District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

# HOBBSOCD

State of New Mexico Energy Minerals and Natural Resource 1 4 2015

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

			Rele	ease Notific	cation	and Co	orrective A	ction		
						OPERA'	FOR		Initi	al Report 🛛 Final Repor
Name of Co	ompany: F	Resolute Nati	ural Reso	urces Co, LLC	(	Contact: Pa	trick Flynn			
Address: 1	700 Lincol	In Street Suit	e 2800, I	Denver, CO 802	03 7	Telephone 1	No. 303.534.46	00 X1145		
Facility Nat	me: Shell	Maxwell No	. I Tank	Battery	1	acility Typ	e: Tank Batter	у		
Surface Ow	mer			Mineral C	)wner			A	PI No	o.: 30-025-05164
				LOCA	TION	OF REI	LEASE			
Unit Letter	Section 27	Township 14S	Range 37E	Feet from the	North/S	South Line	Feet from the	East/West ]	Line	County Lea
	1		I	Latitude: 33.07	354N	Longitu OF DEL 1	ide: 103.18503	W		
Type of Rele	ese Produc	red water		INAI	UKE	Volume of	Release 10 Bhl	Vol	ume	Recovered: 10 Bbl water
Source of Re	elease: Corre	oded steel wat	er line			Date and H	lour of Occurrence	e: Date	e and	Hour of Discovery:
Was Immedi	ate Notice (	Given?	Yes 🛛	No 🗌 Not Re	equired	If YES, To	Whom?		10 (0)	, U 12 T X XYX
By Whom?						Date and H	lour			THE THE STATE OF THE STATE
Was a Water	course Read	ched?	Yes 🛛	No		If YES, Vo	olume Impacting t	he Watercour	rse.	
Describe Cat Corrosion of Fluids were o	use of Probl steel water contained by	em and Reme line connecter y location berr	dial Action 1 to SWD n.	n Taken.* well caused pinhe	ole leak.	REV	EWED	repaired, and	a vac	c truck used to collect the fluids.
Describe Are All released to Gandy Marle excavated for attached. Res	a Affected fluids were cy facility for r offsite disp sidual high o	and Cleanup A contained with or disposal and posal at the Ga chloride conce	Action Tak nin the ber l oil was ro undy Mark ntration ro	ren.* m. A vacuum tru- eturned to the pro ey landfarm. Con emains at the well	ck was us duction t firmation head and	By Ke sed to recove ank. Approx a soil sample d the area wi	The Jones a most of the fluid imately six cubic s were collected a ll be flushed with	d released. Thy yards of affer and the labora fresh water.	m, ne rec cted p tory a No fu	Dec 14, 2015 covered water was taken to the bea gravel and soil was analysis and site plan are orther action is planned.
I hereby certi regulations a public health should their o or the enviro federal, state	ify that the i ll operators or the envi operations h nment. In a , or local by	information gi are required to ronment. The nave failed to a addition, NMC ws and/or regu	ven above o report an acceptance dequately CD accep lations.	is true and comp ad/or file certain r ce of a C-141 repo investigate and r tance of a C-141	lete to the elease no ort by the emediate report do	e best of my otifications au NMOCD m contaminations not reliev	knowledge and u nd perform correc arked as "Final R on that pose a thr e the operator of r	nderstand that tive actions f eport" does n eat to ground responsibility	or rel ot rel wate	suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human health compliance with any other
Signature:	172	7	•				OIL CON	SERVAT	ION	DIVISION
Printed Name	e: Patrick F	Tynn			A	Approved by	Environmental S	pecialist:		
Title: Vice P	resident				A	pproval Dat	FUKI	VIAL	Ation 1	
E-mail Addre	ess: pflynn(	@resoluteener	gy.com			Conditions of	Approval:			Attached
Date: 12	2/9/15	Phone:	303.534.4	4600 X1145						

\* Attach Additional Sheets If Necessary



# **Summary Report**

James Allison Resolute Energy 4000 N. Big Spring #500 Midland, TX 79705

Report Date: November 19, 2015

Work Order: 15111817

Project Location: Lea Co, NM Project Name: Shell Maxwell

			Date	Time	Date	
Sample	Description	Matrix	Taken	Taken	Received	
408549	SS 1	soil	2015-11-17	13:15	2015-11-18	
408550	SS 2	soil	2015-11-17	13:15	2015-11-18	
408551	SS 3	soil	2015 - 11 - 17	13:15	2015-11-18	

Sample: 4	08549 -	$\mathbf{SS}$	1
-----------	---------	---------------	---

Param	Flag	Result	Units	RL
Chloride		3250	mg/Kg	50

#### Sample: 408550 - SS 2

Param	Flag	Result	Units	RL
Chloride		957	mg/Kg	50

#### Sample: 408551 - SS 3

Param	$\operatorname{Flag}$	Result	Units	RL
Chloride		287	mg/Kg	50

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# Analytical and Quality Control Report

James Allison Resolute Energy 4000 N. Big Spring #500 Midland, TX, 79705

Report Date: November 19, 2015

Work Order: 15111817

Project Location: Lea Co, NM Project Name: Shell Maxwell Project Number: Shell Maxwell

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	
408549	SS 1	soil	2015-11-17	13:15	2015-11-18	
408550	SS 2	soil	2015-11-17	13:15	2015-11-18	
408551	SS 3	soil	2015-11-17	13:15	2015-11-18	

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.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blain Leptinch

Dr. Blair Leftwich, Director James Taylor, Assistant Director Brian Pellam, Operations Manager

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Laboratory Control Spikes         QC Batch 126453 - LCS (1)	7 7
Matrix Spikes           QC Batch 126453 - MS (1)	<b>8</b> 8
Calibration Standards           QC Batch 126453 - ICV (1)           QC Batch 126453 - CCV (1)	<b>9</b> 9 9
Appendix       1         Report Definitions       1         Laboratory Certifications       1         Standard Flags       1         Attachments       1	.0 10 10

# Case Narrative

Samples for project Shell Maxwell were received by TraceAnalysis, Inc. on 2015-11-18 and assigned to work order 15111817. Samples for work order 15111817 were received intact at a temperature of 4.1 C.

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

		Prep	Prep	$\rm QC$	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (Titration)	SM 4500-Cl B	107013	2015-11-19 at 09:40	126453	2015-11-19 at 10:46

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 15111817 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: 15111817 Shell Maxwell

# Analytical Report

### Sample: 408549 - SS 1

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 126453 107013	Analytic Date An Sample l	al Method: alyzed: Preparation:	SM 4500-Cl B 2015-11-19 2015-11-19	Prep Method: Analyzed By: Prepared By:	N/A AM AM
			$\operatorname{RL}$			
Parameter	Flag	Cert	Result	Units	Dilution	$\mathbf{RL}$
Chloride			3250	mg/Kg	5	50.0

### Sample: 408550 - SS 2

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 126453 107013	Analytic Date An Sample I	al Method: alyzed: Preparation:	SM 4500-Cl B 2015-11-19 2015-11-19	Prep Method: Analyzed By: Prepared By:	N/A AM AM
			$\operatorname{RL}$			
Parameter	Flag	Cert	Result	Units	Dilution	$\operatorname{RL}$
Chloride			957	mg/Kg	5	50.0

### Sample: 408551 - SS 3

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titrat: 126453 107013	ion)	Analytic Date An Sample 1	al Method: alyzed: Preparation:	SM 4500-Cl B 2015-11-19 2015-11-19	Prep Method: Analyzed By: Prepared By:	N/A AM AM
Parameter		Flag	Cert	$\operatorname{RL}$ Result	Units	Dilution	RL
Chloride				287	$\mathrm{mg/Kg}$	5	50.0

Report Date: November 19, 2015 Shell Maxwell	Work Order: 15111817 Shell Maxwell	Page Number: 6 of 11 Lea Co, NM
Method Blanks		
Method Blank (1) QC Batch: 126	453	
QC Batch: 126453 Prep Batch: 107013	Date Analyzed: 2015-11-19 QC Preparation: 2015-11-19	Analyzed By: AM Prepared By: AM

			MDL		
Parameter	$\operatorname{Flag}$	Cert	Result	Units	RL
Chloride			<31.9	mg/Kg	50

Work Order: 15111817 Shell Maxwell

# Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	126453 107013			Date QC I	Analyzec Preparatic	l: 201 on: 201	5-11-19 5-11-19			Ana Pre	alyzed By pared By	y: AM y: AM
_			-	<i>a</i>	LCS		Du	Spike	M	atrix	D	Rec.
Param			F	C I	lesult	Units	Dil.	Amount	Re	esult	Rec.	Limit
Chloride					2490	mg/Kg	5	2500	<	160	100	85 - 115
Percent recov	very is based on the	e spike	resu	lt. RPD	is based o	on the sp	oike and sp	ike duplica	ate resi	ult.		
				LCSD			Spike	Matrix		Rec.		RPD
Param		F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride				2200	mg/Kg	5	2500	<160	88	85 - 11	5 12	20

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

Work Order: 15111817 Shell Maxwell

# Matrix Spikes

Matrix Spil	œ (MS-1)	Spiked Sa	mple	: 408580								
QC Batch: Prep Batch:	126453 107013			Date QC	e Analyze Preparat	ed: 20 ion: 20	15-11-19 15-11-19			An Pre	alyzed By epared By	: AM : AM
Param			F	CH	MS Result	Units	Dil.	Spike Amount	Ma Re	atrix esult F	lec.	Rec. Limit
Chloride				ļ	59400	mg/Kg	5	2500	57	7300	84 78	.9 - 121
Percent recov	very is based or	n the spike	e rest	ılt. RPD	is based	on the s	spike and s	pike dupli	icate re	sult.		
				MSD			Spike	Matrix		Rec.		RPD
Param		F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride				59300	mg/Kg	5	2500	57300	80	78.9 - 12	21 0	20

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

Work Order: 15111817 Shell Maxwell

# **Calibration Standards**

Standard (ICV-1)

QC Batch:	126453			Date A	Analyzed:	2015-11-19		Analy	zed By: AM
					ICVs	ICVs	ICVs	Percent	
					True	Found	Percent	Recovery	Date
Param		Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride				mg/Kg	100	100	100	85 - 115	2015-11-19

### Standard (CCV-1)

QC Batch:	126453			Date A	Analyzed:	2015-11-19		Analy	zed By: AM
					CCVs	CCVs	CCVs	Percent	
					True	Found	Percent	Recovery	Date
Param		Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride				mg/Kg	100	100	100	85 - 115	2015-11-19

Work Order: 15111817 Shell Maxwell

Page Number: 10 of 11 Lea Co, NM

# Appendix

## **Report Definitions**

NameDefinitionMDLMethod Detection LimitMQLMinimum Quantitation LimitSDLSample Detection Limit

## Laboratory Certifications

	Certifying	Certification	Laboratory
С	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis

## Standard Flags

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

## Attachments

Work Order: 15111817 Shell Maxwell Page Number: 11 of 11 Lea Co, NM

The scanned attachments will follow this page.

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

LAB Order	ID # 6	11181	7																										P	age	ə			of		Petersbalor	_
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LAB #		FIELD CODE		# CONTAIN	Volume / Am	WATER	SOIL	SLUDGE		HCI	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	CE	NONE	DATE	TIME	UTOF 000	BTEX 8021	TPH 418.1 /	PAH 8015 0	fotal Metals Ac	TCLP Metals	TCLP Volatil	TCLP Pestic	RCI	GC/MS Vol.	GC/MS Sem	Pesticides 8(	BOD, TSS, p	Maisture Cor	CLF, SO4, N	Na, Ca, My,	-		Turn Around	
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# **Summary Report**

James Allison Resolute Energy 4000 N. Big Spring #500 Midland, TX 79705

Report Date: October 5, 2015

Work Order: 15093033

Project Location: Lea Co, NM Project Name: Shell Maxwell

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
405536	SS-1	soil	2015-09-30	13:35	2015-09-30
405537	SS-2	soil	2015-09-30	13:35	2015-09-30
405538	SS-3	soil	2015-09-30	13:35	2015-09-30

		<u>.</u>	BTEX		TX1005	Extended
	Benzene	Toluene	Ethylbenzene	Xylene	C6-C12	>C12-C35
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
405536 - SS-1	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	<50.0
405537 - SS-2	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	$<\!50.0$
405538 - SS-3	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	$<\!50.0$

### Sample: 405536 - SS-1

Param	Flag	Result	Units	$\operatorname{RL}$
Chloride		3220	mg/Kg	4

### Sample: 405537 - SS-2

Param	Flag Res	ult Units	RL
Chloride	237	00 mg/Kg	4

#### Sample: 405538 - SS-3

continued ...

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Report Date: Octo	ober 5, 2015	Work Order: 15093033	Page	e Number: 2 of 2
sample 405538 cor	utinued			
Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Chloride		4200	mg/Kg	4



WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

James Allison Resolute Energy 4000 N. Big Spring #500 Midland, TX, 79705

Report Date: October 5, 2015

Work Order: 15093033

Project Location: Lea Co, NM Project Name: Shell Maxwell Project Number: Shell Maxwell

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
405536	SS-1	soil	2015-09-30	13:35	2015-09-30
405537	SS-2	soil	2015-09-30	13:35	2015-09-30
405538	SS-3	soil	2015-09-30	13:35	2015-09-30

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.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

This report consists of a total of 18 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blain Leptinich

Dr. Blair Leftwich, Director James Taylor, Assistant Director Brian Pellam, Operations Manager

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Matrix Spikes         1           QC Batch 125260 - xMS (1)         1           QC Batch 125316 - MS (1)         1           QC Batch 125322 - MS (1)         1	13 13 14
Calibration Standards       1         QC Batch 125260 - CCV (2)       1         QC Batch 125260 - CCV (3)       1         QC Batch 125316 - CCV (2)       1         QC Batch 125316 - CCV (3)       1         QC Batch 125322 - ICV (1)       1         QC Batch 125322 - CCV (1)       1	.5 15 15 15 16 16
Appendix       1         Report Definitions       1         Laboratory Certifications       1         Standard Flags       1         Attachments       1	.7 17 17 17

# **Case Narrative**

Samples for project Shell Maxwell were received by TraceAnalysis, Inc. on 2015-09-30 and assigned to work order 15093033. Samples for work order 15093033 were received intact at a temperature of 6.3 C.

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

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	105983	2015-10-02 at 07:03	125316	2015-10-05 at 08:56
Chloride (Titration)	SM 4500-Cl B	106013	2015-10-05 at 11:35	125322	2015-10-05 at 09:10
TX1005 Extended	TX1005	105946	2015-09-30 at 14:47	125260	2015-10-01 at 09:36

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 15093033 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: 15093033 Shell Maxwell

# **Analytical Report**

### Sample: 405536 - SS-1

Laboratory:	Midland										
Analysis:	BTEX			Analytica	l Method:	S 80	21B			Prep Method:	: S 5035
QC Batch:	125316		]	Date Ana	lyzed:	2015	5-10-05	5		Analyzed By:	AK
Prep Batch:	105983		(	Sample P	reparation	n: 2015	5-10-02	2		Prepared By:	AK
						RL					
Parameter		Flag		Cert		Result		Units		Dilution	RL
Benzene		U		5	<	< 0.0200		mg/Kg		1	0.0200
Toluene		υ		5	<	< 0.0200		mg/Kg		1	0.0200
Ethylbenzene		U		5	<	< 0.0200		mg/Kg		1	0.0200
Xylene		U		5	<	< 0.0200		mg/Kg		1	0.0200
									Spike	Percent	Recovery
Surrogate			Flag	Cert	Result	Unit	s l	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)				1.90	mg/k	٢g	1	2.00	95	70 - 130
4-Bromofluor	obenzene (4-BFB)				1.93	mg/F	ζġ	1	2.00	96	70 - 130
Sample: 40	5536 - SS-1										
Laboratory:	Midland										
Analysis:	Chloride (Titratio	on)		Anal	ytical Me	thod:	SM 4	500-Cl B		Prep Metho	od: N/A
QC Batch:	125322			Date	Analyzed	1:	2015-	-10-05		Analyzed B	y: AM
Prep Batch:	106013			Sam	ple Prepai	ration:	2015-	-10-05		Prepared B	y: AM
						RL					
Parameter		Flag		Cert		Result		Units	5	Dilution	$\mathbf{RL}$
Chloride						3220		mg/Kg	· · · · · · · ·	5	4.00
Sample: 405	5536 - SS-1										
Laboratory:	Midland										

Analysis: QC Batch: Prep Batch:	TX1005 Extende 125260 105946	ed	Analyti Date An Sample	cal Method: nalyzed: Preparation:	TX1005 2015-10-01 2015-09-30	Prep Method: Analyzed By: Prepared By:	N/A AK AK
Parameter		Flag	Cert	RL Result	Units	Dilution	RL
C6-C12		υ	5	<50.0	mg/Kg	1	50.0

continued ...

Report Date: Octobe Shell Maxwell	er 5, 2015	W	Vork Order: 1509303 Shell Maxwell	3	Page Number: 6 of 18 Lea Co, NM			
sample 405536 contin	<i>ued</i>							
			RL					
Parameter	Flag	Cert	Result	Units	Dilution	RL		
>C12-C35	U	5	<50.0	mg/Kg	1	50.0		
				Spike	Percent	Recovery		

Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane				61.9	mg/Kg	1	50.0	124	70 - 130
n-Octane	Qsr	Qsr		70.7	mg/Kg	1	50.0	141	70 - 130
n-Tricosane				63.1	ing/Kg	1	50.0	126	70 - 130

### Sample: 405537 - SS-2

Laboratory: Midland Analysis: BTEX QC Batch: 125316 Prep Batch: 105983		Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8021E 2015-10 2015-10	3 -05 -02		Prep Method Analyzed By: Prepared By:	S 5035 AK AK
				RL				
Parameter	Flag	Cert		Result	Units		Dilution	RL
Benzene	U	5	<	0.0200	mg/Kg		1	0.0200
Toluene	υ	5	<	0.0200	mg/Kg		1	0.0200
Ethylbenzene	U	5	<	0.0200	mg/Kg		1	0.0200
Xylene	U	5	<	0.0200	mg/Kg		1	0.0200
Surrogato	Fla	a Cort	Result	Units	Dilution	Spike A mount	Percent	Recovery
Trifluorotoluono (TET)	1 14	g Out	1 74	mg/Kg	1	2.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)			1.70	mg/Kg	1	2.00	85	70 - 130

### Sample: 405537 - SS-2

Laboratory: Analysis: QC Batch: Prep Batch:	Laboratory: Midland Analysis: Chloride (Titration) QC Batch: 125322 Prep Batch: 106013		lytical Method: e Analyzed: nple Preparation:	SM 4500-Cl B 2015-10-05 2015-10-05	Prep Method: Analyzed By: Prepared By:	N/A AM AM
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			23700	mg/Kg	5	4.00

Report Date: Shell Maxwe	Report Date: October 5, 2015 Shell Maxwell			W	Vork Order: 15 Shell Maxw		Page Number: 7 of 18 Lea Co, NM		
Sample: 403	5537 - SS-	2							
Laboratory: Midland Analysis: TX1005 Extended QC Batch: 125260 Prep Batch: 105946		Analy Date Samp	rtical Method: Analyzed: le Preparation	TX1005 2015-10-0 : 2015-09-3	)1 30	Prep Me Analyzec Preparec	thod: N/A l By: AK l By: AK		
Parameter		I	Flag	Cert	RL Result		Units	Dilution	RL
C6-C12 >C12-C35			υ	5 5	<50.0 <50.0	n	ng/Kg ng/Kg	1 1	50.0 50.0
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane n-Octane n-Tricosane	Qsr	Qsr		62.8 70.7 61.0	mg/Kg mg/Kg mg/Kg	1 1 1	$50.0 \\ 50.0 \\ 50.0 \\ 50.0$	$     \begin{array}{r}       126 \\       141 \\       122     \end{array} $	70 - 130 70 - 130 70 - 130

### Sample: 405538 - SS-3

Laboratory: Analysis: QC Batch: Prep Batch:	Midland BTEX 125316 105983			Analytical Date Anal Sample Pi	Method: lyzed: reparation	S 8021E 2015-10 a: 2015-10	3 05 02		Prep Method Analyzed By: Prepared By:	: S 5035 AK AK
						$\mathbf{RL}$				
Parameter		Flag		Cert		Result	Unit	s	Dilution	RL
Benzene		U		5	<	< 0.0200	mg/K	g	1	0.0200
Toluene		υ		5	<	< 0.0200	mg/K	g	1	0.0200
Ethylbenzene		υ		5	<	< 0.0200	mg/K	g	1	0.0200
Xylene		U		5	<	< 0.0200	mg/K	g	1	0.0200
								Spike	Percent	Recovery
Surrogate			Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)				2.04	mg/Kg	1	2.00	102	70 - 130
4-Bromofluor	obenzene (4-BFB)				1.91	mg/Kg	1	2.00	96	70 - 130

### Sample: 405538 - SS-3

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	125322	Date Analyzed:	2015-10-05	Analyzed By:	AM
Prep Batch:	106013	Sample Preparation:	2015-10-05	Prepared By:	AM

Report Date: October Shell Maxwell	5, 2015	Wo	rk Order: 1509303 Shell Maxwell	Page Number: 8 of 18 Lea Co, NM		
Demosration	Flor	Cont	RL	Flaita	Dilution	DI
Parameter	Flag	Cert	Result	Units	Difution	пL
Chloride			4200	mg/Kg	5	4.00

### Sample: 405538 - SS-3

Laboratory: Midland Analysis: TX1005 Extended QC Batch: 125260 Prep Batch: 105946			Analy Date Samp	rtical Method: Analyzed: le Preparation:	TX1005 2015-10- 2015-09-	TX1005 2015-10-01 2015-09-30		hod: N/A By: AK By: AK	
-				-	RL			-	-
Parameter		F	`lag	Cert	Result		Units	Dilution	RL
C6-C12			U	5	<50.0		mg/Kg	1	50.0
>C12-C35			U	5	<50.0		mg/Kg	1	50.0
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	2			59.4	mg/Kg	1	50.0	119	70 - 130
n-Octane	Qar	Qer		72.0	mg/Kg	1	50.0	144	70 - 130
n-Tricosane				59.0	mg/Kg	1	50.0	118	70 - 130

Work Order: 15093033 Shell Maxwell

# Method Blanks

Method Blank (1	) QC Ba	tch: 125260								
QC Batch: 12526	0		Date A	nalyzed:	2015-10-01			Analyze	d By:	AK
Prep Batch: 10594	.6		QC Pre	eparation:	2015-09-30			Prepare	d By:	AK
						MDL				
Parameter		Flag		Cert		Result		Units		$\mathbf{RL}$
C6-C12				5		< 5.66		mg/Kg		50
>C12-C35				5		<7.50		mg/Kg		50
							Spike	Percent	Rec	covery
Surrogate	Flag	Cert	Result	Units	Dilutio	on .	Amount	Recovery	Li	mits
n-Triacontane			52.7	mg/Kg	ç 1		50.0	105	70	- 130
n-Octane			62.4	mg/Kg	ç 1		50.0	125	70	- 130
n-Tricosane			53.4	mg/Kg	g 1		50.0	107	70	- 130

### Method Blank (1) QC Batch: 125316

QC Batch: 125316		Date A	Analyzed:	2015-10-	05		Analyzed	By: AK
Prep Batch: 105983		QC Pr	eparation:	2015-10-	02		Prepared	By: AK
					MDL			
Parameter	Flag		Cert		Result		Units	$\operatorname{RL}$
Benzene			5		< 0.00533	1	0.02	
Toluene			5		< 0.00645	m mg/Kg		0.02
Ethylbenzene			5		< 0.0116	mg/Kg		0.02
Xylene			5		< 0.00874	1	mg/Kg	0.02
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

Method Bl	ank (1)	QC I	Batch:	125322

QC Batch:	125322	Date Analyzed:	2015-10-05	Analyzed By:	AM
Prep Batch:	106013	QC Preparation:	2015-10-05	Prepared By:	AM

Report Date: October 5, 2015 Shell Maxwell		Work Order: 15 Shell Maxw	Page Number: 10 of 18 Lea Co, NM		
Parameter	Flag	Cert	MDL Result	Units	RL
Chloride	~		<3.85	mg/Kg	4

# Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch:	125260	Date Analyzed:	2015-10-01	Analyzed By:	AK
Prep Batch:	105946	QC Preparation:	2015-09-30	Prepared By:	AK

			LCS			Spike	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	$\operatorname{Amount}$	Result	Rec.	Limit
C6-C12		5	243	mg/Kg	1	250	< 5.66	97	75 - 125
>C12-C35		5	256	mg/Kg	1	250	<7.50	102	75 - 125

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	$\operatorname{Result}$	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$	RPD	$\operatorname{Limit}$
C6-C12		5	277	mg/Kg	1	250	< 5.66	111	75 - 125	13	20
>C12-C35		5	242	mg/Kg	1	250	<7.50	97	75 - 125	6	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\operatorname{Limit}$
n-Triacontane	57.2	50.7	mg/Kg	1	50.0	114	101	70 - 130
n-Octane	46.4	45.7	m mg/Kg	1	50.0	93	91	70 - 130
n-Tricosane	60.2	56.6	mg/Kg	1	50.0	120	113	70 - 130

#### Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	$\frac{125316}{105983}$		I (	Date Analy QC Prepara	A P	Analyzed By: AK Prepared By: AK				
D		T	a	LCS	TT	DI	Spike	Matrix	D	Rec.
Param		F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene			5	2.39	mg/Kg	1	2.00	< 0.00533	120	70 - 130
Toluene			5	2.04	m mg/Kg	1	2.00	< 0.00645	102	70 - 130
Ethylbenzene			5	1.84	$\mathrm{mg/Kg}$	1	2.00	< 0.0116	92	70 - 130
Xylene			5	5.52	mg/Kg	1	6.00	< 0.00874	92	70 - 130

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

Shell Maxwell	15093033 cwell				Pa	ge Nu	umber: Lea	12 of 18 Co, NM					
control spikes continued													
	_		LCSD			Spike	Ma	trix	-	R	ec.	0.00	RPD
Param	F	С	Result	Units	Dil.	Amount	Res	sult	Rec.	Liı	nit	RPD	Limit
			LCSD			Spike	Ma	trix		Re	ec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Res	sult	Rec.	Lii	mit	RPD	Limit
Benzene		5	2.37	mg/Kg	1	2.00	<0.0	0533	118	70 -	130	1	20
Toluene		5	2.03	mg/Kg	1	2.00	< 0.0	0645	102	70 -	130	0	20
Ethylbenzene		5	1.89	mg/Kg	1	2.00	<0.0	0116	94	70 -	130	3	20
Xylene		5	5.57	mg/Kg	1	6.00	< 0.0	0874	93	70 -	130	1	20
Percent recovery is based on the	spike	resi	ilt. RPD	is based	on the	spike and	spike o	luplicat	te res	ult.			
refeeling feedvery is based on the	opine	1000		10 00000		opine and	opino	apnoa					
			LC	CS LC	SD			Spik	e	LCS	LC	SD	Rec.
Surrogate			Res	ult Re	sult	Units	Dil.	Amou	int	Rec.	Re	ec.	Limit
Trifluorotoluene (TFT)			1.9	96   1	90	mø/Kø	1	2.00	)	98	9	5	70 - 130
				_	00		*	2.00	·	00	-	0	
4-Bromofluorobenzene (4-BFB)			1.9	93 1	98	mg/Kg	1	2.00	)	96	9	9	70 - 130
4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 125322 Prep Batch: 106013	CS-1	.)	Date QC	93 1 e Analyze Preparati	98 98 d: 20 on: 20	mg/Kg )15-10-05 )15-10-05	1	2.00	)	96	9 Analy Prepa	9 rzed By red By	70 - 130 77 - 130 77 - 130
4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (I QC Batch: 125322 Prep Batch: 106013	.CS-1	.)	Date QC	e Analyze Preparati	98 98 d: 20 on: 20	mg/Kg )15-10-05 )15-10-05	1 S	2.00 2.00	) M	96 [atrix	9 Analy Prepa	9 zed By red By	70 - 130 77 - 130 77 - 130 72 - 130 72 - 130 72 - 130 72 - 130 72 - 130
4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 125322 Prep Batch: 106013 Param	CS-1	.) F	Date QC C	e Analyze Preparati LCS Result	98 98 d: 20 on: 20 Unit:	mg/Kg 015-10-05 015-10-05 015-10-05	1 S Ar	2.00 2.00	) M R	96 96 latrix esult	9 Analy Prepa Re	9 zed By red By	r: AM r: AM Rec. Limit
4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 125322 Prep Batch: 106013 Param Chloride	/CS-1	) F	Date QC C	e Analyze Preparati LCS Result 2730	d: 20 on: 20 Unit: mg/K	mg/Kg 015-10-05 015-10-05 s Dil. g 5	1 S Ar	2.00 2.00 Spike nount 2500	M R <	96 96 atrix esult 19.2	9 Analy Prepa Re 10	9 zed By red By ec.	r: AM r: AM Rec. Limit 85 - 115
4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 125322 Prep Batch: 106013 Param Chloride Percent recovery is based on the	CS-1	) F rest	Date QC C	e Analyze Preparati LCS Result 2730 is based	$\frac{d:  20}{\text{on:}  20}$	)15-10-05 )15-10-05 )15-10-05 s Dil. g 5 spike and	1 S Ar 2 spike o	2.00 2.00 Spike nount 2500 duplica	M R < te res	96 96 atrix esult 19.2 	9 Analy Prepa Re 10	9 zed By red By ec.	r: AM r: AM r: AM Rec. Limit 85 - 115
4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 125322 Prep Batch: 106013 Param Chloride Percent recovery is based on the	spike	) F rest	Date QC C ult. RPD LCSD	Analyze Preparati LCS Result 2730 is based	d: 20 on: 20 Unit: mg/K on the	$\frac{mg}{Kg}$ $\frac{D15-10-05}{D15-10-05}$ $\frac{s}{g}$ $\frac{Dil.}{g}$ $\frac{5}{spike}$ spike and Spike	1 S Ar Spike o Ma	2.00 2.00 5pike nount 2500 duplica	M R < te res	96 96 atrix esult 19.2 ult. Re	9 Analy Prepa Re 10	9 zed By red By ec.	70 - 130 70 - 130 72 - 130
4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 125322 Prep Batch: 106013 Param Chloride Percent recovery is based on the Param	Spike	) F resu	Date QC C Ilt. RPD LCSD Result	e Analyze Preparati LCS Result 2730 is based Unitş	d: 20 on: 20 Unit: mg/K on the Dil.	$\frac{mg/Kg}{15-10-05}$ $\frac{mg}{15-10-05}$	$\frac{1}{2}$ Spike of Matrix Matrix Matrix 1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (	2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00	M R te res Rec.	96 96 19.2 ult. Re Lin	9 Analy Prepa Re 10 ec.	9 zed By red By ec. 09 RPD	70 - 130 70 - 130 71 - 130 72 - 130

#### Work Order: 15093033 Shell Maxwell

# Matrix Spikes

Matrix Spike (xMS-1) Spiked Sample:

QC Batch:	125260	Date Analyzed:	2015-10-01	Analyzed By:	AK
Prep Batch:	105946	QC Preparation:	2015-09-30	Prepared By:	AK

			MS			Spike	Matrix		Rec.	
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	
C6-C12		5	293	mg/Kg	1	250	$<\!5.66$	117	75 - 125	
>C12-C35		5	252	mg/Kg	1	250	<7.50	101	75 - 125	

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

				MSD			Spike	Matrix		Rec.		RPD
Param		$\mathbf{F}$	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
C6-C12	Qs	Qs	5	335	mg/Kg	1	250	< 5.66	134	75 - 125	13	20
>C12-C35			5	258	$\mathrm{mg/Kg}$	1	250	<7.50	103	75 - 125	2	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	52.6	55.7	mg/Kg	1	50	105	111	70 - 130
n-Octane	44.5	45.6	mg/Kg	1	50	89	91	70 - 130
n-Tricosane	55.4	59.8	mg/Kg	1	50	111	120	70 - 130

#### Matrix Spike (MS-1) Spiked Sample: 405449

Toluene

Xylene

Ethylbenzene

QC Batch: Prep Batch:	125316 105983		I (	Date Analy QC Prepara	A F	Analyzed By: A Prepared By:				
				MS			Spike	Matrix		Rec.
Param		F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene			5	1.82	mg/Kg	1	2.00	< 0.00533	91	70 - 130
Toluene			5	1.72	mg/Kg	1	2.00	< 0.00645	86	70 - 130

mg/Kg

mg/Kg

mg/Kg

1

1

2.00

6.00

< 0.0116

< 0.00874

87

.85

70 - 130

70 - 130

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

5

5

1.74

5.08

Report Date: October 5, 2015 Shell Maxwell	Work Order: 15093033 Shell Maxwell									e Num	ber: 1 Lea (	14 of 18 Co, NM
matrix spikes continued												
mainta spines commanda			MSD			Spike	Matri	x	Ree	с.		RPD
Param	F	С	Result	Units	Dil.	Amount	Resul	t Rec	. Lim	nit F	RPD	Limit
									_			
_	-	~	MSD		DU	Spike	Matri	X	Ree	с. •		RPD
Param	F	C	Result	Units	Dil.	Amount	Resul	t Rec	. Lim	it F	RPD	Limit
Benzene		5	1.89	mg/Kg	1	2.00	< 0.005	33 94	70 - 1	130	4	20
Toluene		5	1.84	mg/Kg	1	2.00	< 0.006	45 92	70 -	130	7	20
Ethylbenzene		õ	1.79	mg/Kg	1	2.00	< 0.01	16 90	70 -	130	3	20
Xylene		5	5.43	Mg	1	6.00	< 0.008	74 90	70 - 1	130	7	20
Percent recovery is based on the	spike	e res	ilt. RPD	is based	on the	spike and	spike dup	plicate re	sult.			
			,	(C) )	(0)			C '1	MC	MOT		D
0				/15 N	ASD	TT-24	D'1	Spike	MS	MSL	)	Rec.
Surrogate			Re	sult R	esult	Units	Dil.	Amount	Rec.	Rec.		Limit
Trifluorotoluene (TFT)			1.	.81 18.	1.76	mg/Kg	1	2	90	88	(	0 - 130
4-Bromofluorobenzene (4-BFB)			1.	.98	1.86	mg/Kg	1	2	99	93		0 - 130
Matrix Spike (MS-1) Spike	ed Sa	mple	e: 405607									
OC Batch: 125322			Dat	e Analyze	od 2	015-10-05			А	nalvze	d Bv	АМ
Prep Batch: 106013			OC	Preparat	ion 2	015-10-05			P	repare	d By:	AM
Tiep Baten. 100010			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ropuru		010 10 00			-	roporo	a 29.	
				MS			Spike	e Ma	atrix			Rec.
Param		F	C I	Result	Units	Dil.	Amou	nt Re	esult	Rec.	1	Limit
Chloride				3320	mg/K	g 5	2500	6	583	105	78.	9 - 121
Percent recovery is based on the	spike	res	ilt RPD	is based	on the	spike and	spike du	olicate re	sult			
receive receivery is bused on the	opin	100		10 50000	011 0110	opino ana	opino au	5110400 10	ouro			
			MSD			Spike	Matrix	2	Rec.			RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limi	t F	RD.	Limit
C'hloride			3420	mg/Kg	5	2500	,583	109	78.9 - 1	121	3	20
Porgont recovery is based on the	mile	rog	JH RPD	is based	on the	spike and	eniko du	licato ro	cult			

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

Work Order: 15093033 Shell Maxwell

# **Calibration Standards**

Standard (CCV-2)

QC Batch:	125260			Date A	nalyzed: 2		Analyzed By: AK		
					CCVs	CCVs	CCVs	Percent	
					True	Found	Percent	Recovery	Date
Param		Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
C6-C12			5	mg/Kg	250	285	114	75 - 125	2015-10-01
>C12-C35			5	mg/Kg	250	234	94	75 - 125	2015-10-01

### Standard (CCV-3)

QC Batch:	125260			Date A	nalyzed: 2	Analyzed By: AK			
					CCVs	CCVs	CCVs	Percent	
					True	Found	Percent	Recovery	Date
Param		Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
C6-C12			5	mg/Kg	250	298	119	75 - 125	2015-10-01
>C12-C35			5	mg/Kg	250	244	98	75 - 125	2015-10-01

### Standard (CCV-2)

QC Batch:	125316			Date An	alyzed: 20	Analyzed By: AK			
					CCVs	CCVs	CCVs	Percent	
					True	Found	Percent	Recovery	Date
Param		Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene			5	mg/kg	0.100	0.114	114	80 - 120	2015-10-05
Toluene			5	mg/kg	0.100	0.0975	98	80 - 120	2015-10-05
Ethylbenzer	ne		5	mg/kg	0.100	0.0919	92	80 - 120	2015-10-05
Xylene			5	mg/kg	0.300	0.267	89	80 - 120	2015-10-05

Standard (CCV-3)

QC Batch: 125316

Date Analyzed: 2015-10-05

Analyzed By: AK

Report Date: Octob Shell Maxwell	per 5, 2015		W	/ork Order: Shell Ma	Page Number: 16 of 18 Lea Co, NM			
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		ō	mg/kg	0.100	0.114	114	80 - 120	2015-10-05
Toluene		5	mg/kg	0.100	0.0988	99	80 - 120	2015-10-05
Ethylbenzene		ŏ	mg/kg	0.100	0.0904	90	80 - 120	2015-10-05
Xylene		5	mg/kg	0.300	0.266	89	80 - 120	2015-10-05

### Standard (ICV-1)

QC Batch:	125322			Date A	analyzed:	2015-10-05		Analyz	zed By: AM
					ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	1	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride				mg/Kg	100	98.0	98	85 - 115	2015-10-05

### Standard (CCV-1)

QC Batch:	125322			Date A	analyzed:	2015-10-05		Analy	zed By: AM
					CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	I	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride				mg/Kg	100	102	102	85 - 115	2015-10-05

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# Appendix

# **Report Definitions**

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

## Laboratory Certifications

	Certifying	Certification	Laboratory
С	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	L-A-B	L2418	Lubbock
<b>2</b>	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-15-11	Lubbock
5	NELAP	T104704392-14-8	Midland
6		2014-018	Lubbock

# Standard Flags

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

Work Order: 15093033 Shell Maxwell Page Number: 18 of 18 Lea Co, NM

### F Description

Qsr Surrogate recovery outside of laboratory limits. U The analyte is not detected above the SDL

## Attachments

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

LAB Order I	#150930	33																		1				-		1	Pag	e			of_			
TraceAnalysis, Inc. email: lab@traceanalysis.com			670	6701 Aberdeen Avenue, Suite 9         5002 Basin Street, Suite A1           Lubbock, Texas 79424         Midland, Texas 79703           Tel (806) 794-1296         Tel (432) 689-6301           Fax (806) 794-1298         Fax (432) 689-6313           1 (800) 378-1296         Fax (432) 689-6313							20	200 East Sunset Rd., Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443								BioAquatic Testing 2501 Mayes Rd., Ste 100 Carroliton, Texas 75006 Tel (972) 242-7750						Brandon & Clark 3403 Industrial Bivd. Hobbs, NM 88240 Tel (575) 392-7561 Fax (575) 392-4508								
Company Name: Resolute Energy					Phone #: 432-813-8069										•			ANALYSIS REQUEST																
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