparation:MDL 2009-02-03ParameterFlagResultUnitsChloride<2.01	
Prep Batch: 48339 QC Preparation: 2009-02-03 MDL MDL Parameter Flag Result Units Chloride <2.01 mg/Kg Method Blank (1) QC Batch: 56604 QC Batch: 56604 Date Analyzed: 2009-02-04 Prep Batch: 48366 QC Preparation: 2009-02-04	Analyzed By: AR
MDL Parameter Flag Result Units Chloride <2.01	Prepared By: AR
MDL Parameter Flag Result Units Chloride <2.01	
Parameter Prag Result Omits Chloride <2.01	DI
Method Blank (1) QC Batch: 56604 QC Batch: 56604 Prep Batch: 48366 QC Preparation: 2009-02-04 MDL	
Method Blank (1) QC Batch: 56604 QC Batch: 56604 Date Analyzed: 2009-02-04 Prep Batch: 48366 QC Preparation: 2009-02-04 MDL	
QC Batch:56604Date Analyzed:2009-02-04Prep Batch:48366QC Preparation:2009-02-04MDLMDL	
Prep Batch: 48366 QC Preparation: 2009-02-04 MDL	Analyzed By: ME
MDL	Prepared By: ME
MDL	
Voramotor Blad Vogult Unite	זמ
Parameter Prag Result Units Bonzono <0.00100	
Toluene <0.00100 mg/Kg	0.01
Ethylbenzene <0.00110 mg/Kg	0.01
Xylene <0.00360 mg/Kg	0.01
Spike Pe	0.01
Surrogate Flag Result Units Dilution Amount Re-	0.01 0.01 ercent Recovery
Trifluorotoluene (TFT)1.18mg/Kg11.00	0.01 0.01 ercent Recovery covery Limits
4-Bromofluorobenzene (4-BFB)1.21mg/Kg11.00	0.01 0.01 ercent Recovery covery Limits 118 65.6 - 130.6

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115-6403679	3, 2009			Work Ord St. Mary/	ler: 90130 Tirano C	0 31 'NG		Page N E	lumber: 2 Idy Cour	14 of 35 ty, NM
Method Blank (1)	QC Batc	h: 56605								
QC Batch: 56605 Prep Batch: 48366			Date Ar OC Pre	nalyzed:	2009-02-	-04 -04		Ana Prei	lyzed By: pared By:	ME ME
Trop Daten. 10000			40110	puration.	2000 02	•••		1101	urou bji	
Parameter	ı ب	ຈອ		MI Res	DL		Цт	vits		BI.
GRO		<u>a</u> <u>6</u>		<0.4	182		mg	/Kg		1
		Flag	Posult	IInite	Dil	ution	Spike	Percent	Rec	overy
Trifluorotoluene (TFT)			0.926	mg/Ki	<u></u>	1	1.00	<u></u>	75.8	- 98.5
4-Bromofluorobenzene (4	l-BFB)	_	0.941	mg/Kg	5	1	1.00	94	56.5	- 109.5
Param		LCS Resu	3 lt	Units	Dil.	Spike Amount	Mat Res	rix ult Rec.		lec. imit
				117	-		. 1 (110	070	120 1
DRO	l on the er	279		ng/Kg basad an i	1	250	<12	2.0 112	27.8	- 152.1
DRO Percent recovery is based	l on the sp	279 pike result.	RPD is	ng/Kg based on 1	1 the spike	and spike	<12 duplicate	result.	27.8	- 152.1
DRO Percent recovery is based	l on the sp	279 pike result. LCSD Besult	RPD is	ng/Kg based on 1 Dil	1 the spike Spike	and spike Matrix Bosult	<12 duplicate	result. Rec.	27.8 RPD	- <u>152.1</u> RPD
DRO Percent recovery is based Param DRO	l on the sp	279 pike result. LCSD Result 301	RPD is Units mg/Kg	ng/Kg based on t Dil. 1	1 the spike Spike Amount 250	and spike Matrix Result <12.0	<12 duplicate Rec. 120	2.0 112 result. Rec. Limit 27.8 - 152.1	27.8 	- 152.1 RPD Limit 20
DRO Percent recovery is based Param DRO Percent recovery is based	d on the sp	279 pike result. LCSD Result 301 pike result.	RPD is Units mg/Kg RPD is	ng/Kg based on Dil. 1 based on	1 the spike Spike Amount 250 the spike	and spike Matrix Result <12.0 and spike	<12 duplicate Rec. 120 duplicate	2.0 112 result. Rec. Limit 27.8 - 152.1 result.	27.8 <u>RPD</u> 8	- 152.1 RPD Limit 20
DRO Percent recovery is based Param DRO Percent recovery is based	i on the sp d on the sp LCS	279 pike result. LCSD Result 301 pike result. LCSD	RPD is Units mg/Kg RPD is	ng/Kg based on t Dil. 1 based on t	1 Spike Amount 250 the spike	and spike Matrix Result <12.0 and spike Spike	<12 duplicate Rec. 120 duplicate LC	2.0 112 result. Rec. Limit 27.8 - 152.1 result. CS LCSI	27.8 <u>RPD</u> 8	- <u>152.1</u> RPD Limit 20 Rec.
DRO Percent recovery is based Param DRO Percent recovery is based Surrogate	i on the sp d on the sp LCS Result	279 pike result. LCSD Result 301 pike result. LCSE Result	RPD is Units mg/Kg RPD is	ng/Kg based on t Dil. 1 based on t Units	1 Spike Amount 250 the spike Dil.	and spike Matrix Result <12.0 and spike Spike Amoun	<12 duplicate Rec. 120 duplicate LC t Re	2.0 112 result. Rec. Limit 27.8 - 152.1 result. C. Rec.	27.8 	- 152.1 RPD Limit 20 Rec. Limit
DRO Percent recovery is based Param DRO Percent recovery is based Surrogate n-Triacontane	i on the sp d on the sp LCS Result 96.7	279 pike result. LCSD Result 301 pike result. LCSD Result 99.0	RPD is Units mg/Kg RPD is t 1	ng/Kg based on t Dil. 1 based on t Units ng/Kg	1 the spike Spike Amount 250 the spike Dil. 1	and spike Matrix Result <12.0 and spike Spike Amoun 100	<12 duplicate Rec. 120 duplicate LC t Re 97	2.0 112 result. <u>Limit</u> 27.8 - 152.1 result. 2S LCSE c. Rec. 7 99	27.8 <u>RPD</u> 8) 38	- 152.1 RPD Limit 20 Rec. Limit - 130.4
DRO Percent recovery is based Param DRO Percent recovery is based Surrogate n-Triacontane Laboratory Control S QC Batch: 56560	d on the sp d on the sp LCS Result 96.7 Spike (LC	279 pike result. LCSD Result 301 pike result. LCSE Result 99.0	RPD is Units mg/Kg RPD is t 1 m	ng/Kg based on t Dil. 1 based on t Units ng/Kg	1 Spike Amount 250 the spike Dil. 1 2009-02	and spike Matrix Result <12.0 and spike Spike Amoun 100	<12 duplicate Rec. 120 duplicate LC t Re 97	2.0 112 result. Rec. Limit 27.8 - 152.1 result. 2S LCSI c. Rec. 7 99	27.8 <u>RPD</u> 8 38 alyzed By	- 152.1 RPD Limit 20 Rec. Limit - 130.4
DRO Percent recovery is based Param DRO Percent recovery is based Surrogate n-Triacontane Laboratory Control S QC Batch: 56560 Prep Batch: 48328	d on the sp LCS Result 96.7	279 pike result. LCSD Result 301 pike result. LCSD Result 99.0	RPD is Units mg/Kg RPD is t I m Date A QC Press	ng/Kg based on t Dil. 1 based on t Units ng/Kg nalyzed: eparation:	1 the spike Spike Amount 250 the spike Dil. 1 2009-02 2009-02	250 and spike Matrix Result <12.0 and spike Spike Amoun 100 2-03 2-03	<12 duplicate Rec. 120 duplicate LC t Re 97	2.0 112 result. Rec. Limit 27.8 - 152.1 result. 2S LCSI c. Rec. 7 99	27.8 RPD 8 38 alyzed By epared By	- 152.1 RPD Limit 20 Rec. Limit - 130.4
DRO Percent recovery is based Param DRO Percent recovery is based Surrogate n-Triacontane Laboratory Control S QC Batch: 56560 Prep Batch: 48328	i on the sp d on the sp LCS Result 96.7	279 pike result. LCSD Result 301 pike result. LCSE Result 99.0	RPD is <u>Units</u> mg/Kg RPD is t 1 m Date A QC Pro	ng/Kg based on t Dil. 1 based on t Units ng/Kg nalyzed: eparation:	1 the spike Amount 250 the spike Dil. 1 2009-02 2009-02	250 and spike Matrix Result <12.0 and spike Spike Amoun 100 2-03 2-03 2-03	<12 duplicate Rec. 120 duplicate LC t Re 97	2.0 112 result. Rec. Limit 27.8 - 152.1 result. 2S LCSI c. Rec. 7 99	27.8 RPD 8 38 alyzed By epared By	- 152.1 RPD Limit 20 Rec. Limit - 130.4 7: LD 7: LD Rec.

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

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	258	mg/Kg	1	250	<12.0	103	27.8 - 152.1	1 9	20
Percent recovery is based on the s	pike result.	RPD is	based o	n the spike	and spike o	luplicate	result.		
LCS	LCSD				Spike	LC	S LCS	D	Rec.
Surrogate Result	Result	ι	Inits	Dil.	Amount	Ree	. Rec	2.	Limit
n-Triacontane 102	94.3	m	g/Kg	1	100	10	2 94	38	3 - 130.4
QC Batch: 56568 Prep Batch: 48335		Date Aı QC Pre	ialyzed: paration	2009-02 a: 2009-02	-02 -02		Aı Pı	nalyzed B repared By	7: ME 7: ME
_	LCS			D .1	Spike	Mat	rix		Rec.
l'aram	Resu	.t	Units	Dil.	Amount	Res	ilt Rec		Limit
<u>GRO</u>	0.14	n	ng/Kg	<u> </u>	10.0	<0.4	82 61	60.	<u>s - 100.1</u>
Param GRO	LCSD Result 6.28	Units mg/Kg	Dil1	Spike Amount 10.0	Matrix Result <0.482	Rec.	Rec. Limit 60.5 - 100.	RPD 1 2	RPD Limit 20
Percept recovery is based on the s	pike result.	RPD is	based o	on the spike	and spike	duplicate	result.		
· · · · · · · · · · · · · · · · · · ·	LCS	\mathbf{LC}	SD		Sp	ike	LCS LC	SD	Rec.
Surrogate	LCS Resul	LC t Res	SD sult	Units	Sp Dil. Am	ike ount	LCS LC Rec. Re	SD xc.	Rec. Limit
Surrogate Trifluorotoluene (TFT)	LCS Resul 0.974	LC t Res 0.9	SD sult 980 :	Units 1 mg/Kg	Sp Dil. Am 1 1	ike ount 00	LCS LC Rec. Re 97 9	SD sc. 8 78.	Rec. Limit 8 - 104.7
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	LCS Resul 0.974 0.757	LC t Re: 0.9	SD sult 980 715	Units 1 mg/Kg mg/Kg	Sp Dil. Am 1 1 1 1	ike ount 00 00	LCS LC Rec. Re 97 90 76 7	SD sc. 8 78. 2 66.	Rec. Limit 8 - 104.7 1 - 107.3
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (Lo QC Batch: 56570 Prep Batch: 48337	LCS Resul 0.974 0.757 CS-1)	LC t Rei 0.9 0.7 Date A QC Pre	SD sult 180 15 nalyzed eparatio	Units 1 mg/Kg mg/Kg : 2009-02 n: 2009-02	Sp <u>Dil. Am</u> 1 1. 1 1. -03 -03	ike ount 00 00	LCS LC3 Rec. Re 97 90 76 7 A P	SD 8 78. 2 66. nalyzed H repared B	Rec. Limit 8 - 104.7 1 - 107.3 y: AR y: AR
Surrogate Trifluorotoluene (TFT) <u>4-Bromofluorobenzene (4-BFB)</u> Laboratory Control Spike (Lo QC Batch: 56570 Prep Batch: 48337	LCS <u>Resul</u> 0.974 0.757 CS-1)	LC t Re: 0.2 0.7 Date A QC Pre	SD sult 180 115 nalyzed eparatio	<u>Units</u> mg/Kg mg/Kg : 2009-02 n: 2009-02	Sp <u>Dil. Am</u> <u>1</u> 1. <u>1</u> 1. -03 -03 Spike	ike ount 00 00	LCS LC Rec. Re 97 96 76 7 A P fatrix	SD ac. 8 78. 2 66. nalyzed H repared B	Rec. Limit 8 - 104.7 1 - 107.3 y: AR y: AR Rec.
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (Lo QC Batch: 56570 Prep Batch: 48337	LCS Resul 0.974 0.757 CS-1) LC Res	LC t Re: 0.1 0.7 Date A QC Pre S ilt	SD sult 180 (15 nalyzed eparatio	Units 1 mg/Kg mg/Kg : 2009-02 n: 2009-02 Dil.	Sp <u>Dil. Am</u> <u>1</u> 1. <u>1</u> 1. <u>-03</u> -03 -03 Spike <u>Amoun</u> <u>100</u>	ike ount 00 00 00 nt I	LCS LC Rec. Re 97 90 76 7 A P fatrix tesult -2.01	SD ac. 8 78. 2 66. nalyzed B repared B Rec.	Rec. <u>Limit</u> 8 - 104.7 1 - 107.3 y: AR y: AR y: AR Rec. <u>Limit</u> 85 - 115
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 56570 Prep Batch: 48337 Param Chloride Percent recovery is based on the	LCS Resul 0.974 0.757 CS-1) LC Res 10 spike result	LC t Re: 0.5 0.7 Date A QC Pre S 1lt 3 RPD is	SD sult 180 115 nalyzed eparatio Units mg/Kg based o	Units 1 mg/Kg mg/Kg : 2009-02 n: 2009-02 Dil. : 1 on the spike	Sp Dil. Am 1 1. 1 1. -03 -03 -03 Spike Amoun 100 and spike	ike ount 00 00 nt I	LCS LC: Rec. Re 97 99 76 7' A P fatrix tesult <2.01	SD ac. 8 78. 2 66. nalyzed B repared B Rec. 103	Rec. <u>Limit</u> 8 - 104.7 1 - 107.3 y: AR y: AR Rec. <u>Limit</u> 85 - 115
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (Le QC Batch: 56570 Prep Batch: 48337 Param Chloride Percent recovery is based on the	LCS Resul 0.974 0.757 CS-1) LC Res 10 spike result.	LC t Re: 0.9 0.7 Date A QC Pre S 1lt RPD is	SD sult 180 (15 paratio Units mg/Kg based c	Units 1 mg/Kg mg/Kg : 2009-02 n: 2009-02 Dil. : 1 on the spike	Sp Dil. Am 1 1. 1 1. -03 -03 -03 Spike Amoun 100 and spike	ike ount 00 00 00 nt I duplicate	LCS LC: Rec. Re 97 90 76 7 A P fatrix tesult <2.01 result.	SD ac. B 78. 2 66. nalyzed B repared B Rec. 103	Rec. Limit 8 - 104.7 1 - 107.3 y: AR y: AR y: AR Rec. Limit 85 - 115
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (Lo QC Batch: 56570 Prep Batch: 48337 Param Chloride Percent recovery is based on the Param	LCS Resul 0.974 0.757 CS-1) LCS Epike result. LCSD Result	LC t Re: 0.5 0.7 Date A QC Pre S ult 3 RPD is	SD sult 180 (15 malyzed eparatio Units mg/Kg based o	Units 1 mg/Kg mg/Kg : 2009-02 n: 2009-02 Dil. Dil. 1 on the spike Spike	Sp Dil. Am 1 1. 1 1. -03 -03 -03 Spike Amoun 100 and spike Matri at Resul	ike ount 00 00 nt I duplicate x	LCS LC Rec. Re 97 90 76 7' A P fatrix tesult <2.01 result. Rec. Limit	SD ac. 8 78. 2 66. nalyzed H repared B Rec. 103	Rec. <u>Limit</u> 8 - 104.7 1 - 107.3 by: AR y: AR y: AR Rec. <u>Limit</u> 85 - 115 RPD Limit

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······································	· · · · - · - ·					·		
Laboratory Control Spike (I	JCS-1)							
QC Batch: 56571	Dat	e Analyzed:	2009-02-03	3		Anal	lyzed By	: AR
Prep Batch: 48338	QC	Preparation:	2009-02-03	3		Prep	ared By	: AR
	LCS			Snike	Matrix			Rec.
Param	Result	Units	Dil.	Amount	Result	Re	c.	Limit
Chloride	98.7	mg/Kg	1	100	<2.01	99	3 6	35 - 115
Percent recovery is based on the	spike result. RPI) is based on	the spike an	d spike du	plicate result			
	LCSD		Spike	Matrix]	lec.		RPD
Param	Result U	nits Dil.	Amount	Result	Rec. L	imit	RPD	Limit
Chloride	99.6 mg	g/Kg 1	100	<2.01	100 85	- 115	1	20
Percent recovery is based on the	spike result. RPI) is based on	the spike an	nd spike du	plicate result	-	•	
Laboratory Control Spike (I	CR 1)							
	11,117=11							
OG Batah. 56579	Dot 1)	a Analugad	0000 09 0	9		A	lamo d D.	AD
QC Batch: 56572 Prep Batch: 48339	Dat OC	e Analyzed: Preparation:	2009-02-0 2009-02-0	3		Ana Prer	lyzed By pared By	7: AR 7: AR
QC Batch: 56572 Prep Batch: 48339	Dat QC	e Analyzed: Preparation:	2009-02-0 2009-02-0	3		Ana Prep	lyzed By pared By	7: AR 7: AR
QC Batch: 56572 Prep Batch: 48339	Dat QC LCS	e Analyzed: Preparation:	2009-02-0 2009-02-0	3 3 Spike	Matrix	Ana Prep	lyzed By pared By	7: AR 7: AR Rec.
QC Batch: 56572 Prep Batch: 48339 Param	Dat QC LCS Result	te Analyzed: Preparation: Units	2009-02-0 2009-02-0 Dil.	3 3 Spike Amount	Matrix Result	Ana Prep Re	lyzed By bared By ec.	7: AR 7: AR Rec. Limit
QC Batch: 56572 Prep Batch: 48339 Param Chloride	Dat QC LCS <u>Result</u> 99.8	e Analyzed: Preparation: Units mg/Kg	2009-02-0 2009-02-0 Dil.	3 3 Spike <u>Amount</u> 100	Matrix Result <2.01	Ana Prep Re 10	lyzed By pared By ec.	7: AR 7: AR Rec. Limit 85 - 115
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the	Dat QC LCS Result 99.8 e spike result. RPI	te Analyzed: Preparation: Units mg/Kg D is based on	2009-02-0 2009-02-0 Dil. 1 the spike ar	3 3 Spike Amount 100 1d spike du	Matrix Result <2.01 plicate result	Ana Prep Re 10	lyzed By pared By ec. 00 {	7: AR 7: AR Rec. Limit 85 - 115
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the	Dat QC LCS Result 99.8 e spike result. RPI LCSD	e Analyzed: Preparation: Units mg/Kg D is based on	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike	3 3 Spike <u>Amount</u> 100 nd spike du Matrix	Matrix Result <2.01 plicate result	Ana Prep <u>Re</u> 10 Rec.	lyzed By pared By c. 00 {	7: AR 7: AR Rec. Limit 85 - 115 RPD
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param	Dat QC LCS Result 99.8 e spike result. RPI LCSD Result U	e Analyzed: Preparation: <u>Units</u> mg/Kg D is based on fnits Dil.	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount	3 3 Spike <u>Amount</u> 100 1d spike du Matrix Result	Matrix Result <2.01 plicate result Rec. I	Ana Prep Re 10	lyzed By pared By ec. 00 8 RPD	r: AR Rec. Limit 85 - 115 RPD Limit
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride	Dat QC LCS Result 99.8 e spike result. RPI LCSD Result U 101 mg	units Units mg/Kg D is based on nits Dil. g/Kg 1	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100	3 3 Spike Amount 100 Id spike du Matrix Result <2.01	Matrix Result <2.01 plicate result Rec. I 101 85	Ana Prep Re 10	lyzed By bared By ec. 00 4 RPD 1	7: AR 7: AR Rec. Limit 85 - 115 RPD Limit 20
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the	Dat QC LCS Result 99.8 e spike result. RPI LCSD Result U 101 mq e spike result. RPI	Units Units mg/Kg D is based on nits Dil. g/Kg I D is based on	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar	3 3 Spike <u>Amount</u> 100 1d spike du Matrix Result <2.01 1d spike du	Matrix Result <2.01 plicate result Rec. I 101 85 plicate result	Ana Prep Rec 	lyzed By pared By ec. 00 8 RPD 1	7: AR 7: AR Rec. Limit 85 - 115 RPD Limit 20
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (1	Dat QC LCS Result 99.8 e spike result. RP LCSD Result U 101 mp e spike result. RP LCS-1)	units Units mg/Kg D is based on nits Dil. g/Kg 1 D is based on	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar	3 3 Spike Amount 100 Id spike du Matrix Result <2.01 Id spike du	Matrix Result <2.01 plicate result <u>Rec. I</u> 101 85 plicate result	Ana Prep Rec. imit - 115	lyzed By pared By ec. 00 a RPD 1	7: AR 7: AR Rec. Limit 85 - 115 RPD Limit 20
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (1 OC Batch: 56604	Dat QC LCS Result 99.8 e spike result. RPI LCSD Result U 101 mg e spike result. RPI LCS-1)	Units Units mg/Kg D is based on nits Dil. g/Kg 1 D is based on	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar 2009-02-0	3 3 Spike <u>Amount</u> 100 1d spike du Matrix Result <2.01 1d spike du	Matrix Result <2.01 plicate result <u>Rec. I</u> 101 85 plicate result	Ana Prep Rec. imit - 115	lyzed By pared By c. 00 2 RPD 1	7: AR 7: AR Rec. Limit 85 - 115 RPD Limit 20 7: ME
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (1 QC Batch: 56604 Prep Batch: 48366	Dat QC LCS Result 99.8 e spike result. RPI LCSD Result U 101 ma e spike result. RPI LCS-1) Dat QC	Units Units mg/Kg D is based on nits Dil. g/Kg 1 D is based on c based on c based on c based on c based on c based on	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar 2009-02-0 2009-02-0	3 3 Spike Amount 100 nd spike du Matrix Result <2.01 nd spike du	Matrix Result <2.01 plicate result Rec. I 101 85 plicate result	Ana Prep Rec. imit - 115 Ana Prep	lyzed By pared By cc. 00	r: AR Rec. Limit 85 - 115 RPD Limit 20
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (19 QC Batch: 56604 Prep Batch: 48366	Dat QC LCS Result 99.8 e spike result. RPI LCSD Result U 101 ma e spike result. RPI LCS-1) Dat QC	units Units mg/Kg D is based on nits D is based on Symptotic based on control based on the Analyzed: Preparation:	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar 2009-02-0 2009-02-0	3 3 Spike <u>Amount</u> 100 nd spike du Matrix <u>Result</u> <2.01 nd spike du 4	Matrix Result 2.01 plicate result <u>Rec. I</u> 101 85 plicate result	Ana Prep Rec. imit - 115 Ana Prep	lyzed By pared By c. 00 (RPD 1 1 lyzed By pared By	r: AR Rec. Limit 85 - 115 RPD Limit 20
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (1 QC Batch: 56604 Prep Batch: 48366	LCS LCS Result 99.8 e spike result. RPI LCSD Result U 101 ma e spike result. RPI LCS-1) Dat QC LCS	units Units mg/Kg D is based on nits Dil. g/Kg 1 D is based on call base	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar 2009-02-0 2009-02-0	3 3 Spike Amount 100 Id spike du Matrix Result <2.01 Id spike du	Matrix Result <2.01 plicate result Rec. I 101 85 plicate result	Ana Prep Rec. imit - 115	lyzed By bared By c. 00 - 1 	r: AR Rec. Limit 85 - 115 RPD Limit 20 r: ME r: ME Rec.
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (1 QC Batch: 56604 Prep Batch: 48366 Param	LCS - 1) Dat QC LCS Result 99.8 e spike result. RPI LCSD Result U 101 ma e spike result. RPI LCS-1) Dat QC LCS Result	e Analyzed: Preparation: Units mg/Kg D is based on nits Dil. g/Kg 1 D is based on the Analyzed: Preparation: Units	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar 2009-02-0 2009-02-0 2009-02-0	3 3 Spike <u>Amount</u> 100 nd spike du Matrix <u>Result</u> <2.01 nd spike du 4 4 Spike mount	Matrix Result 2.01 plicate result Rec. I 101 85 plicate result Matrix Result	Ana Prep Rec. imit - 115 - Ana Prep Rec.	lyzed By pared By c. 00 (1) RPD 1 lyzed By pared By	 AR Rec. Limit 85 - 115 RPD Limit 20 7: ME : ME : ME Rec. Limit
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (1 QC Batch: 56604 Prep Batch: 48366 Param Benzene	LCS Result 99.8 e spike result. RPI LCSD Result U 101 mq e spike result. RPI LCS-1) Dat QC LCS Result 1.07	Units Units mg/Kg D is based on inits Dil. g/Kg 1 D is based on te Analyzed: Preparation: Units mg/Kg	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar 2009-02-0 2009-02-0 2009-02-0 2009-02-0	3 3 Spike <u>Amount</u> 100 Id spike du Matrix <u>Result</u> <2.01 Id spike du 4 4 Spike <u>mount</u> 1.00	Matrix Result 2.01 plicate result 101 85 plicate result Matrix Result <0.00100	Ana Prep Rec. imit - 115 - Ana Prep Rec. 107	lyzed By pared By c. 00 4 RPD 1 lyzed By pared By pared By	 AR Rec. Limit 85 - 115 RPD Limit 20
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (1 QC Batch: 56604 Prep Batch: 48366 Param Benzene Toluene	LCS Result 99.8 e spike result. RPI LCSD Result U 101 may e spike result. RPI LCS-1) Dat QC LCS Result 1.07 1.08	Units Units mg/Kg D is based on (nits Dil. g/Kg 1 D is based on (nits b	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar 2009-02-0 2009-02-0 2009-02-0 Dil. A 1 1	3 3 Spike Amount 100 Id spike du Matrix Result <2.01 Id spike du 4 4 4 Spike mount 1.00 1.00	Matrix Result 2.01 plicate result Rec. I 101 85 plicate result Matrix Result <0.00100 <0.00100	Ana Prep Rec. imit - 115 - - - - - - - - - - - - - - - - - -	lyzed By pared By ec. 00 2 RPD 1 1 lyzed By pared By 1 72.7 71.6	 AR Rec. Limit 85 - 115 RPD Limit 20
QC Batch: 56572 Prep Batch: 48339 Param Chloride Percent recovery is based on the Param Chloride Percent recovery is based on the Laboratory Control Spike (1 QC Batch: 56604 Prep Batch: 48366 Param Benzene Toluene Ethylbenzene	LCS I) Dat QC LCS Result 99.8 e spike result. RPI LCSD Result U 101 ma e spike result. RPI LCS-1) Dat QC LCS Result 1.07 1.08 1.09	Units Units mg/Kg D is based on <u>fnits</u> Dil. g/Kg 1 D is based on is based on ce Analyzed: Preparation: <u>Units</u> mg/Kg mg/Kg mg/Kg	2009-02-0 2009-02-0 Dil. 1 the spike ar Spike Amount 100 the spike ar 2009-02-0 2009-02-0 2009-02-0 2009-02-0 2009-02-0	3 3 Spike Amount 100 Id spike du Matrix Result <2.01 Id spike du 4 4 4 Spike mount 1.00 1.00 1.00	Matrix Result <2.01 plicate result Rec. I 101 85 plicate result Matrix Result <0.00100 <0.00110	Ana Prep Rec. imit - 115 - - - - - - - - - - - - - - - - - -	lyzed By pared By cc. 00 8 RPD 1 lyzed By pared By 72.7 71.6 70.8	 AR Rec. Limit 85 - 115 RPD Limit 20 7: ME : ME : ME Rec. Limit 7 - 129.8 3 - 129.6 3 - 129.7

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	LCSD			Spike	Ma	atrix		Т	Rec		RPD.
Param	Result	Units	s Dil.	Amount	Re	esult	Rec.	Ĺ	imit	RPD	Limit
Benzene	1.09	mg/K	g 1	1.00	<0.	00100	109	72.7	- 129.8	2	20
Toluene	1.10	mg/K	g 1	1.00	<0.	00100	110	71.6	- 129.6	2	20
Ethylbenzene	1.12	mg/K	g 1	1.00	<0.	00110	112	70.8	- 129.7	3	20
Xylene	3.44	mg/K	.g 1	3.00	<0.	00360	115	70.9	- 129.4	3	20
Percent recovery is based on the s	pike result	. RPD	is based	on the spik	e and	spike du	plicat	e result	.		
	\mathbf{LC}	S I	LCSD			Spik	æ	LCS	LCSD	F	lec.
Surrogate	Resi	ult I	Result	Units	Dil.	Amou	int	Rec.	Rec.	L	imit
Trifluorotoluene (TFT)	1.1	8	1.18	mg/Kg	1	1.0)	118	118	65.9	9 - 132
4-Bromofluorobenzene (4-BFB)	1.2	2	1.22	mg/Kg	1	1.0)	122	122	55.2	- 128.9
Prep Batch: 48366		QC I	Preparat	ion: 2009-0)2-04)2-04				Anay Prepa	ared By	ME ME
2	L(CS	TT T .	יית	S	pike	Ma	atrix	D	I	Rec.
Param	Res	ult	Units	Dil.	An	nount	Ke	esult	Rec.	L	amit 100.1
GRO	9.4	40	mg/K	<u>g 1</u>		10.0	<\	.482	94	60.5	- 100.1
Percent recovery is based on the a	spike result	. RPD	is based	l on the spil	ce and	spike di	iplicat	te resul	t.		
	LCSD			Spike	М	latrix		I	Rec.		RPD
Param	Result	Uni	ts Di	l. Amoun	t R	esult	Rec.	L	imit	RPD	Limit
GRO	9.21	mg/J	Kg 1	10.0	<	0.482	92	60.5	- 100.1	2	20
Percent recovery is based on the	spike result	. RPD	is based	l on the spil	ce and	spike d	uplicat	te resul	t.		
	LC	S	LCSD			Spil	ke 🛛	LCS	LCSD]	Rec.
Surrogate	Res	ult I	Result	Units	Dil.	Amo	unt	Rec.	Rec.	L	imit
Trifluorotoluene (TFT)	0.9	94	1.00	mg/Kg	1	1.0	0	99	100	78.8	- 104.7
4-Bromofluorobenzene (4-BFB)	0.9	45	0.958	mg/Kg	1	1.0	0	94	96	66.1	- 107.3
Matrix Snike (MS-1) Snike	d Sample:	186228	e Analyz	ed: 2009-	02-02				Ana Pret	lyzed Bj bared By	y: LD
QC Batch: 56536 Prep Batch: 48301		QC :	Prepara	tion: 2009-	02-02				F		
QC Batch: 56536 Prep Batch: 48301	:	Dat∉ QC∶ MS	Prepara	tion: 2009-	02-02	Spike	1	Matrix	ŗ	·	Rec.
QC Batch: 56536 Prep Batch: 48301 Param	R	QC QC MS esult	Prepara Uni	tion: 2009- ts Dil.	02-02 I	Spike Amount	1 [Matrix Result	Rec.	·	Rec. Limit

¹³Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Report Date: February 6, 115-6403679	2009		V St	Vork Ord t. Mary/	ler: 901303 Tirano CN	31 IG		Page N Ed	umber: dy Cou	28 of 35 nty, NM
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			MSD			Spike	Matrix		Rec.		RPD
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	DRO	14	2000	mg/Kg	5	250	1120	352	18 - 179.5	2	20
MSMSDSpikeMSMSDRec.SurrogateResultResultUnitsDil.AmountRec.Rec.Limitm-Triacontane15 16622670mg/Kg510062267034.1 - 158Matrix Spike (MS-1)Spiked Sample:186245QC Batch:56560Date Analyzed:2009-02-03Analyzed By:LDPrep Batch:48328QC Preparation:2009-02-03Prepared By:LDParamResultUnitsDil.AmountResultRec.LimitDRO17544mg/Kg1250503.361618 - 179.5Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.RPD LimitDil.AmountRec.RPD LimitDRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.RPD LimitDil.AmountRec.LimitRPD LimitDRO16522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.SurrogateResultUnitsDil.AmountRec.Limitn-Triacontane120116mg/Kg110012011634.1 - 158Matrix Spike (MS-1)	Percent recovery is based	on the spik	e result. F	PD is ba	ased on t	he spike a	nd spike du	plicate r	esult.		
SurrogateResultResultUnitsDil.AmountRec.Rcc.Limitn-Triacontane15 16622670mg/Kg510062267034.1 - 158Matrix Spike (MS-1)Spiked Sample:186245QC Batch:56560Date Analyzed:2009-02-03Analyzed By:LDPrep Batch:48328QC Preparation:2009-02-03Prepared By:LDMSSpikeMatrixRec.LimitDRO17544mg/Kg1250503.361618 - 179.5Percent recovery is based on the spike result.RPDis based on the spike and spike duplicate result.MSDSpikeMatrixRec.RPDLimitDRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPDis based on the spike and spike duplicate result.RPDLimitDRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPDis based on the spike and spike duplicate result.MSDRec.Rec.SurrogateResultResultUnitsDilAmountRec.Limitn-Triacontane120116mg/Kg110012011634.1 - 158Matrix Spike (MS-1)SpikeMaterRec.Rec.LimitMSDRec. <td< td=""><td></td><td>MS</td><td>MSI</td><td>D</td><td></td><td></td><td>Spike</td><td>М</td><td>S MSD</td><td></td><td>Rec.</td></td<>		MS	MSI	D			Spike	М	S MSD		Rec.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Surrogate	Result	Resu	ılt	Units	Dil.	Amount	Re	c. Rec.		Limit
Matrix Spike (MS-1)Spiked Sample: 186245QC Batch:56560 Prep Batch:Date Analyzed:2009-02-03Analyzed By:LDPrep Batch:48328QC Preparation:2009-02-03Prepared By:LDParamMSSpikeMatrixRec. LimitLimitDRO17544mg/Kg1250503.361618 - 179.5Percent recovery is based on the spike result.RPDis based on the spike and spike duplicate result.ParamResultUnitsDil.AmountRec.RPDParamResultUnitsDil.AmountRec.LimitDRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPDLimitDil.AmountRec.LimitDil.DRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.SurrogateResultResultUnitsDil.AmountRec.Limitn-Triacontane120116mg/Kg110012011634.1 - 158Matrix Spike (MS-1)Spiked Sample:186238QC Preparation:2009-02-02Analyzed By:MEPrep Batch:48335QC Preparation:2009-02-02Prepared By:MEParamRe	n-Triacontane 15-16	622	670) n	ng/Kg	5	100	62	2 670	34	.1 - 158
QC Batch:56560Date Analyzed:2009-02-03Analyzed By:LDPrep Batch:48328QC Preparation:2009-02-03Prepared By:LDMSResultUnitsDil.AmountResultRec.LimitDRO17544mg/Kg1250503.361618 - 179.5Percent recovery is based on the spike result.RPDis based on the spike and spike duplicate result.RPDLimitDRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPDis based on the spike and spike duplicate result.RPDLimitDRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPDis based on the spike and spike duplicate result.SurrogateResultUnitsDil.AmountRec.Limitn-Triacontane120116mg/Kg110012011634.1 - 158Matrix Spike (MS-1)Spiked Sample:186238QC Preparation:2009-02-02Prepared By:MEPrep Batch:56568Date Analyzed:2009-02-02Prepared By:MEPrep Batch:56568Date Analyzed:2009-02-02Prepared By:MECRO10.4mg/Kg110.0<0.482	Matrix Spike (MS-1)	Spiked S	ample: 186	6245							
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	QC Batch: 56560 Prep Batch: 48328]	Date Ana QC Prep	alyzed: aration:	2009-02-(2009-0 2-()3)3		Anal Prep	lyzed By ared By	y: LD 7: LD
ParamResultUnitsDil.AmountResultRec.LimitDRO17544mg/Kg1250503.361618 - 179.5Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.MSDSpikeMatrixRec.RPDParamResultUnitsDil.AmountResultRec.LimitRPDLimitDRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.Rec.LimitRec.SurrogateMSMSDSpikeMSMSDRec.Natrix Spike (MS-1)Spiked Sample:186238209-02-02Analyzed By:MEQC Batch:56568Date Analyzed:2009-02-02Prepared By:MEPrep Batch:48335QC Preparation:2009-02-02Prepared By:MEMSMSNSDRec.LimitRec.LimitGRO10.4mg/Kg110.0<0.482			MS				Spike	Mat	rix		Rec.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Param		Resu	lt I	Units	Dil.	Amount	Res	ult Rec.		Limit
Or	DRO	17	544	n	1g/Kg	1	250	503	.36 16	18	3 - 179.5
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Percent recovery is based	on the spik	e result. H	RPD is b	ased on t	the spike a	nd spike du	plicate i	result.		
ParamResultUnitsDil.AmountResultRec.LimitRPDLimitDRO18522mg/Kg1250503.36718 - 179.5420Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.MSMSDSpikeMSMSDRec.SurrogateResultResultUnitsDil.AmountRec.Rec.n-Triacontane120116mg/Kg110012011634.1 - 158Matrix Spike (MS-1)Spiked Sample:1862382009-02-02Analyzed By:MEQC Batch:56568Date Analyzed:2009-02-02Prepared By:MEPrep Batch:48335QC Preparation:2009-02-02Prepared By:MEMSMSSpikeMatrixRec.Rec.MSNSSpikeMatrixRec.LimitGRO10.4mg/Kg110.0<0.482			MSD			Spike	Matrix		Rec.		RPD
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
MS MSD Spike and spike duplicate result. MS MSD Spike MS MSD Rec. Surrogate Result Result Units Dil. Amount Rec. Rec. Limit n-Triacontane 120 116 mg/Kg 1 100 120 116 34.1 - 158 Matrix Spike (MS-1) Spiked Sample: 186238 Date Analyzed: 2009-02-02 Analyzed By: ME QC Batch: 56568 Date Analyzed: 2009-02-02 Prepared By: ME Prep Batch: 48335 QC Preparation: 2009-02-02 Prepared By: ME MS Spike Matrix Rec. Limit Rec. Limit GRO 10.4 mg/Kg 1 10.0 <0.482	DRO	18	522	mg/Kg	1	250	503.36	7	18 - 179.5	4	20
MSMSDSpikeMSMSDRec.SurrogateResultResultUnitsDil.AmountRec.Rec.Limitn-Triacontane120116mg/Kg110012011634.1 - 158Matrix Spike (MS-1)Spiked Sample: 186238Date Analyzed:2009-02-02Analyzed By:MEPrep Batch:56568Date Analyzed:2009-02-02Prepared By:MEMSQC Preparation:2009-02-02Prepared By:MEMSResultUnitsDil.AmountResultRec.Image: Date Analyzed:10.4mg/Kg110.0<0.482	Percent recovery is based	on the spik	e result. I	RPD is b	ased on t	the spike a	nd spike du	plicate	result.		
SurrogateResultResultUnitsDil.AmountRec.Rec.Limitn-Triacontane120116mg/Kg110012011634.1 - 158Matrix Spike (MS-1)Spiked Sample: 186238QC Batch:56568Date Analyzed:2009-02-02Analyzed By: MEPrep Batch:48335QC Preparation:2009-02-02Prepared By: MEMSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.GRO10.4mg/Kg110.0<0.482		MS	MSD				Spike	MS	5 MSD		Rec.
n-Triacontane 120 116 mg/Kg 1 100 120 116 34.1 - 158 Matrix Spike (MS-1) Spiked Sample: 186238 Date Analyzed: 2009-02-02 Analyzed By: ME QC Batch: 56568 Date Analyzed: 2009-02-02 Prepared By: ME Prep Batch: 48335 QC Preparation: 2009-02-02 Prepared By: ME MS Spike Matrix Rec. Rec. MS Spike Matrix Rec. Limit GRO 10.4 mg/Kg 1 10.0 <0.482 104 12.8 - 175.2	Surrogate	Result	Result	U	nits	Dil.	Amount	Re	c. Rec.		Limit
Matrix Spike (MS-1)Spiked Sample: 186238QC Batch:56568Date Analyzed:2009-02-02Analyzed By:MEPrep Batch:48335QC Preparation:2009-02-02Prepared By:MEMSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.GRO10.4mg/Kg110.0<0.482	n-Triacontane	120	116	mg	;/Kg	1	100	12	D 116	34	1.1 - 158
QC Batch:56568Date Analyzed:2009-02-02Analyzed By:MEPrep Batch:48335QC Preparation:2009-02-02Prepared By:MEMSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.GRO10.4mg/Kg110.0<0.482	Matrix Spike (MS-1)	Spiked S	ample: 186	6238							
MSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.LimitGRO10.4mg/Kg110.0<0.482	QC Batch: 56568 Prep Batch: 48335			Date Ana QC Prep	alyzed: aration:	2009-02-0 2009-02-0)2)2		Anal Prep	yzed By ared By	y: ME 7: ME
MSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.LimitGRO10.4mg/Kg110.0<0.482	-									Ű	
ParamResultUnitsDil.AmountResultRec.LimitGRO10.4mg/Kg110.0<0.482			MS				Spike	Matr	ix		Rec.
GRO 10.4 mg/Kg 1 10.0 <0.482 104 12.8 - 175.2	Param		Result	t U	nits	Dil.	Amount	Resu	lt Rec.]	Limit
	GRO		10.4	mg	g/Kg	1	10.0	< 0.4	32 104	12.8	8 - 175.2

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

¹⁷Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁸Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁴Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁵High surrogate recovery due to peak interference.

¹⁶High surrogate recovery due to peak interference.

Report Date: February 6, 2009 115-6403679		S	Work Or t. Mary	rder: 9013 /Tirano (3031 CNG				Page N Ec	lumber: ldy Cou	29 of 35 nty, NM
Param	MSD Result	Units	Dil.	Spike Amount	M F	latrix Result	Rec.		Rec. Limit	RPD	RPD Limit
GRO 19	13.4	mg/Kg	1	10.0	<	0.482	134	12.	8 - 175.2	25	20
Percent recovery is based on the s	pike result.	RPD is b	ased on	the spike	and	spike du	plicat	e resu	ılt.		
	MS	MS	ח			Spil	70	MS	MSD		Rac
Surrogate	Resul	t Resi	ılt. 1	Units	Dil	Amo	int.	Rec	Rec	T	imit
Trifluorotoluene (TFT)	1.02	1.0	8 n	ng/Kg	1	1		102	2 108	60.8	- 132.1
4-Bromofluorobenzene (4-BFB)	0.886	0.85	55 n	ng/Kg	1	1		89	86	31.3	- 161.7
QC Batch: 56570 Prep Batch: 48337		Date An QC Prep	alyzed: aration:	2009-02 : 2009-02	2-03 2-03				Ana Prej	lyzed By pared By	v: AR v: AR
	M	3				Spike		Matri	ix		Rec.
Param	Rest	ılt	Units	Dil.		Amount		Resu	lt <u>R</u> e	ec	Limit
Chloride	528	ю п	ng/Kg	50		5000		129	10)3	85 - 115
Percent recovery is based on the s	pike result.	RPD is b	ased on	the spike	e and	spike du	plica	te res	ult.		
	MSD			Snike	2	Matrix			Rec		RPD
Param	Result	Units	Dil.	Amour	nt	Result	Re	c.	Limit	RPD	Limit
Chloride	5310	mg/Kg	50	5000		129		4	85 - 115	1	20
Percent recovery is based on the s	nike result.	BDD in F				aniko di			1.		
Matrix Spike (MS-1) Spike	l Sample: 18	36244	ased on	n the spik∉	e and	i spike ut	iplica	te res	uit.		
Matrix Spike (MS-1) Spiked	l Sample: 18	36244 Date An	alvzed:	the spike 2009-0	e and 2-03	i spike di	ıplica	te res	uit. An:	dyzed B	v· AR
Matrix Spike (MS-1) Spiked QC Batch: 56571 Prep Batch: 48338	l Sample: 18	36244 Date An QC Preg	alyzed: paration	2009-0 2009-0 2009-0	e and 2-03 2-03		iplica	te res	uit. Ana Pre	llyzed B pared B	y: AR y: AR
Matrix Spike (MS-1) Spiked QC Batch: 56571 Prep Batch: 48338	l Sample: 18	36244 Date An QC Prep S	alyzed: paration	2009-0 : 2009-0	e and 2-03 2-03	Spike	iplica	te res Matr	uit. Ana Pre	llyzed B pared B	y: AR y: AR Rec.
Matrix Spike (MS-1) Spiked QC Batch: 56571 Prep Batch: 48338 Param	l Sample: 18 M. Res	36244 Date An QC Prep S ult	alyzed: paration Units	2009-0: 2009-0: : 2009-0 Dil.	e and 2-03 2-03	Spike Amount	ıplica	te res Matr Resu	uit. Ana Pre ix lt R	llyzed B pared B	y: AR y: AR Rec. Limit
Matrix Spike (MS-1) Spiked QC Batch: 56571 Prep Batch: 48338 Param Chloride	I Sample: 18 M. Res 518	B6244 Date An QC Prep S ult	alyzed: paration <u>Units</u> ng/Kg	2009-0 2009-0 : 2009-0 	e and 2-03 2-03	Spike Amount 5000		Matr Resu	uit. Ana Pre ix 1t R 0 14	lyzed B pared B ec. 03	y: AR y: AR Rec. -Limit 85 - 115
Matrix Spike (MS-1) Spiked QC Batch: 56571 Prep Batch: 48338 Param Chloride Percent recovery is based on the s	I Sample: 18 M. Res 518 pike result.	36244 Date An QC Prep S ult 30 r RPD is t	alyzed: paration <u>Units</u> ng/Kg pased or	2009-0 2009-0 2009-0 Dil. 50 1 the spike	2-03 2-03 e and	Spike Amount 5000	iplica	Matr Resu <10 te res	uit. Ana Pre ix 0 1 ult.	lyzed B pared B ec. 03	y: AR y: AR Rec. Limit 85 - 115
Matrix Spike (MS-1) Spiked QC Batch: 56571 Prep Batch: 48338 Param Chloride Percent recovery is based on the s	M. Res 518 pike result.	B6244 Date An QC Prep S ult RPD is t	alyzed: paration <u>Units</u> ng/Kg pased or	2009-02 2009-02 2009-0 Dil. 50 1 the spike	2-03 2-03 2-03	Spike Amount 5000 I spike du	iplica 	Matr Resu <10 te res	Ana Pre ix It R 0 10 ult. Bec	lyzed B pared B ec. 03	y: AR y: AR Rec. Limit 85 - 115
Matrix Spike (MS-1) Spiked QC Batch: 56571 Prep Batch: 48338 Param Chloride Percent recovery is based on the s	M Res 518 pike result. MSD Result	36244 Date An QC Prep S ult 30 r RPD is t Units	alyzed: paration <u>Units</u> ng/Kg pased on Dil	2009-0 2009-0 2009-0 2009-0 Dil. 50 the spike Amou	e and 2-03 2-03 e and e and e nt	Spike Amount 5000 I spike du Matrix Result	iplica 	Matr Resu <10 te res	uit. Ana Pre ix lt R 0 1 ult. Limit	lyzed B pared B ec. 03 RPD	y: AR y: AR Rec. Limit 85 - 115 RPD Limit

¹⁹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: February 6, 2009 115-6403679		· .	Work Or St. Mary	rder: 9013 /Tirano C	031 ING	·	I 	Page Nur Edd	nber: 3 y Coun	30 of 35 ity, NM
Matrix Spike (MS-1) Spiked	Sample: 18	86245								
QC Batch: 56572 Prep Batch: 48339		Date Ar QC Pre	nalyzed: paration:	2009-02 2009-02	-03 -03			Analy: Prepa	zed By: red By:	: AR : AR
	М	s			Spike	Μ	latrix			Rec.
Param	Res	ult	Units	Dil.	Amount	R	esult	Rec.		Limit
Chloride	510	50	mg/Kg	50	5000		<100	102		5 - 115
Percent recovery is based on the sp	pike result.	RPD is	based on	the spike	and spike d	plicate	result.			
	MSD			Spike	Matrix		Re	ec.		RPD
Param	Result	Units	Dil.	Amoun	t Result	Rec.	Lit	nit l	RPD	Limit
Chloride	5210	mg/Ka	g 50	5000	<100	103	85 -	115	1	20
QC Batch: 56604 Prep Batch: 48366		Date Ar QC Pre	nalyzed: paration	2009-02 : 2009-02	-04 -04			Analy: Prepa	zed By red By:	: ME : ME
	MC				~					
_	M5				Spike	Mati	rix	_	F	Rec.
Param '	Resu	lt	Jnits	Dil.	Spike Amount	Mati Resi	rix 1lt	Rec.		Rec.
Param ' Benzene Taluana	Resu 1.13	lt U m	Jnits g/Kg	Dil. 1	Spike Amount 1.00	Mati Resi <0.00	rix 1lt 100	Rec.	I L 58.6	Rec. Jimit - 165.2
Param ' Benzene Toluene Ethylbenzene	Resu 1.13 1.17	lt U m 7 m	Jnits g/Kg g/Kg g/Kg	Dil. 1 1	Spike <u>Amount</u> 1.00 1.00	Matu Resu <0.00 <0.00	rix 1lt 100 100	Rec. 113 117 118	I 58.6 64.2 61.6	Rec. Jimit - 165.2 - 153.8 - 159.4
Param ' Benzene Toluene Ethylbenzene Xylene	Resu 1.13 1.17 1.18 3.63	lt U m m m m m	Jnits g/Kg g/Kg g/Kg g/Kg	Dil. 1 1 1	Spike <u>Amount</u> 1.00 1.00 1.00 3.00	Mata Resu <0.00 <0.00 <0.00 <0.00	rix 1lt 100 100 110 360	Rec. 113 117 118 121	I L 58.6 64.2 61.6 64.4	Rec. Jimit - 165.2 - 153.8 - 159.4 - 155.3
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the sp	Resu 1.13 1.17 1.18 3.63 pike result.	lt U m m m m m RPD is	Jnits g/Kg g/Kg g/Kg g/Kg based on	Dil. 1 1 1 1 1	Spike Amount 1.00 1.00 3.00 and spike d	Mata Resu <0.00 <0.00 <0.00 <0.00 uplicate	rix 1lt 100 100 110 360 2 result.	Rec. 113 117 118 121	I 58.6 64.2 61.6 64.4	Rec. imit - 165.2 - 153.8 - 159.4 - 155.3
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s	MS Resu 1.13 1.17 1.18 3.63 pike result. MSD	lt U m m m m m RPD is	Jnits g/Kg g/Kg g/Kg g/Kg based on	Dil. 1 1 1 the spike Spike	Spike Amount 1.00 1.00 3.00 and spike d Matrix	Matu Resu <0.00 <0.00 <0.00 <0.00 uplicate	rix 11t 100 100 110 360 2 result. Re	Rec. 113 117 118 121 ec.	I 58.6 64.2 61.6 64.4	Rec. imit - 165.2 - 153.8 - 159.4 - 155.3 RPD
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Param	Result	lt Units	Jnits g/Kg g/Kg g/Kg based on Dil.	Dil. 1 1 1 the spike Spike Amount	Spike Amount 1.00 1.00 3.00 and spike d Matrix Result	Math Resu <0.00 <0.00 <0.00 <0.00 uplicate Rec.	rix 11t 1100 1100 1110 1360 2 result. Re Lir	Rec. 113 117 118 121 ec. nit	I 58.6 64.2 61.6 64.4 RPD	Rec. imit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Param Benzene	Result 1.09	lt Units	Jnits g/Kg g/Kg g/Kg based on Dil.	Dil. 1 1 1 the spike Spike Amount 1.00	Spike Amount 1.00 1.00 3.00 and spike d Matrix Result <0.00100	Matu Resu <0.00 <0.00 <0.00 <0.00 uplicate Rec. 109	rix ilt 1100 1100 1110 360 2 result. Re Lir 58.6 -	Rec. 113 117 118 121 ec. nit 165.2	I 58.6 64.2 61.6 64.4 RPD 4	Rec. <u>imit</u> - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the sp Param Benzene Toluene	MS <u>Resu</u> 1.13 1.17 1.18 3.63 pike result. MSD <u>Result</u> 1.09 1.13 1.19	lt U m m m RPD is Units mg/Kg	Jnits g/Kg g/Kg g/Kg based on Dil. 1 1	Dil. 1 1 1 1 the spike Spike Amount 1.00 1.00	Spike <u>Amount</u> 1.00 1.00 3.00 and spike d <u>Matrix</u> <u>Result</u> <0.00100 <0.00100	Matu Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113	rix 11t 1100 1100 1100 1100 1100 1100 1000 1100 1000 1100 10	Rec. 113 117 118 121 ec. nit 165.2 153.8	H L 58.6 64.2 61.6 64.4 RPD 4 4	Rec. imit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20 20 20
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the sp Param Benzene Toluene Ethylbenzene Xylene	MS Resu 1.13 1.17 1.18 3.63 pike result. MSD Result 1.09 1.13 1.18 3.63	lt U m m m RPD is Units mg/Kg mg/Kg mg/Kg	Jnits g/Kg g/Kg based on Dil. 1 1 1	Dil. 1 1 1 1 the spike Spike Amount 1.00 1.00 3.00	Spike Amount 1.00 1.00 3.00 and spike d Matrix Result <0.00100 <0.00110 <0.00360	Mata Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113 118 121	rix 11t 1100 1100 1100 1100 1100 1100 10	Rec. 113 117 118 121 ec. nit 165.2 153.8 159.4 155.3	I 58.6 64.2 61.6 64.4 RPD 4 4 0 0	Rec. imit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20 20 20 20 20
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the sp Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s	Result 1.13 1.17 1.18 3.63 pike result. MSD Result 1.09 1.13 1.18 3.63 pike result.	lt U m m m RPD is Units mg/Kg mg/Kg mg/Kg mg/Kg	Jnits g/Kg g/Kg based on Dil. 1 1 1 1 1 1 1 1	Dil. 1 1 1 1 the spike Spike Amount 1.00 1.00 1.00 3.00 1 the spike	Spike Amount 1.00 1.00 3.00 and spike d Matrix Result <0.00100	Matu Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113 118 121 uplicate	rix 11t 1100 1000 10	Rec. 113 117 118 121 ec. 165.2 153.8 159.4 155.3	I 58.6 64.2 61.6 64.4 RPD 4 4 0 0	Rec. imit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20 20 20 20
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s	Resul 1.13 1.17 1.18 3.63 pike result. MSD Result 1.09 1.13 1.18 3.63 pike result. MSD MSD MSD MSD MSD MSD MSD MSD	lt U m m m RPD is mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg S M	Jnits g/Kg g/Kg based on Dil. 1 1 1 1 1 1 1 1 SD	Dil. 1 1 1 1 the spike Spike Amount 1.00 1.00 1.00 3.00 a the spike	Spike <u>Amount</u> 1.00 1.00 3.00 and spike d Matrix <u>Result</u> <0.00100 <0.00110 <0.00360 and spike d S	Matu Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113 118 121 uplicate	rix <u>alt</u> <u>1100</u> 1100 1100 1100 1100 1100 1100 1000 1100 1000 1100 100	Rec. 113 117 118 121 ec. 165.2 153.8 159.4 155.3 MSD	I 58.6 64.2 61.6 64.4 RPD 4 4 0 0	Rec. <i>i</i> mit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20 20 20 20 Rec.
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the sp Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Surrogate	Result 1.13 1.17 1.18 3.63 pike result. MSD Result 1.09 1.13 1.18 3.63 pike result. MS MS Result MS MS MS MS MS MS MS MS MS MS	lt U m m m RPD is mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	Jnits g/Kg g/Kg based on Dil. 1 1 1 1 1 sbased or ISD esult	Dil. 1 1 1 1 the spike Spike Amount 1.00 1.00 3.00 1 the spike Units	Spike Amount 1.00 1.00 1.00 and spike d Matrix Result <0.00100	Matu Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113 118 121 uplicate pike nount	rix 11t 1100 1000 10	Rec. 113 117 118 121 ec. nit 165.2 153.8 159.4 155.3 MSD Rec.	I 58.6 64.2 61.6 64.4 RPD 4 4 0 0	Rec. <i>i</i> mit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20 20 20 20 20 20 20 20 20 20
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Surrogate Trifluorotoluene (TFT)	MS Resu 1.13 1.17 1.18 3.63 pike result. MSD Result 1.09 1.13 1.18 3.63 pike result. MS Result	lt U m m m RPD is mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	Jnits g/Kg g/Kg based on Dil. 1 1 1 based or ISD esult 1.18	Dil. 1 1 1 1 the spike Spike Amount 1.00 1.00 1.00 3.00 the spike Units mg/Kg	Spike Amount 1.00 1.00 1.00 and spike d Matrix Result <0.00100	Matu Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113 118 121 uplicate pike nount 1	rix 11t 1100 1100 1100 1100 1100 1100 1000 110 1000 110 1000 110 1000 110 100 1	Rec. 113 117 118 121 ec. nit 165.2 153.8 159.4 155.3 MSD Rec. 118	I 58.6 64.2 61.6 64.4 RPD 4 4 0 0 76	Rec. <i>i</i> mit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20 20 20 20 20 20 - Rec. Limit - 127.9
Param ' Benzene Toluene Ethylbenzene Xylene 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)	MS Result 1.13 1.17 1.18 3.63 pike result 1.09 1.13 1.18 3.63 pike result 1.09 1.13 1.18 3.63 pike result 1.18 3.63 pike result 1.18 3.63 pike result	It U It It It It It It It It	Jnits g/Kg g/Kg g/Kg based on Dil. 1 1 1 1 based or 4SD esult 1.18 1.21	Dil. 1 1 1 1 the spike Spike Amount 1.00 1.00 1.00 3.00 1 the spike Units mg/Kg mg/Kg	Spike Amount 1.00 1.00 1.00 3.00 and spike d Matrix Result <0.00100	Matu Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113 118 121 uplicate pike nount 1 1	rix alt 1100 1100 1100 1100 1100 1360 2 result. Re Lir 58.6 - 64.2 - 61.6 - 64.2 - 64.4 - 2 result. MS Rec. 117 121	Rec. 113 117 118 121 ec. nit 165.2 153.8 159.4 155.3 MSD Rec. 118 121	I 58.6 64.2 61.6 64.4 RPD 4 4 0 0 76 72	Rec. <i>i</i> mit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20 20 20 20 20 20 20 20 20 20
Param ' Benzene Toluene Ethylbenzene Xylene 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) Matrix Spike (MS-1) Spiked	MS Result 1.13 1.17 1.18 3.63 pike result 1.09 1.13 1.18 3.63 pike result MSD Result 1.09 1.13 1.18 3.63 pike result MSD Result 1.11 1.2 d Sample: 1	lt U m m m RPD is mg/Kg	Jnits g/Kg g/Kg g/Kg based on Dil. 1 1 1 based or ISD esult 18 L.21	Dil. 1 1 1 1 1 1 1 1 1 1 1 1 1	Spike Amount 1.00 1.00 1.00 3.00 and spike d Matrix Result <0.00100	Matu Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113 118 121 uplicate pike nount 1 1	rix <u>alt</u> <u>1100</u> 1100 1100 1100 1100 1100 100	Rec. 113 117 118 121 ec. nit 165.2 153.8 159.4 155.3 MSD Rec. 118 121	I 58.6 64.2 61.6 64.4 RPD 4 4 0 0 76 72	Rec. imit - 165.2 - 153.8 - 159.4 - 155.3 RPD Limit 20 20 20 20 20 20 20 20 20 20
Param ' Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the sp Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the s Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spikeo OC Batch: 56605	MS Result 1.13 1.17 1.18 3.63 pike result. MSD Result 1.09 1.13 1.18 3.63 pike result. MSD Result 1.09 1.13 1.18 3.63 pike result. MSD Result 1.09 1.13 1.18 3.63 pike result. MSD Result 1.12 d Sample: 1	lt U m m m RPD is mg/Kg mg/Lg	Jnits g/Kg g/Kg g/Kg based on Dil. 1 1 1 1 sased or dSD esult 1.18 1.21	Dil. 1 1 1 1 the spike Spike Amount 1.00 1.00 1.00 3.00 h the spike Units mg/Kg mg/Kg	Spike <u>Amount</u> 1.00 1.00 3.00 and spike d Matrix <u>Result</u> <0.00100 <0.00100 <0.00100 <0.00360 and spike d <u>S</u> Dil. <u>Ar</u> 1 1 2-04	Matu Resu <0.00 <0.00 <0.00 uplicate Rec. 109 113 118 121 uplicate pike nount 1 1	rix alt 1100 1100 1100 1100 1100 1360 2 result. Re Lir 58.6 - 64.2 - 61.6 - 64.2 - 64.4 - 2 result. MS Rec. 117 121	Rec. 113 117 118 121 ec. nit 165.2 153.8 159.4 155.3 MSD Rec. 118 121 Analy	I 58.6 64.2 61.6 64.4 RPD 4 4 0 0 76 72 76 72	Rec. imit - 165.3 - 153.8 - 153.8 - 155.2 RPD Limit 20 20 20 20 20 20 20 20 20 20

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Report Da 115-640367	te: February 6, 2 79	009		Work (St. Mar	Order: 9013 y/Tirano C	031 DNG			Page Nı Ede	umber: 3 dy Cour	31 of 35 nty, NM
Param		F	MS Result	Units	Dil.	Spike Amoun	Ma t Res	trix sult	Rec.		lec. imit
GRO			718	mg/Kg	1	100	56	53	155	12.8	- 175.2
Percent rec	overy is based on	the spike res	ult. RPD 1	s based o	n the spike	and spike	e duplicat	e result.			
		MSE)		Spike	Matrix		Re	c.		RPD
Param	_=	Resul	t Units	Dil.	Amount	Result	Rec.	Lin	nit	<u>RPD</u>	Limit
GRO		687	mg/K	g I	100	563	124	12.8 -	175.2	4	20
Percent rec	covery is based on	ı the spike res	ult. RPD i	s based o	n the spike	and spike	e duplicat	e result.			
			MS	MSD			Spike	MS	MSD	3	Rec.
Surrogate			\mathbf{Result}	Result	Units	Dil.	Amount	Rec.	Rec.	L	imit
Trifluoroto	luene (TFT)		10.2	10.0	mg/Kg	1	10	102	100	60.8	- 132.1
4-Bromoflu	orobenzene (4-Bl	FB) ^{20 21}	17.9	18.0	mg/Kg	1	10	179	180	31.3	- 161.7
Standard QC Batch:	(ICV-1) 56536		Date	Analyzed	: 2009-02-	.02			Anal	lyzed By	y: LĐ
			ICVs	I	CVs	ICV	5	Perce	ent		
			True	F	ound	Perce	nt	Recov	ery		Date
Param	Flag	Units	Conc.	(Conc.	Recov	ery	Limi	ts	Aı	nalyzed
DRO		mg/Kg	250		284	114		85 - 1	115	200	9-02-02
Standard	(CCV-1)										
QC Batch:	56536		Date	Analyzed	: 2009-02-	-02			Ana	lyzed B	y: LD
			CCVs True	(F	CCVs Found	CCV Perce	's nt	Perco Recov	ent very		Date
Param	Flag	Units	Conc.	(Conc.	Recov	ery	Lim	its	A1	nalyzed
DRO		mg/Kg	250		259	104		85 -	115	200	09-02-02
Standard	(CCV-2)										
QC Batch:	56536		Date	Analyzed	: 2009-02-	-02			Ana	lyzed B	y: LD
			CCVs	(CCVs	CCV	's	Perc	ent		
			True	F	Found	Perce	ent	Reco	very		Date
-	Flag	Linits	Conc	(Conc.	Recov	erv	Lim	its	A	nalvzed
Param	I nag	011100									

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 $^{20}{\rm High}$ surrogate recovery due to peak interference. $^{21}{\rm High}$ surrogate recovery due to peak interference.

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Report Dat 115-640367	e: February (9	6, 2009	S	Work Order: 90 t. Mary/Tirano	13031 CNG	Page Nu Ed	ımber: 32 of 35 dy County, NM
Standard ((ICV-1)				*		
QC Batch:	56560		Date Ana	alyzed: 2009-0	2-03	Anal	yzed By: LD
<u>Param</u> DRO	Flag	Units mg/Kg	ICVs True Conc. 250	ICVs Found Conc. 233	ICVs Percent <u>Recovery</u> 93	Percent Recovery Limits 85 - 115	Date Analyzed 2009-02-03
~						<u> </u>	
QC Batch:	(CCV-1) 56560		Date An	alyzed: 2009-0	2-03	Anal	yzed By: LD
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	270	108	85 - 115	2009-02-03
Standard QC Batch:	(ICV-1) 56568		Date Ana	alyzed: 2009-0	2-02	Anal	yzed By: ME
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.849	85	85 - 115	2009-02-02
Standard	(CCV-1)						
QC Batch:	56568		Date Ana	alyzed: 2009-0	2-02	Anal	yzed By: ME
Daram	Flag	Units	CCVs True Conc	CCVs Found Conc	CCVs Percent	Percent Recovery	Date Analyzed
GRO		mg/Kg	1.00	1.05	105	85 - 115	2009-02-02
	 (CCV-2)						
QC Batch:	56568		Date An	alyzed: 2009-0	2-02	Anal	yzed By: ME
D	ורז	T T	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param GRO	Flag	Units mg/Kg	<u> </u>	Conc.	Recovery	Limits 85 - 115	Analyzed
<u></u>		6/116	1.00	1.10		00 - 110	4000-02-02

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Report Date 115-6403679	: February 6,	2009	. W St.	ork Order: 901 Mary/Tirano	3031 CNG	Page Nu Ede	umber: 33 of 35 dy County, NM
Standard (I	CV-1)						
QC Batch:	56570		Date Anal	yzed: 2009-02	-03	Analy	yzed By: AR
-		.	ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
<u>C</u> hloride	Flag	mg/Kg			99	85 - 115	2009-02-03
Standard ()	CCV-1)						
QC Batch:	56570		Date Anal	yzed: 2009-02	2-03	Anal	yzed By: AR
			CCVs	CCVs	CCVs	Percent	
_			True	Found	Percent	Recovery	Date
Param	Flag	Units	<u>Conc.</u>	Conc.	Recovery	Limits	Analyzed
QC Batch:	56571		Date Anal	lyzed: 2009-03	2-03	Anal	yzed By: AR
			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	<u>Conc.</u>	Conc	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-02-03
OC Batch:	56571		Date Ana	lyzed: 2009-0	2-03	Anal	vzed By: AR
~			CCVs	CCVs	CCVs	Percent	• •
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
		mg/Kg	100	99.3		85 - 115	2009-02-03
Standard (ICV-1)		Data Ana	kraadi 2000 0	9.09	4 noi	wood Buy AD
ч∩ патен:	00072		Date Alla	1y2eu. 2009-0	4-VJ	Alla	iyzeu Dy. AR
			ICVs	ICVs	ICVs	Percent	
Param	Flag	Units	Conc	round	Percent Recovery	Limits	Date Analyzed
* for (9111		/1/	100		00	05 115	

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Report Date: 115-6403679	February 6, 2	2009	Wo St.	ork Order: 9013 Mary/Tirano (8031 CNG	Page Nu Ede	umber: 34 of 35 dy County, NM
Standard (C	CCV-1)						
QC Batch:	56572		Date Analy	zed: 2009-02-	03	Anal	yzed By: AR
Param	Flag	Units	CCVs True Couc	CCVs Found Conc	CCVs Percent Becovery	Percent Recovery	Date Analyzed
Chloride	1 100	mg/Kg	100	101	101	85 - 115	2009-02-03
Standard (I	CV-1)						
QC Batch:	56604		Date Analy	zed: 2009-02-	04	Analy	zed By: ME
Deven	Elar	IIn:4a	ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param Benzene	riag	Units	0.100	O 106	106		Analyzed 2009-02-04
Toluene		mg/Kg	0.100	0.110	110	85 - 115	2009-02-04
Ethylbenzene	2	· mg/Kg	0.100	0.111	· 111	85 - 115	2009-02-04
Xylene		mg/Kg	0.300	0.344	115	85 - 115	2009-02-04
Standard (C	CCV-1)						
QC Batch:	56604		Date Analy	yzed: 2009-02-	04	Anal	yzed By: ME
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.105	105	85 - 115	2009-02-04
Toluene		mg/Kg	0.100	0.108	108	85 - 115 85 - 115	2009-02-04
Xylene	5	mg/Kg	0.100	0.343	114	85 - 115 85 - 115	2009-02-04 2009-02-04
Standard (I	(CV-1)	0/ '0					
QC Batch:	56605		Date Analy	yzed: 2009-02-	-04	Anal	yzed By: ME
			ICVs	ICVe	ICVe	Parcont	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	· Conc.	Recoverv	Limits	Analyzed
GRO	.0	mg/Kg	1.00	1.08	108	85 - 115	2009-02-04
Standard (CCV-1)						
Sumaare (
QC Batch:	56605	•	Date Anal	yzed: 2009-02	-04	Anal	yzed By: ME

Report Da 115-64036	te: February 79	6, 2009	S	Work Order: 90 t. Mary/Tirano	Page Number: 35 of 35 Eddy County, NM				
			CCVs	CCVs	CCVs	Percent			
			True	Found	Percent	Recovery	Date		
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
					100		0000 00 01		

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PAGE: 1 OF: Z ANALYSIS REQUEST (Circle or Specify Method No.)	۲۵۲ ۲۵۲ ۲۵۲ ۲۵۲ ۲۵۲ ۲۵۲ ۲۵۲ ۲۵۶ ۲۵۶ ۲۵۶	 3 TX100 5 Ba Ci 5 Ba Ci 5 Cov624 5 Cov624 	5 2 2 2 2 2 2 2 2 2 2 2 2 2	BTEX 6021E PEH 8015 PAH 8770 RCRA Meta TCLP Meta RCI GG.MS Sem GG.MS Sem PLM PARA RED PLM PARA RED RED <							X				SAMPLED BY (Print & Initialy / T Date: 1/ 1/1	Sumpted Shipped Bus	TETRA TECH CONTACT PERSON: Results by:	The Tavaren RUSH Changes	er als 100 mig/kg	r reteins Pink copy - Accounting receives Gold copy.
Analysis Request of Chain of Custody Record	TETRATECH 1910 N. Big Spring St. Midland, Texas 79705 (432) 682-4559 • Fax (432) 682-3946	NT NAME: Y. Marys SITE MANAGER: T. Marys B. METHOD	JECT NO.: PROJECT NAME: 5-6410 3676 57 Marys / Thano 6NG7 38	3LD. DATE TIME TIME COMP. COMP	225 4/29 S X AH-1 O-1, (1'3es) 1 X	ZZ / / / / / / H-r 1, 7, 1, 2ES // / / /	227 \) AH-1 7'-2,5' (1' BEB> /]	1 1 1 1 1 1 1 1 1 1 2-HU 1 1 1 1 1 2 222 1 1 1 1 1 1 1 1 1 1 1	ZZ / / / Z-HØ // / ZZ	230 V AH-2 z'-2.5' V V	231) AH-3 0-1'	237. / / И Ан-З 1'- 15'	233 / / / Ан-З '2'-2'5 // // // //	234 & A & AH-FI, 0-1' & A	QUISHED BY: (Signature) Date: 1/30/01 RECEIVED BY: (Signature) Date: Date: Tame: Tam	QUISHED BY: (Signature) Date:	OUISHED BY: (Signature) Date: RECEIVED BY: (Signature) Date: Time: Time:	VING LABORATORY: TACY RECEIVED BY: (Suprature) C M	LE CONDITION WHEN RECEIPED PHONE REMARKS RUN AND AND THE TONS TO A 18 TO A 18 TO A 100	Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Maruger

PAGE: Z OF: 3	ANALYSIS REQUEST (Circle or Specify Method No.)	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲	7 TX1005 5 Ba Cd 6 5 Ba Cd 6 5 560/624 570/625	1 A BA s A BA s A BA s Se Se Se Se Se Se Se Se Se Se Se Se Se	BTEX 8021E BTEX 8021E PMH 8015 PMH 8270 PCLP Metal TCLP Voltation FCLP Voltation FCLP Metal TCLP Voltation FCLP Voltat											SAMPLED BY: (Phint & Initial) / J Date: 1/27/24	SAMPLE SHIPPED BY (Circle) AIRBILL #	TETTATECH CONTACT PERSON: Results by:	Autor in the Autor	The lavart & Autorizadi	アイ カッチティット Frink copy - Accounting raceives Gold copy.
Analysis Request of Chain of Custody Record		1910 N. Big Spring St. Midland, Texas 79705 (432) 582-4559 • Fax (432) 682-3946	CLIENT NAME: St Mary S SITE MANAGER: I K. Tavarez B METHOD	PROJECT NO.: PROJECT NAME: 115-640367 C St Marys / Tingno CNG 8 2	LAB (.D. DATE TIME 産 の の の の の の の の の の の の の の の の の の	1842255 1/24 5 X AH-4 1'-1.5' 1 X	23% ((AH-4 2'-2'5' (/	237) / / AH-5 O-1' (15' BEB)/	Z38 / AH- 5 1'-1.5' (1.5' BEB> /	231 () (AH - 5 Z'Z'S' (15' BE B) ()	24") (/ / BEB) (IS' BEB) ()	Z41 / CESE , 1, CI BEES / N / N / N / N / N / N / N / N / N /	ראב / / / או-נ ו-ויצ' נו' וצבוא / / /	243 / U AH-1 O-1, HERE / EN2	244 & A AH-7, 1'-1.5' A A A	RELINQUISHED BY: (Signature) JAPP Date: 1.20101 RECEIVED BY: (Signature) Date: Date: Time: 16.15	RELINQUISHED BY: (Signature) Date: Date: RECEIVED BY: (Signature) Date: Time: Time:	RELINQUISHED BY; (Signature) Date: D		CITY PATICAL STATE 1 Y ZP: DATE 1.39.00 INVECTOR TO THE 10.15	SAMPLE CONDITION WHEN PICEVEDY S. A. C.

PAGE 3 OF 3	ANALYSIS REQUEST (Circle or Specify Method No.)		102 102 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 102	550/625 560/624 560/624 560/624 560/624	QOM A 9A 81 a 82 41 86 90 8240/85 8240/85 803/ 805 805/ 805 805/ 805 805/ 805/ 805/ 8	ПРН 8015 РАН 8270 РАН 8270 РСКР Мета ТССР Мета ТССР №13 РСКР 86mi РСКР 860 РСКР 8600 РСК 9600 РСК 9600 РСК 9600 РСК 9600 РСК 9600 РСК 9600						SAMPLET RY, IPANA, Alilian	ET/17 Time:	EAMPLE SHIPPED BY: (Circle) AIRBILL #:	TENT DELIVERED OFS TETHATECH CONTACT PERSON: Results by	- I ha Tavard HUSH Charges	ר אס אסיל לעייל ains Pink copy - Accounting receives Gold copy.
Analysis Beduest of Chain of Custody Becord		Midland, Texas 79705	(432) 682-4559 • Fax (432) 682-3946	CLIENT NAME: St Marys SITE MANAGER: TWARE?	PROJECT NO.: PROJECT NAME: St Marys / Thans CNG BE	LABILD. DATE TIME EX OR AB SAMPLE IDENTIFICATION EFFICIENT PLANTERCATION EFFICIENT PLANTERCATION EFFICIENCE PLANTERCATION	196245 1241/01 2 X AH-7 Z'-Z. 5' I X X							RELINQUISHED BY: (Signature) Date: D	RELINOUISHED BY: (Signature) Date: D	RECEIVING LABORATOPRIC 1/4.17 RECEIVED BY: (Signature) C C C C C C C C C C C C C C C C C C C	CONTACT: DATE: CONTACT: TIME LATER AND THONE: CONTACT: TO THE LATER AND THE CONTION WHEN RECEIPED: REMARKS: THE AND

Report Date: February 12, 2009 115-6403679

Summary Report

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

Report Date: February 12, 2009

Work Order: 9020922

Project Location:Eddy County, NMProject Name:St. Mary/Tirano CNG #1 Tank BatteryProject Number:115-6403679

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
186982	AH-1 3'-3.5' BEB (1.0')	soil	2009-02-09	00:00	2009-02-09
186983	AH-1 5'-5.5' BEB (1.0')	soil	2009-02-09	00:00	2009-02-09
186984	AH-7 3'-3.5'	soil	2009-02-09	00:00	2009-02-09

	TPH DRO	TPH GRO
	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)
186984 - AH-7 3'-3.5'	348	36.7

Sample: 186982 - AH-1 3'-3.5' BEB (1.0')

Param	Flag	Result	Units	RL
Chloride		443	mg/Kg	4.00

Sample: 186983 - AH-1 5'-5.5' BEB (1.0')

Param	Flag	Result	Units	RL
Chloride		483	mg/Kg	4.00

Lubbock, Texas 79424 800 • 378 • 1296 6701 Aberdeen Avenue, Suite 9 806 • 794 • 1296 FAX 806+794+1298 888 • 588 • 3443 200 East Sunset Road, Suite E El Paso, Texas 79922 915 • 585 • 3443 FAX 915+585+4944 5002 Basin Street, Suite A1 Midland, Texas 79703 432+689+6301 FAX 432+689+6313 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817 • 201 • 5260 E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB:1752439743100-86536NCTRCAWFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

Analytical and Quality Control Report

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

Report Date: February 12, 2009

Work Order: 9020922

Project Location:Eddy County, NMProject Name:St. Mary/Tirano CNG #1 Tank BatteryProject Number:115-6403679

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
186982	AH-1 3'-3.5' BEB (1.0')	soil	2009-02-09	00:00	2009-02-09
186983	AH-1 5'-5.5' BEB (1.0')	soil	2009-02-09	00:00	2009-02-09
186984	AH-7 3'-3.5'	soil	2009-02-09	00:00	2009-02-09

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

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

Michael apr

Dr. Blair Leftwich, Director

Case Narrative

Samples for project St. Mary/Tirano CNG #1 Tank Battery were received by TraceAnalysis, Inc. on 2009-02-09 and assigned to work order 9020922. Samples for work order 9020922 were received intact at a temperature of 11.3 deg. C.

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

		Prep	Prep	\mathbf{QC}	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (Titration)	SM 4500-Cl B	48493	2009-02-10 at $10:49$	56758	2009-02-10 at 15:49
TPH DRO	Mod. 8015B	48474	2009-02-10 at 10:00	56739	2009-02-10 at 11:00
TPH GRO	S 8015B	48501	2009-02-10 at $10:00$	56768	2009-02-10 at $10:43$

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 9020922 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.

Work Order: 9020922 Report Date: February 12, 2009 Page Number: 4 of 9 115-6403679 St. Mary/Tirano CNG #1 Tank Battery Eddy County, NM **Analytical Report** Sample: 186982 - AH-1 3'-3.5' BEB (1.0') Laboratory: Midland Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: QC Batch: 56758 Date Analyzed: 2009-02-10 Analyzed By: Prep Batch: 48493 Sample Preparation: 2009-02-10 Prepared By: RL Parameter Flag Result Units Dilution Chloride 443 mg/Kg 50 Sample: 186983 - AH-1 5'-5.5' BEB (1.0')

N/A

AR

AR

RL

4.00

Laboratory: Midland Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A \mathbf{AR} QC Batch: 56758 Date Analyzed: 2009-02-10 Analyzed By: Prep Batch: 48493 Sample Preparation: 2009-02-10 Prepared By: AR \mathbf{RL} Parameter Result Units Flag Dilution \mathbf{RL} 483 Chloride mg/Kg 50 4.00

Sample: 186984 - AH-7 3'-3.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 56739 48474		Analytical Me Date Analyze Sample Prepa	ethod: Mod. 8 d: 2009-02 ration: 2009-02	3015B 2-10 2-10	Prep M Analyz Prepar	fethod: N/A ed By: LD ed By: LD
Parameter	Fla	g	${f RL}$ Result	Uni	ts	Dilution	RL
DRO			348	mg/F	Кg	1	50.0
Surrogate	Flag	\mathbf{Result}	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	144	mg/Kg	1	100	144	10 - 250.4

		Eddy (County, NM
Analytical Method: Date Analyzed: Sample Preparation	S 8015B 2009-02-10 n: 2009-02-10	Prep Metho Analyzed B Prepared B	od: S 5035 by: AG y: AG
RL <u>Result</u> 36.7	Units	Dilution1	RL 1.00
Result Units 0.920 mg/Kg 1.25 mg/Kg	Spil Spil Dilution Amo i 1 1.0 i 1 1.0 i 1 1.0	xe Percent unt Recovery 0 92 0 125	Recovery Limits 68.5 - 119.4 52 - 117
39 Date Analyzed: QC Preparation: MI Resu	2009-02-10 2009-02-10)L ılt	Analyze Prepare Units	d By: LD d By: LD RL
<12	2.0 Spike	mg/Kg Percent	50 Recovery
Units Di	1 Amount	Recovery 86	$\frac{\text{Limits}}{30.9 - 146.4}$
mg/ Kg			
58 Date Analyzed:	2009-02-10	Analyze	d By: AR
	Date Analyzed: Sample Preparation RL Result 36.7 Result Units 0.920 mg/Kg 1.25 mg/Kg 39 Date Analyzed: QC Preparation: MI Resu <12	Date Analyzed: 2009-02-10 RL 2009-02-10 RL Units 36.7 mg/Kg Result Units Spil Result Units Dilution 0.920 mg/Kg 1 1.0 1.25 mg/Kg 1 1.0 39 Date Analyzed: 2009-02-10 QC Preparation: 2009-02-10 MDL Result 12.0 Spike	Date Analyzed: 2009-02-10 Analyzed B Sample Preparation: 2009-02-10 Prepared B RL Dilution Dilution 36.7 mg/Kg 1 Spike Percent Result Units Dilution 36.7 mg/Kg 1 Spike Percent Result Units Dilution Amount Recovery 0.920 0.920 mg/Kg 1 1.00 1.25 mg/Kg 1 1.00 39 Date Analyzed: 2009-02-10 Analyze QC Preparation: 2009-02-10 Prepare MDL Result Units 2009-02-10 Prepare MDL Result Units MDL Result Units Spike Percent

¹High surrogate recovery due to peak interference.

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Report Date: February 12, 20 115-6403679	009	· · ·	St. Ma	Work C ary/Tirano	ordér: 902 CNG #1	0922 Tank Ba	ttery		Page I Edo	Number dy Cour	:: 6 of 9 hty, NM
_				М	DL						
Parameter	Fl	ag		Res	sult		U	nits	_		RL
GRO				<0.	482	· · ·	mg	g/Kg			1
Surrogate		Flag	Result	Units	Dih	ition	Spike Amount	Per Reco	cent overv	Re Li	covery imits
Trifluorotoluene (TFT)		<u> </u>	0.950	mg/K	g	1	1.00	9)5	75.8	3 - 98.5
4-Bromofluorobenzene (4-BF)	3)	•	0.968	mg/K	g	1	1.00	9	07	56.5	- 109.5
Laboratory Control Spike QC Batch: 56739 Prep Batch: 48474	(LC	S-1)	Date A QC Pi	Analyzed: reparation:	2009-02- 2009-02-	-10 -10			Anal Prep	yzed By ared By	r: LD r: LD
		_									
Discourse		LC	S .14	TTu:+-	Dil	Spike	Mat	trix	D.,]	Rec.
Param		Rest		Units	Dil.	Amount	- Res		Rec.	07.0	Amit
Dr.U	+h.a. an	20		hand on	the entities	200	<u>ر ا</u>	2.0	100	41.0	- 102.1
Percent recovery is based on	une si	orke result.	KPD 1	s based on	the spike	and spike	duplicate	e result.			
		LCSD			Spike	Matrix		Rec	2.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Lim	it	RPD	Limit
DRO		290	_mg/K	g 1	250	<12.0	116	27.8 - 1	152.1	10	20
Percent recovery is based on $% \label{eq:percent} % \begin{tabular}{lll} \end{tabular} \end{tabular} \end{tabular} \end{tabular} \end{tabular} \end{tabular} \begin{tabular}{lll} \end{tabular} \end$	the sp	oike result.	RPD i	s based on	the spike	and spike	duplicate	e result.			
I	.CS	LCSI)			Spike	Ŀ	25	LCSD		Rec
Surrogate R	esult	Resul	lt	Units	Dil.	Amoun	t Re	ec.	Rec.		Limit
n-Triacontane	03	108	1	mg/Kg	1	100	10)3	108	38	- 130.4
Laboratory Control Spike QC Batch: 56758 Prep Batch: 48493	e (LC	S-1)	Date A QC Pi	Analyzed: reparation:	2009-02 2009-02	-10 -10			Anal Prep	yzed By ared By	y: AR 7: AR
		L	CS			Spik	e l	Matrix			Rec.
Param		Re	sult	Units	Dil.	Αποι	int]	Result	Ree	<u>c.</u>	Limit
Chloride			7.9	mg/Kg	1	100)	<2.01	98	3	85 - 115
Percent recovery is based on	the s	pike result	. RPD i	s based on	the spike	and spike	e duplicat	e result.			
		LCSD			Spike	Matu	rix	R	ec.		RPD
Param		Result	Unit	ts Dil.	Amoun	it Resu	ilt Red	. Lii	mit	RPD	Limit
Chloride		99.3	mg/l	Kg 1	100	<21	1 99	85 -	115	1	20

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

Report Date: February 1 115-6403679	2, 2009	S	t. Mar	Ŵork y/Tiran	Order: 902 to CNG #1	20922 1 Tank	Batter	у		Page Ede	Number dy Cour	:: 7 of 9 nty, NM
Laboratory Control S	pike (LCS-	1)										
QC Batch: 56768		Γ	ate An	alvzed:	2009-02	2-10				Anal	vzed By	: AG
Prep Batch: 48501		Ç	C Prep	paration	: 2009-02	2-10				Prepa	ared By	: AG
		TCS				S ail		Mot			1	200
Param		Result	τ	Inits	Dil.	Amou	int.	Resi	ilt.	Bec.	Ţ	imit
GRO		9.03	m	g/Kg	1	10.0	0	< 0.4	82	90	60.5	- 100.1
Percent recovery is based	on the spik	e result. R	PD is l	pased or	1 the spike	and sp	ike duj	plicate	result	i.		
		LCSD			Spike	Mati	rix		R	lec.		RPD
Param		Result	Units	Dil.	Amount	Rest	ilt _	Rec.	Li	mit	RPD	Limit
GRO		8.98 n	ıg/Kg	1	10.0	<0.4	.82	90	60.5	- 100.1	1	20
Percent recovery is based	on the spik	e result. R	PD is l	based of	n the spike	and sp	ike du	plicate	result	.		
		LCS	LCS	SD			Spike	e]	LCS	LCSD		Rec.
Surrogate		Result	Res	ult	Units	Dil.	Amou	nt l	Rec.	Rec.	I	imit
Trifluorotoluene (TFT)		0.992	0.9	89 r	ng/Kg	1	1.00		99	99	78.8	- 104.7
4-Bromofluorobenzene (4	-BFB)	1.03	1.0)5 r	ng/Kg	1	1.00		103	105	66.1	- 107.3
QC Batch: 56739 Prep Batch: 48474		1	Jate Ai QC Pre	nalyzed: paration	2009-0: n: 2009-0:	2-10 2-10				Anal Prep	ared B	y: LD 7: LD
		MS				$_{\mathrm{Sp}}$	ike	Ma	atrix			Rec.
Param		Result	5	Units	Dil.	Am	ount_	Re	sult	Rec.		Limit
DRO	2	296	r	ng/Kg	1	2	50	2	96	0	18	- 179.5
Percent recovery is based	on the spil	æ result. R	PD is	based o	n the spike	e and sp	ike du	plicate	resul	t.		
		MSD			Spike	Ma	ıtrix		1	Rec.		RPD
Param		Result	Units	Dil.	Amoun	t Re	sult	Rec.	L	imit	\mathbf{RPD}	Limit
DRO	3	288	mg/Kg	1	250	2	96	0	18 -	- 179.5	3	20
Percent recovery is based	on the spil	e result. R	PD is	based o	n the spike	e and sp	oike du	plicate	resul	t.		
	MS	MSD				Sp	oike	Ν	ſS	MSD		Rec.
Surrogate	Result	Result	1	Units	Dil.	Am	ount_	R	ec.	Rec.		Limit
n-Triacontane	122	113	n	ng/Kg	1	1	00	1	22	113	34	l.1 - 158
Matrix Spike (MS-1)	Spiked S	ample: 186 I	983 Date Au	nalvzed	2000-0	2_10				4 na	ward B	e- AR
Prep Batch: 48493		1 (DC Pre	naratio	n: 2009-0	2-10 2-10				Prer	ared R	v: AR
TOP DURAL TOTO			a 🔾 1 1 C	Paratio	2000-0	- 10				rict	anca D	<i>,.</i>

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²Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. ³Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: February 12, 2009 115-6403679	St. M	Work lary/Tiran	Order: 9020 o CNG #1	0922 Tank Batte	ery		Page l Edd	Number iy Cour	: 8 of 9 nty, NM
Param	MS Result	Units	Dil.	Spike Amount	Ma Re	trix sult	Rec		Rec.
Percent recovery is based on the spike	result_RPD	is based on	the spike s	and spike d	4 Inlicate r	00 200011	102		55 - 115
recent recovery is based on the opine					apricate r	n			DDD
Param	wou Result Uni	ts Dil	Amount	Result	Rec	R Li	ec. mit	RPD	Limit
Chloride	5560 mg/l	Kg 50	5000	483	102	85 -	115	1	20
Percent recovery is based on the spike	result. RPD	is based on	the spike a	and spike d	uplicate 1	esult.			
Matrix Spike (MS-1) Spiked Sa	mple: 186984								
QC Batch: 56768 Prep Batch: 48501	Date QC P	Analyzed: reparation	2009-02- :: 2009-02-	10 10			Analy Prepa	zed By ared By	: AG : AG
	MS			Spike	Matr	ix]	Rec.
Param	Result	Units	Dil.	Amount	Resu	<u>lt</u>	Rec.	<u>I</u>	imit
GRO	37.0	mg/Kg	<u>i</u>	10.0	36.7		9	12.8	- 175.2
Percent recovery is based on the spike	e result. RPD	is based or	i the spike a	and spike d	uplicate	resuit.			
]	MSD		Spike	Matrix	_	Re	ec.		RPD
Param F	Result Unit	s Dil.	Amount	Result	Rec.		ait	RPD	Limit
GRO		.g I : . Ъ	10.0	<u> </u>	409	12.8 -	170.2	09	20
Percent recovery is based on the spike	e result. RPD	is based of	i the spike a	and spike d	uplicate	result.			
	MS	MSD		\mathbf{Sp}	ike	MS	MSD		Rec.
Surrogate	Result 1	Result	Units 1	Dil. Am	ount 1	Rec.	Rec.	I	imit
Trifluorotoluene (TFT) 4 Bromofluorohongone (4 BFB)	1.10	1.10 i	mg/Kg	1	l 1	110	110	60.8 21.2	132.1
4-Bromonuorobenzene (4-BrB)	1.10	1.42	mg/ ng	1	L	110	142	31.3	- 101.7
Standard (ICV-1)	D .							1.5	
QC Batch: 56739	Date	Analyzed:	2009-02-1	10			Anal	yzed B	y: LD
	ICVs	I	CVs	ICVs		Perce	ent		
	True	Fo	ound	Percent		Recov	ery		Date
Param Flag Units	Conc.	C	onc.	Recovery		Limi	ts	A)	halyzed
DRO mg/Kg	250		250	100		85 - 1	115	200	J9-02-10
Standard (CCV-1)									
						Analyzed By: I			

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⁴Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. ⁵Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Report Date 115-6403679	e: February 1	2, 2009	St. Mary	Work Order: 9 /Tirano CNG 7	020922 #1 Tank Battery	Page Ed	Number: 9 of 9 dy County, NM
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Standard (ICV-1) QC Batch: 56758 Date Analyzed: 2009-02-10 Analyzed By: Param Flag Units Conc. Conc. Recovery Limits Ana Param Flag Units Conc. Conc. Recovery Limits Ana Chloride mg/Kg 100 100 100 85 - 115 2009 Standard (CCV-1) QC Batch: 56758 Date Analyzed: 2009-02-10 Analyzed By: QCVs CCVs CCVs Percent Recovery D Param Flag Units Conc. Conc. Recovery D QC Batch: 56758 Date Analyzed: 2009-02-10 Analyzed By: CVs CVs Percent Recovery D Param Flag Units Conc. Conc. Recovery D Analyzed By: ICVs ICVs ICVs Percent Recovery D QC Batch: 56768 Date Analyzed: 2009-02-10 Analyzed By: Imits Ana QC Batch: 56768 Date Analyzed: 2009-02-10 Analyz	DRO		mg/Kg	250	260	104	85 - 115	2009-02-10
QC Batch:56758Date Analyzed:2009-02-10Analyzed By:ICVsICVsICVsPercentRecoveryD.ParamFlagUnitsConc.Conc.Conc.RecoveryD.Chloridemg/Kg10010010085 - 1152009Standard (CCV-1)QC Batch:56758Date Analyzed:2009-02-10Analyzed By:CCVsCCVsCCVsPercentParamFlagUnitsConc.Conc.RecoveryDParamFlagUnitsConc.Conc.RecoveryDParamFlagUnitsConc.Conc.RecoveryDStandard (ICV-1)QC Batch:56768Date Analyzed:2009-02-10Analyzed By:ICVsICVsICVsICVsPercentRecoveryDParamFlagUnitsConc.Conc.RecoveryDQC Batch:56768Date Analyzed:2009-02-10Analyzed By:ICVsICVsICVsICVsPercentRecoveryDParamFlagUnitsConc.Conc.RecoveryDQC Batch:56768Date Analyzed:2009-02-10Analyzed By:CCVsCCVsCCVsPercentRecoveryDQC Batch:56768Date Analyzed:2009-02-10Analyzed By:CCVsCCVsCCVsPercentRecoveryDRenamic<	Standard (ICV-1)						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	QC Batch:	56758		Date Ana	lyzed: 2009-0	2-10	Anal	yzed By: AR
Chloride mg/Kg 100 100 100 85 - 115 2009 Standard (CCV-1) QC Batch: 56758 Date Analyzed: 2009-02-10 Analyzed By: Param Flag Units Conc. COVs CVs Percent Param Flag Units Conc. Conc. Recovery D Param Flag Units Conc. Conc. Recovery D Standard (ICV-1) QC Batch: 56768 Date Analyzed: 2009-02-10 Analyzed By: ICVs ICVs ICVs Percent Recovery D Param Flag Units Conc. Conc. Recovery D QC Batch: 56768 Date Analyzed: 2009-02-10 Analyzed By: ICVs ICVs Percent Racover, D Conc. Conc. Conc. Recovery D Inits Analyzed By: QC Batch: 56768 Date Analyzed: 2009-02-10 Analyzed By: CVs CVs Percent QC Batch: 56768 Date Analyzed: 2009-02-10 Analyzed By: CVs	Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
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Standard (CCV-1) QC Batch: 56768 Date Analyzed: 2009-02-10 Analyzed By: CCVs CCVs CCVs Percent True Found Percent Recovery D Param Flag Units Conc Recovery D	<u> </u>		mg/ Kg		1.04	104	0110	2009-02-10
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PAGE: / OF: /	ANALYSIS REQUEST (Circle or Specify Method No.)	D2 D2 C D2 C D2 C D2 C D2 C D2 C C D2 C D2 C C D2 C C D2 C C D2 C C D2 C C D2 C C D2 C C D2 C C D2 C C C D2 C C C C	Address Total (1990) Address T	PPH 8270 PPH 8270 PCRA Metals TCLP Votatiles TCLP Votatiles PCB's 8080/60 PcB's 80800 PCB's 80800 PCB's 80080 PCB's 80080 PCB's 80080 PCB's 80080 PCB's 8080								Mohat 6 who & Johny Tetsut none 1653		TETRA TECH CONTACT PERSON: Results by:	- The Thurston Autorization	
stody Boond	nionau Annie				X X X X X X X X X X X X X X	X 1						Time: 16:53	Time:	Oate: Time:	Time	idland.
oct of Chain of Cu		TETRATECH 1910 N. Big Spring St. Midland, Texas 79705 (432) 682-4559 • Fax (432) 682-3946	HUN SITE MANAGER: THE TAUR	1/ 1 114 MU LIVE 57476 #11 Eduy Lounty / NUM SAMPLE IDENTIFICATION	AH-1 3'-3.5' BEB(AH-1 5'-5.5' BEB (1	AH-7 3'-3.5'					Time 16.53 " " YY "		Date:	ZIP: ARCEIVED 8Y: (Signature)	REMARKS: All tests N
Analysis Boon		Ê	NT NAME: 54. Mary Land & Explore JECT NO.: PROJECT	12 - C-T-U - D-D-D-D-D-D-D-D-D-D-D-D-D-D-D-D-D-D	A82/1/109 5 X	X3 2/11/091 5 X	78421969 51 X	-			NIISUED DV: /Sinnahurak	Let a Later f		QUISHED BY: (Signature)	VING LABORATORY: 7/ 4 CC 355: 7/ (1 e.net) STATE: 7/ PHONE	LE CONDITION WHEN RECEIVED: 11.3°C , intact

Summary Report

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

Report Date: March 13, 2009

Work Order: 9030419

Project Location:	Eddy County, NM
Project Name:	St. Mary/Tirano CNG #1 Tank Battery
Project Number:	115-6403679

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
189000	T-1 4.0'	soil	2009-03-03	00:00	2009-03-04
189005	T-2 2.0'	soil	2009-03-03	00:00	2009-03-04
189006	T-2 3.0'	soil	2009-03-03	00:00	2009-03-04
189009	T-3 4.0'	soil	2009-03-03	00:00	2009-03-04
189010	T-3 5.0'	soil	2009-03-03	00:00	2009-03-04
189011	T-3 6.0'	soil	2009-03-03	00:00	2009-03-04
189012	T-3 8.0'	soil	2009-03-03	00:00	2009-03-04
189013	T-3 10.0'	soil	2009-03-03	00:00	2009-03-04
189014	Background #1 0-1.0'	soil	2009-03-03	00:00	2009-03-04
189015	Background #1 2.0'	soil	2009-03-03	00:00	2009-03-04
189016	Background #1 4.0'	soil	2009-03-03	00:00	2009-03-04
189017	Background #1 6.0'	soil	2009-03-03	00:00	2009-03-04
189018	Background #1 8.0'	soil	2009-03-03	00:00	2009-03-04
189019	Background #1 10.0'	soil	2009-03-03	00:00	2009-03-04
189020	Background #1 12.0'	soil	2009-03-03	00:00	2009-03-04
189021	Background #2 0-1.0'	soil	2009-03-03	00:00	2009-03-04
189022	Background #2 2.0'	soil	2009-03-03	00:00	2009-03-04
189023	Background #2 4.0'	soil	2009-03-03	00:00	2009-03-04
189024	Background #2 6.0'	soil	2009-03-03	00:00	2009-03-04
189025	Background #2 8.0'	soil	2009-03-03	00:00	2009-03-04

	TPH DRO	TPH GRO
	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)
189000 - T-1 4.0'	<50.0	1.83
189005 - T-2 2.0'	102	2.96
189006 - T-2 3.0'	<50.0	<1.00

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Report Date: March 13, 2009 115-6403679		Work Order: 9030419 St. Mary/Tirano CNG #1 Tan	Page Number: 2 of 4 Eddy County, NM	
Sample: 189009 -	T-3 4.0'			
Param	Flag	Result	Units	RL
Chloride		1270	mg/Kg	4.00
Sample: 189010 -	T-3 5.0 '			
Param	Flag	Result	Units	RL
Chloride		1800	mg/Kg	4.00
Sample: 189011 -	T-3 6.0 '			
Param	Flag	Result	Units	RL
Chloride		1530	mg/Kg	4.00
Sample: 189012 - Param Chloride	- T-3 8.0' Flag	Result 886	Units mg/Kg	RL 4.00
Sample: 189013 -	· T-3 10.0'			
Param	Flag	Result	Units	RL
Chloride	······	784	mg/Kg	4.00
Sample: 189014 -	- Background #1 0-	-1.0'		
Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00
Sample: 189015 -	- Background #1 2.	.0'		
Param	Flag	Result	Units	\mathbf{RL}
Chloride		<200	mg/Kg	4.00
Sample: 189016	- Background #1 4	.0'		
Param	Flag	Result	Units	RL
Chloride		297	mg/Kg	4.00

Report Date: March 13, 2009 115-6403679		Work Order: 9030419 St. Mary/Tirano CNG #1 Tanl	Page Number: 3 of 4 Eddy County, NM	
Sample: 189017 -	Background #1 6.0)'		
Param	Flag	Result	Units	\mathbf{RL}
Chloride		<200	mg/Kg	4.00
Sample: 189018 -	Background #1 8.0	0,		
Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00
Sample: 189019 -	Background #1 10	.0'		
Param	\mathbf{Flag}	Result	Units	RL
Chloride		213	mg/Kg	4.00
Sample: 189020 -	Background #1 12	2.0'		
Param	Flag	Result	Units	RL
Chloride	·····	<200	mg/Kg	4.00
Sample: 189021 -	· Background #2 0-	1.0'	,	
Param	\mathbf{Flag}	Result	Units	\mathbf{RL}
Chloride		<200	mg/Kg	4.00
Sample: 189022 -	· Background #2 2.	0'		
Sample: 189022 - Param	Background #2 2.	0' Result	Units	RL
Sample: 189022 - Param Chloride	Background #2 2.	0' Result 229	Units mg/Kg	RL 4.00
Sample: 189022 - Param Chloride	• Background #2 2. Flag	0' 	Units mg/Kg	RL 4.00
Sample: 189022 - Param Chloride Sample: 189023 -	· Background #2 2. Flag · Background #2 4.	0' <u>Result</u> 229 0'	Units mg/Kg	RL 4.00
Sample: 189022 - Param Chloride Sample: 189023 - Param	 Background #2 2. Flag Background #2 4. Flag 	0' <u>Result</u> 0' <u>Result</u>	Units mg/Kg Units	RL 4.00
Sample: 189022 - Param Chloride Sample: 189023 - Param Chloride	- Background #2 2. Flag - Background #2 4. Flag	0' <u>Result</u> 0' <u>Result</u> <u>609</u>	Units mg/Kg Units mg/Kg	RL 4.00 RL 4.00
Sample: 189022 - Param Chloride Sample: 189023 - Param Chloride Sample: 189024 -	Background #2 2. Flag Background #2 4. Flag Background #2 6.	0' <u>Result</u> 0' <u>Result</u> <u>609</u> 0'	Units mg/Kg Units mg/Kg	RL 4.00 RL 4.00
Sample: 189022 - Param Chloride Sample: 189023 - Param Chloride Sample: 189024 - Param	- Background #2 2. Flag - Background #2 4. Flag - Background #2 6. Flag	0' <u>Result</u> 0' <u>Result</u> 0' 8esult	Units mg/Kg Units mg/Kg	RL 4.00 RL 4.00 RI

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.

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115-6403679St. Mary/Tirano CNG #1 Tank BatteryEddy County, NM	Report Date: March 13, 2009	Work Order: 9030419	Page Number: 4 of 4
	115-6403679	St. Mary/Tirano CNG #1 Tank Battery	Eddy County, NM

Sample: 189025 - Background #2 8.0'

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Param	Flag	Result	Units	RL
Chloride		890	mg/Kg	4.00