District I 1625 N. French Dr., Hobbs, NM 88240 District II 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

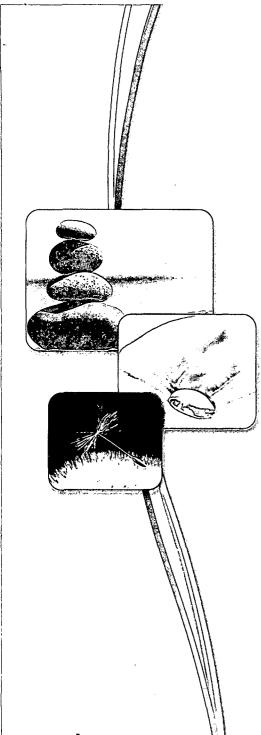
Revised August 8, 2011

Form C-141

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	ation	and Co	rrective A	ction	1	· ·		<del>-</del>		
						<b>OPERA</b> T	TOR		☐ Initia	l Report		Final Report		
		RP Production		any, LLC			ndy L. Madison							
Address 30 Facility Nar		t., Raton, NM	1 87740			Telephone No. Office 575-445-6706 Cell 575-420-1120 Facility Type: Gas Well								
						часниу гур	e: Gas well							
Surface Ow	ner Verme	ejo Park Rand	<u>h</u>	Mineral O	wner A	PR Product	ion Company, I	LLC	API No	. 30-007-2	0277			
				LOCA	TION	OF REI	LEASE							
Unit Letter E	Section 26	Township 31N	Range 17E	Feet from the 2,630		rth/South Line   Feet from the   East/West Line   Count   North   1265.44   West   Colfa								
			Latitu	ude _N 36.8926		_	_	56						
CD_1		1 117		<u>NAT</u>	<u>URE</u>	OF RELI				<del></del>				
Type of Rele		Stuffing Box		<del></del>		<del></del>	Release 8 Barrels			ecovered : 0 Hour of Disc		<u></u>		
						Unknown			8/14/14 @		- Covery			
Was Immedia	ate Notice (		Yes [	No Not Re	quired	If YES, To Daniel San								
By Whom? R							lour: 8/14/14 @ 1							
Was a Water	course Read		Yes 🗵	1 No.		If YES, Vo	lume Impacting t	the Wat	ercourse.					
10 11/14	T								OIL CO	ONS. DIV	DIST.	3		
ii a watercot	irse was iii	pacted, Descri	be Fully.	,										
									U	CT <b>29</b> 21	U 14			
		em and Remediking on the w		n Taken.* ue to loose packin	gs. The	packings we	re tightened and l	lubricat	ed. The spill	did not leav	e the w	ell pad.		
The area will	be monitor	and Cleanup Ared for staining oil Characterize	g and vege	ken.* etation kill. Soil C	Character	ization was o	done and no rema	rkable o	quantities w	ere found. N	No reme	diation is		
regulations a public health should their or or the environ	Il operators or the envi operations h nment. In a	are required to ronment. The nave failed to a	report ar acceptant dequately CD accep	e is true and comp nd/or file certain r ce of a C-141 repo investigate and ro otance of a C-141	elease no ort by the emediate	otifications a NMOCD m contaminati	nd perform correct arked as "Final R on that pose a thr e the operator of	etive act eport" of eat to g respons	ions for rele does not reli round water ibility for co	eases which in eve the oper in surface was perpendicular was perpendicular was a second control of the control	may end ator of I ter, hum with any	langer iability ian health		
							OIL CON	<u>SERV</u>	ATION	<u>DIVISIO</u>	<u> </u>	1/4		
Signature:	Randy	J.An	des	-		Approved by Environmental Specialist:								
Printed Name	e: Randy L.	Madison		<u></u>										
Title: EHS S	Specialist					Approval Da	te: 11/4/14	,	Expiration l	Date:				
E-mail Addre	ess: rmadis	son@atlasener	gy.com			Conditions of Approval:				Attached				
	10/23/14			Phone: 575-445-6										
Attach Addi	tional She	ets If Necess	ary		+	thus 1	436837	17	1	/		\		



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-60687-1

Client Project/Site: Soil Hydrocarbon Characterization

For: Atlas Energy 309 Silver Street Raton, New Mexico 87740

Attn: Mr. Randy Madison

Diter R. Bindel

Authorized for release by: 10/15/2014 10:32:02 AM

DiLea Bindel, Project Manager I (303)736-0173 dilea.bindel@testamericainc.com

······ Links ······

Review your project results through

Total Access

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

# **Table of Contents**

Cover Page	1
able of Contents	
Case Narrative	3
Definitions	
Detection Summary	5
Method Summary	
Sample Summary	7
Client Sample Résults	
QC Sample Results	
QC Association	
Chronicle	
Receipt Checklists	
Chain of Custody	

#### **Case Narrative**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Job ID: 280-60687-1

Laboratory: TestAmerica Denver

Narrative

#### **CASE NARRATIVE**

Client: Atlas Energy

Project: Soil Hydrocarbon Characterization Report Number: 280-60687-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### RECEIPT

The samples were received on 10/02/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 5.9 C.

#### **GASOLINE RANGE ORGANICS (GRO) - METHOD 8015C**

Gasoline Range Organics (GRO)-C6-C10 was detected in method blank MB 280-247591/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Surrogate a,a,a-Trifluorotoluene was recovered above the QC control limits in sample D-67.1-6 (280-60687-3. This anomaly is due to obvious matrix interferences; therefore, corrective action is deemed unnecessary. Sample data should be considered biased high.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with prep batch 280-247618. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **VOLATILE ORGANIC COMPOUNDS (GC) - METHOD 8021B**

Benzene was detected in method blank MB 280-247593/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **DIESEL RANGE ORGANICS - METHOD 8015C**

Matrix spikes were not requested and therefore, were not reported. The acceptable LCS analyte recoveries provide evidence that the laboratory is performing the method within acceptable guidelines.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **GENERAL CHEMISTRY**

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# **Definitions/Glossary**

Client: Atlas Energy Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Qualifier	Qualifiers	
Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  Surrogate is outside control limits  General Chemistry  Qualifier Qualifier Description  Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  GIOSSARY  Abbreviation These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis  Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  GIOSSARY  Abbreviation These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis  Result is reported on a dry weight basis  Column Contains Free Liquid  Contains an Free Liquid  Contains an Free Liquid  DER Duplicate error ratio (normalized absolute difference)  DII Fac Dulution Factor  DII Fac Dulution Factor  DID, RA, RE, IN Indicates a Dulution, Re-analysis, Re-extraction, or additional initial metals/anion analysis of the sample  DLC Decision level concentration  MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NO Not detected at the reporting limit (or MDL or EDL if shown)  POLL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	GC VOA	
Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  Surrogate is outside control limits  General Chemistry  Qualifier Description  Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  Glossary  Abbreviation  These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis  Percent Recovery  CFL Contains Fee Liquid  CNF Contains no Free Liquid  DER Duplicate error ratio (normalized absolute difference)  Dil Fac Dilution Factor  DiL RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional initial metals/anion analysis of the sample  DCC Decision level concentration  MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum devel (Dioxin)  Not Calculated  ND Not Calculated  ND Not Calculated  ND Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQC Quality Control  RER Relative error ratio  Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	Qualifier	Qualifier Description
General Chemistry  Qualifier Qualifier Description  Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  Glossary  Abbreviation These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis  Percent Recovery  CPL Contains Free Liquid  CNF Contains no Free Liquid  CNF Contains no Free Liquid  DIFAC Dilution Factor  DI, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample  DLC Decision level concentration  MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  MDC Minimum Level (Dioxin)  Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  POL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RER Relative error ratio  RePD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	В	Compound was found in the blank and sample.
General Chemistry Qualifier Qualifier Description  Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  Glossary  Abbreviation These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis  Percent Recovery  CFL Contains no Free Liquid  CNF Contains no Free Liquid  CNF Duplicate error ratio (normalized absolute difference)  Dil Fac Dilution Factor  DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample  DLC Decision level concentration  MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  REPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Qualifier Qualifier Description Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  Glossary  These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis Percent Recovery CPL Contains Free Liquid CNF Contains no Free Liquid DER Duplicate error ratio (normalized absolute difference) Dil Fac Dillution Factor DL, RA, RE, IN Indicates a Dillution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration MDL Method Detection Limit ML Minimum devel (Dioxin) NC Not Calculated ND Not detected at the reporting limit (or MDL or EDL if shown) POL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RRD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	X	Surrogate is outside control limits
Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  Glossary  Abbreviation These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis Percent Recovery CFL Contains Free Liquid CNF Contains no Free Liquid DER Duplicate error ratio (normalized absolute difference) Dill Fac Dilution Factor DI, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated ND Not detected at the reporting limit (or MDL or EDL if shown) POL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RRD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	General Chen	nistry
Abbreviation These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis PER Percent Recovery CFL Contains no Free Liquid DER Duplicate error ratio (normalized absolute difference) DIL Fac Dilution Factor DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated NDN Not detected at the reporting limit (or MDL or EDL if shown) PQL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RRDD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	Qualifier	Qualifier Description
Abbreviation These commonly used abbreviations may or may not be present in this report.  Listed under the "D" column to designate that the result is reported on a dry weight basis  Recent Recovery CFL Contains Free Liquid CNF Contains no Free Liquid CNF Duplicate error ratio (normalized absolute difference) Dill Fac Dilution Factor DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated ND Not detected at the reporting limit (or MDL or EDL if shown) PQL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RPD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Listed under the "D" column to designate that the result is reported on a dry weight basis  %R Percent Recovery  CFL Contains Free Liquid  DER Duplicate error ratio (normalized absolute difference)  DI Fac Dilution Factor  DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample  DLC Decision level concentration  MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Precent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	Glossary	
Percent Recovery CFL Contains Free Liquid CNF Contains no Free Liquid DER Duplicate error ratio (normalized absolute difference) Dil Fac Dilution Factor DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated ND Not detected at the reporting limit (or MDL or EDL if shown) PQL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RPD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	Abbreviation	These commonly used abbreviations may or may not be present in this report.
CFL Contains Free Liquid  CNF Contains no Free Liquid  DER Duplicate error ratio (normalized absolute difference)  Dil Fac Dil Jibrion Factor  DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample  DLC Decision level concentration  MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	<u> </u>	Listed under the "D" column to designate that the result is reported on a dry weight basis
CORF Contains no Free Liquid  DER Duplicate error ratio (normalized absolute difference)  Dil Fac Dilution Factor  DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample  DLC Decision level concentration  MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	%R	Percent Recovery
DER Duplicate error ratio (normalized absolute difference) Dil Fac Dilution Factor DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated ND Not detected at the reporting limit (or MDL or EDL if shown) PQL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RPD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	CFL	Contains Free Liquid
DIL Fac Dilution Factor DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated ND Not detected at the reporting limit (or MDL or EDL if shown) PQL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RPD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	CNF	Contains no Free Liquid
DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision level concentration MDA Minimum detectable activity  EDL Estimated Detection Limit MDC Minimum detectable concentration MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated ND Not detected at the reporting limit (or MDL or EDL if shown) PQL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RPD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	DER	Duplicate error ratio (normalized absolute difference)
DLC Decision level concentration MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	Dil Fac	Dilution Factor
MDA Minimum detectable activity  EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL Estimated Detection Limit  MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	DLC	Decision level concentration
MDC Minimum detectable concentration  MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	MDA	Minimum detectable activity
MDL Method Detection Limit  ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	EDL	Estimated Detection Limit
ML Minimum Level (Dioxin)  NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	MDC	Minimum detectable concentration
NC Not Calculated  ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	MDL	Method Detection Limit
ND Not detected at the reporting limit (or MDL or EDL if shown)  PQL Practical Quantitation Limit  QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	ML	Minimum Level (Dioxin)
PQL Practical Quantitation Limit QC Quality Control RER Relative error ratio RL Reporting Limit or Requested Limit (Radiochemistry) RPD Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin)	NC	Not Calculated
QC Quality Control  RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	ND	Not detected at the reporting limit (or MDL or EDL if shown)
RER Relative error ratio  RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	PQL	Practical Quantitation Limit
RL Reporting Limit or Requested Limit (Radiochemistry)  RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	QC	Quality Control
RPD Relative Percent Difference, a measure of the relative difference between two points  TEF Toxicity Equivalent Factor (Dioxin)	RER	Relative error ratio
TEF Toxicity Equivalent Factor (Dioxin)	RL	Reporting Limit or Requested Limit (Radiochemistry)
	RPD	Relative Percent Difference, a measure of the relative difference between two points
TEQ Toxicity Equivalent Quotient (Dioxin)	TEF	Toxicity Equivalent Factor (Dioxin)
	TEQ	Toxicity Equivalent Quotient (Dioxin)

# **Detection Summary**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Client Sample ID: A-575.1-6					Lab Sample ID: 280-60687-				
– Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type	
Gasoline Range Organics (GRO) -C6-C10	1.1	В	0.95	0.26	mg/Kg	1	8015C	Total/NA	
Diesel Range Organics [C10-C28]	6.2		3.9	0.66	mg/Kg	1	8015C	Total/NA `	
Chloride	8.5	J	29	1.9	mg/Kg	1	9056	Soluble	

					Lab Sample ID: 280-60687-2				
Result	Qualifier	RL	MDL	Unit	Dil Fac	D I	Viethod	Prep Type	
1.7	В	1.0	0.27	mg/Kg		- 8	3015C	Total/NA	
12	J	49	5.9	ug/Kg	1		3021B	Total/NA	
28		3.9	0.66	mg/Kg	1	8	3015C	Total/NA	
700		29	1.9	mg/Kg	1	ę	9056	Soluble	
	1.7 12 28		1.7 B 1.0  12 J 49 28 3.9	1.7 B 1.0 0.27 12 J 49 5.9 28 3.9 0.66	1.7 B 1.0 0.27 mg/Kg  12 J 49 5.9 ug/Kg  28 3.9 0.66 mg/Kg	Result         Qualifier         RL         MDL         Unit         Dil Fac           1.7         B         1.0         0.27         mg/Kg         1           12         J         49         5.9         ug/Kg         1           28         3.9         0.66         mg/Kg         1	Result         Qualifier         RL         MDL         Unit         Dil Fac         D         I           1.7         B         1.0         0.27         mg/Kg         1         8           12         J         49         5.9 ug/Kg         1         8           28         3.9         0.66 mg/Kg         1         8	Result         Qualifier         RL         MDL mit         Dil Fac mg/Kg         D method           1.7         B         1.0         0.27 mg/Kg         1         8015C           12         J         49         5.9 ug/Kg         1         8021B           28         3.9         0.66 mg/Kg         1         8015C	

Client Sample ID: D-67.1-6							Lab Sample ID: 280-60					
 Analyte	Result	Qualifier	RL .	MDL	Unit	Dil Fac	D	Method	Prep Type			
Gasoline Range Organics (GRO)	4.9	В	0.98	0.26	mg/Kg		_	8015C	Total/NA			
-C6-C10												
Diesel Range Organics [C10-C28]	13		3.9	0.66	mg/Kg	1		8015C	Total/NA			
Chloride	38		28	1.9	mg/Kg	1		9056	Soluble			

# **Method Summary**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Method	Method Description	Protocol	Laboratory
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL DEN
8021B	Volatile Organic Compounds (GC)	SW846	TAL DEN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL DEN
9056	Chloride	SW846	TAL DEN

#### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

# **Sample Summary**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-60687-1	A-575.1-6	Solid	10/01/14 09:55	10/02/14 09:20
280-60687-2	B-26.1-6	Solid	10/01/14 09:56	10/02/14 09:20
280-60687-3	D-67.1-6	Solid	10/01/14 09:57	10/02/14 09:20

# **Client Sample Results**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Client Sample ID: A-575.1-6  Date Collected: 10/01/14 09:55  Date Received: 10/02/14 09:20							Lab S	Sample ID: 280- Matri	60687-1 x: Solid
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	1.1	В	0.95	0.26	mg/Kg		10/01/14 09:55	10/13/14 15:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		77 - 123				10/01/14 09:55	10/13/14 15:46	1
Client Sample ID: B-26.1-6							Lab S	Sample ID: 280-	60687-2
Date Collected: 10/01/14 09:56								Matri	x: Solid
Date Received: 10/02/14 09:20 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	1.7	В	1.0	0.27	mg/Kg		10/01/14 09:56	10/13/14 16:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		77 - 123				10/01/14 09:56	10/13/14 16:19	1
- Client Sample ID: D-67.1-6							Lab S	Sample ID: 280-	60687-3
Date Collected: 10/01/14 09:57								Matri	x: Solid
Date Received: 10/02/14 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	4.9	В	0.98	0.26	mg/Kg		10/01/14 09:57	10/13/14 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	135	X	77 - 123				10/01/14 09:57	10/13/14 16:51	1

#### Method: 8021B - Volatile Organic Compounds (GC)

Client Sample ID: B-26.1-6

Client Sample ID: A-575.1-6 Date Collected: 10/01/14 09:55							Lab Sample ID: 280-60687-1 Matrix: Solid				
Date Received: 10/02/14 09:20 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Benzene	ND		50	7.0	ug/Kg		10/13/14 11:43	10/13/14 17:36	1		
Ethylbenzene	ND		50	7.5	ug/Kg		10/13/14 11:43	10/13/14 17:36	1		
Toluene	ND		50	8.8	ug/Kg		10/13/14 11:43	10/13/14 17:36	1		
m-Xylene & p-Xylene	ND		50	6.1	ug/Kg		10/13/14 11:43	10/13/14 17:36	1		
o-Xylene	ND		50	3.3	ug/Kg		10/13/14 11:43	10/13/14 17:36	1		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
a,a,a-Trifluorotoluene	94		82 - 115				10/13/14 11:43	10/13/14 17:36	1		

Date Collected: 10/01/14 09:56								Matri	x: Solid
Date Received: 10/02/14 09:20 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		49	6.8	ug/Kg		10/13/14 11:43	10/13/14 19:04	1
Ethylbenzene	ND		49	7.3	ug/Kg		10/13/14 11:43	10/13/14 19:04	1
Toluene	ND		49	8.6	ug/Kg		10/13/14 11:43	10/13/14 19:04	1
m-Xylene & p-Xylene	12	J	49	5.9	ug/Kg		10/13/14 11:43	10/13/14 19:04	1
o-Xylene	ND		49	3.2	ug/Kg		10/13/14 11:43	10/13/14 19:04	1

TestAmerica Denver

Lab Sample ID: 280-60687-2

# **Client Sample Results**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
a,a,a-Trifluorotoluene	91		82 - 115				10/13/14 11:43	10/13/14 19:04	
Client Sample ID: D-67.1-6							l ah S	Sample ID: 280-	.cnc27_1
Date Collected: 10/01/14 09:57							Lab	-	x: Solic
Date Received: 10/02/14 09:20								101411	x. com
Analyte	Result	Qualifier	RL	MDL	Unit	а	Prepared	Analyzed	Dil Fa
Benzene	ND		50	7.0	ug/Kg		10/13/14 11:43	10/13/14 19:34	
Ethylbenzene	ND		50	7.5	ug/Kg		10/13/14 11:43	10/13/14 19:34	
Toluene	ND		50	8.8	ug/Kg		10/13/14 11:43	10/13/14 19:34	
m-Xylene & p-Xylene	ND		50	6.1	ug/Kg		10/13/14 11:43	10/13/14 19:34	
o-Xylene	ND		50	3.3	ug/Kg		10/13/14 11:43	10/13/14 19:34	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
a,a,a-Trifluorotoluene	90		82 - 115				10/13/14 11:43	10/13/14 19:34	
lethod: 8015C - Nonhalogen	ated Organ	ics using	GC/FID -Mod	dified (E	Diesel Ra	ange (	Organics)		
Client Sample ID: A-575.1-6							Lab S	Sample ID: 280-	60687-
Date Collected: 10/01/14 09:55								Matri	x: Soli
Date Received: 10/02/14 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Diesel Range Organics [C10-C28]	6.2		3.9	0.66	mg/Kg		10/06/14 18:30	10/09/14 13:27	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
o-Terphenyl (Surr)	68		49 - 115				10/06/14 18:30	10/09/14 13:27	
Client Sample ID: B-26.1-6							Lab S	Sample ID: 280-	60687-2
Date Collected: 10/01/14 09:56								=	x: Soli
Date Received: 10/02/14 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Diesel Range Organics [C10-C28]	28		3.9	0.66	mg/Kg		10/06/14 18:30	10/09/14 13:03	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
o-Terphenyl (Surr)	63		49 - 115				10/06/14 18:30	10/09/14 13:03	
Client Sample ID: D-67.1-6							l ah S	Sample ID: 280-	60687 <sub>-</sub> ′
Oliciit Gallible ID. D-07.1-0							Lab		x: Solic
•									x. Join
Date Collected: 10/01/14 09:57								*******	
Date Collected: 10/01/14 09:57 Date Received: 10/02/14 09:20	Result	Qualifier	RL	MDL	Unit	D	Prepared		Dil Fa
Date Collected: 10/01/14 09:57	Result 13	Qualifier	RL 3.9		Unit mg/Kg	D	Prepared 10/06/14 18:30	Analyzed 10/09/14 12:39	
Date Collected: 10/01/14 09:57 Date Received: 10/02/14 09:20 Analyte						D		Analyzed	
Date Collected: 10/01/14 09:57 Date Received: 10/02/14 09:20 Analyte Diesel Range Organics [C10-C28]	13		3.9			D	10/06/14 18:30	Analyzed 10/09/14 12:39	Dil Fa
Date Collected: 10/01/14 09:57 Date Received: 10/02/14 09:20 Analyte Diesel Range Organics [C10-C28] Surrogate	13 %Recovery		3.9			<u>D</u>	10/06/14 18:30  Prepared	Analyzed 10/09/14 12:39  Analyzed	Dil Fa
Date Collected: 10/01/14 09:57 Date Received: 10/02/14 09:20 Analyte Diesel Range Organics [C10-C28] Surrogate o-Terphenyl (Surr) General Chemistry - Soluble Client Sample ID: A-575.1-6	13 %Recovery		3.9			<u>D</u>	10/06/14 18:30  Prepared  10/06/14 18:30	Analyzed 10/09/14 12:39  Analyzed 10/09/14 12:39  Sample ID: 280-	<i>Dil Fa</i>
Date Collected: 10/01/14 09:57 Date Received: 10/02/14 09:20 Analyte Diesel Range Organics [C10-C28]  Surrogate o-Terphenyl (Surr) General Chemistry - Soluble Client Sample ID: A-575.1-6 Date Collected: 10/01/14 09:55	13 %Recovery		3.9			<u>D</u>	10/06/14 18:30  Prepared  10/06/14 18:30	Analyzed 10/09/14 12:39  Analyzed 10/09/14 12:39  Sample ID: 280-	Dil Fa
Date Collected: 10/01/14 09:57 Date Received: 10/02/14 09:20 Analyte Diesel Range Organics [C10-C28] Surrogate o-Terphenyl (Surr) General Chemistry - Soluble Client Sample ID: A-575.1-6	%Recovery 56		3.9	0,66		D	10/06/14 18:30  Prepared  10/06/14 18:30	Analyzed 10/09/14 12:39  Analyzed 10/09/14 12:39  Sample ID: 280-	Dil Fac

# **Client Sample Results**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

General	Chemistry	y - Soluble
---------	-----------	-------------

Client Sample ID: B-26.1-6

Date Collected: 10/01/14 09:56

Lab Sample ID: 280-60687-2

Matrix: Solid

Date Received: 10/02/14 09:20

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Chloride
 700
 29
 1.9 mg/Kg
 10/08/14 19:16
 1

Client Sample ID: D-67.1-6 Lab Sample ID: 280-60687-3

Date Collected: 10/01/14 09:57 Matrix: Solid

Date Received: 10/02/14 09:20

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Chloride
 38
 28
 1.9 mg/Kg
 10/08/14 19:34
 1

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Client Sample ID: Method Blank

#### Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-247591/1-A

Matrix: Solid

Analysis Batch: 247618

MR MB

Analyte Gasoline Range Organics (GRO)

Result Qualifier 0.547

RL 1.2

MDL Unit 0.33 mg/Kg

Prepared 10/13/14 11:39

10/13/14 14:09

Analyzed

Prep Type: Total/NA

Prep Batch: 247591

Prep Type: Total/NA

**Prep Batch: 247591** 

Dil Fac

-C6-C10

MR MB

Surrogate a,a,a-Trifluorotoluene %Recovery Qualifier Limits 95 77 - 123

Prepared 10/13/14 11:39

Analyzed 10/13/14 14:09

Dil Fac

Lab Sample ID: LCS 280-247591/2-A

Matrix: Solid

Analysis Batch: 247618

Gasoline Range Organics (GRO)

Lab Sample ID: LCSD 280-247591/3-A

Spike Added

LCS LCS Result Qualifier

LCSD LCSD

6.51

Result Qualifier

6.37

Unit

Unit

mg/Kg

mg/Kg

%Rec 116

%Rec

10/13/14 11:43

118

Limits 85 \_ 153

Client Sample ID: Lab Control Sample

%Rec.

-C6-C10

Analyte

LCS LCS

Surrogate a,a,a-Trifluorotoluene %Recovery Qualifier 93

Limits 77 - 123

Spike

Added

5.50

5.50

Client Sample ID: Lab Control Sample Dup

85 - 153

Prep Type: Total/NA

Prep Batch: 247591

%Rec. **RPD** Limits **RPD** Limit

Gasoline Range Organics (GRO)

Analysis Batch: 247618

-C6-C10

Analyte

Matrix: Solid

LCSD LCSD

Surrogate a,a,a-Trifluorotoluene %Recovery Qualifier 95

98

Limits 77 - 123

#### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 280-247593/1-A

Matrix: Solid

a,a,a-Trifluorotoluene

Analysis Batch: 247638

Client Sample ID: Method Blank Prep Type: Total/NA

10/13/14 16:08

Prep Batch: 247593

J		MB	MR							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	7.50	J	50	7.0	ug/Kg		10/13/14 11:43	10/13/14 16:08	1
ĺ	Ethylbenzene	ND		50	7.5	ug/Kg		10/13/14 11:43	10/13/14 16:08	1
	Toluene	ND		50	8.8	ug/Kg		10/13/14 11:43	10/13/14 16:08	1
	m-Xylene & p-Xylene	ND		50	6.1	ug/Kg		10/13/14 11:43	10/13/14 16:08	1
	o-Xylene	ND		50	3.3	ug/Kg		10/13/14 11:43	10/13/14 16:08	1
		MB	мв							
	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

82 - 115

#### **QC Sample Results**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 280-247 Matrix: Solid Analysis Batch: 247638	7593/2-A		Spike	LCS	LCS		Client	: Sample		trol Sample e: Total/NA tch: 247593
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene			1000	1130	<del></del> -	ug/Kg		113	85 - 115	<del></del>
Ethylbenzene			1000	1070		ug/Kg		107	85 _ 115	
Toluene			1000	1080		ug/Kg		108	85 - 115	
m-Xylene & p-Xylene			2000	2160		ug/Kg		108	85 - 115	
o-Xylene			1000	1090		ug/Kg		109	85 - 115	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
a,a,a-Trifluorotoluene	101		82 - 115							

Lab Sample ID: LCSD 280-247593/3-A Client Sample ID: Lab Control Sample Dup Matrix: Solid Prep Type: Total/NA Analysis Batch: 247638 Prep Batch: 247593 Spike LCSD LCSD RPD %Rec. Analyte Added Limit Result Qualifier Unit %Rec Limits Benzene 1000 1060 106 85 - 115 15 ug/Kg 6 Ethylbenzene 1000 1020 ug/Kg 102 85 - 115 6 17 Toluene 1000 1020 ug/Kg 102 85 \_ 115 6 15 m-Xylene & p-Xylene 2000 2050 ug/Kg 103 85 - 115 15 1000 1030 85 - 115 o-Xylene ug/Kg 103 15 LCSD LCSD %Recovery Qualifier I imits Surrogate a,a,a-Trifluorotoluene 96 82 - 115

Lab Sample ID: 280-60687-1 MS Client Sample ID: A-575.1-6 Matrix: Solid Prep Type: Total/NA **Prep Batch: 247593** Analysis Batch: 247638

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	ND		977	1010		ug/Kg		104	85 - 115	
Ethylbenzene	ND		977	972		ug/Kg		99	85 _ 115	
Toluene	ND		977	981		ug/Kg		100	85 - 115	
m-Xylene & p-Xylene	8.7		1950	1950		ug/Kg		100	85 _ 115	
o-Xylene	ND		977	981		ug/Kg		100	85 _ 115	
	мѕ	MS								
Surrogate	%Recovery	Qualifier	Limits							
a,a,a-Trifluorotoluene	93		82 - 115							

Lab Sample ID: 280-60687-1 MSD Client Sample ID: A-575.1-6 Matrix: Solid Prep Type: Total/NA

Prep Batch: 247593 Analysis Batch: 247638 Spike MSD MSD %Rec. **RPD** Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene ND 993 1020 ug/Kg 103 85 - 115 15 85 - 115 17 ND 993 983 ug/Kg 99 Ethylbenzene 85 - 115 Toluene ND 993 987 ug/Kg 99 15 1990 1970 99 85 \_ 115 15 8.7 ug/Kg m-Xylene & p-Xylene ND 993 993 ug/Kg 100 85 - 115 15 o-Xylene

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Client Sample ID: A-575.1-6

Prep Type: Total/NA

Prep Batch: 247593

Prep Type: Total/NA

Prep Batch: 246421

Prep Type: Total/NA

Prep Batch: 246421

Prep Type: Total/NA

Prep Type: Soluble

Dil Fac

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

92

Lab Sample ID: 280-60687-1 MSD

Matrix: Solid

Analysis Batch: 247638

MSD MSD Surrogate %Recovery

Qualifier Limits

a,a,a-Trifluorotoluene

82 - 115

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-246421/1-A

Matrix: Solid

Analysis Batch: 246910

MB MB

MB MB

Qualifier

Analyte Result

Diesel Range Organics [C10-C28] ND

o-Terphenyl (Surr)

%Recovery Surrogate 75

Spike

Added

64.1

Qualifier

49 - 115

I imits

RL

3.7

MDL Unit

mg/Kg

0.62

LCS LCS

MRL MRL

2.49

Result Qualifier

59.4

Result Qualifier

Prepared

Unit

Unit

mg/L

mg/Kg

10/06/14 18:30

%Rec

93

Prepared

10/06/14 18:30

Analyzed 10/09/14 10:37

Client Sample ID: Lab Control Sample

%Rec.

Limits

53 - 115

Client Sample ID: Lab Control Sample

%Rec.

Limits

50 - 150

Client Sample ID: Method Blank

Analyzed

10/08/14 18:41

Client Sample ID: Method Blank

Analyzed

10/09/14 10:37

Dil Fac

Dil Fac

Lab Sample ID: LCS 280-246421/2-A

Matrix: Solid

Analysis Batch: 246910

Analyte Diesel Range Organics

[C10-C28]

Surrogate o-Terphenyl (Surr) LCS LCS

%Recovery Qualifier

74

MB MB

ND

Result Qualifier

Limits 49 - 115

Spike

Added

2.50

Spike

Added

1000

Method: 9056 - Chloride

Lab Sample ID: MRL 280-246865/3

Matrix: Solid

Analysis Batch: 246865

Chloride

Analyte

Lab Sample ID: MB 280-246967/3-A

Matrix: Solid

Analysis Batch: 246865

Analyte Chloride

Lab Sample ID: LCS 280-246967/1-A Matrix: Solid

Analysis Batch: 246865

Analyte

Chloride

LCS LCS

Result

Qualifier 969

MDL Unit

2.0 mg/Kg

> Unit mg/Kg

D

%Rec

Prepared

99

%Rec 97

Limits 90 - 110

%Rec.

Client Sample ID: Lab Control Sample

TestAmerica Denver

Prep Type: Soluble

RL

30

# **QC Sample Results**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

Lab Sample ID: LCSD 280-246967/2- <i>I</i> Matrix: Solid	A					Clier	nt Sam	ple ID: I	Lab Contro Prep	l Sample Type: So	-
Analysis Batch: 246865			Cmiles.	LCCD	1.000				0/ <b>D</b> = =		RPD
8			Spike Added	LCSD		11	_	9/ <b>D</b> = =	%Rec.	BBB	Limit
Analyte				967	Qualifier	Unit	D	%Rec	Limits	RPD	10
Chloride			1000	967		mg/Kg		97	90 _ 110	0	10
_ab Sample ID: 280-60687-3 MS								C	lient Samp	le ID: D-	67.1-6
Matrix: Solid									Prep	Type: So	oluble
Analysis Batch: 246865											
•	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	а	%Rec	Limits		
Chloride	38		240	261		mg/Kg		93	80 - 120		
Lab Sample ID: 280-60687-3 MSD								CI	ient Samp	le ID: D-	67.1-6
Matrix: Solid									Prep	Type: So	oluble
Analysis Batch: 246865									•	• •	
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	38		240	260		mg/Kg		93	80 - 120	0	20
Lab Sample ID: 280-60687-3 DU								С	lient Samp	le ID: D-	67.1-6
Matrix: Solid									Prep	Type: So	oluble
Analysis Batch: 246865									•	- •	
	Sample	Sample		DU	DU						RPD
Analyte	Result	Qualifier		Result	Qualifier	Unit	D			RPD	Limit
Chloride	38			37.7		mg/Kg				0.1	10

# **QC Association Summary**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

#### GC VOA

Prep	Batch:	247591
------	--------	--------

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-60687-1	A-575.1-6	Total/NA	Solid	5035	
280-60687-2	B-26.1-6	Total/NA	Solid	5035	
280-60687-3	D-67.1-6	Total/NA	Solid	5035	
LCS 280-247591/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 280-247591/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 280-247591/1-A	Method Blank	Total/NA	Solid	5035	

#### Prep Batch: 247593

Lab Sample ID Client Sample ID Prep Type Matrix	Method	Prep Batch
280-60687-1 A-575.1-6 Total/NA Solid	5030B	
280-60687-1 MS A-575.1-6 Total/NA Solid	5030B	Г
280-60687-1 MSD A-575.1-6 Total/NA Solid	5030B	
280-60687-2 B-26.1-6 Total/NA Solid	5030B	٠, .
280-60687-3 D-67.1-6 Total/NA Solid	5030B	
LCS 280-247593/2-A Lab Control Sample Total/NA Solid	5030B	
LCSD 280-247593/3-A Lab Control Sample Dup Total/NA Solid	5030B	3
MB 280-247593/1-A Method Blank Total/NA Solid	5030B	

#### Analysis Batch: 247618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-60687-1	A-575.1-6	Total/NA	Solid	8015C	247591
280-60687-2	B-26.1-6	Total/NA	Solid	8015C	247591
280-60687-3	D-67.1-6	Total/NA	Solid	8015C	247591
LCS 280-247591/2-A	Lab Control Sample	Total/NA	Solid	8015C	247591
LCSD 280-247591/3-A	Lab Control Sample Dup	Total/NA	Solid	8015C	247591
MB 280-247591/1-A	Method Blank	Total/NA	Solid	8015C	247591

#### Analysis Batch: 247638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-60687-1	A-575.1-6	Total/NA	Solid	8021B	247593
280-60687-1 MS	A-575.1-6	Total/NA	Solid	8021B	247593
280-60687-1 MSD	A-575.1-6	Total/NA	Solid	8021B	247593
280-60687-2	B-26.1-6	Total/NA	Solid	8021B	247593
280-60687-3	D-67.1-6	Total/NA	Solid	8021B	247593
LCS 280-247593/2-A	Lab Control Sample	Total/NA	Solid	8021B	247593
LCSD 280-247593/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	247593
MB 280-247593/1-A	Method Blank	Total/NA	Solid	8021B	247593

#### GC Semi VOA

#### Prep Batch: 246421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-60687-1	A-575.1-6	Total/NA	Solid	3546	
280-60687-2	B-26.1-6	Total/NA	Solid	3546	
280-60687-3	D-67.1-6	Total/NA	Solid	3546	
LCS 280-246421/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-246421/1-A	Method Blank	Total/NA	Solid	3546	

# **QC Association Summary**

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

# GC Semi VOA (Continued)

#### Analysis Batch: 246910

Lab Sample ID	e ID Client Sample ID		Matrix	Method	Prep Batch
280-60687-1	A-575.1-6	Total/NA	Solid	8015C	246421
280-60687-2	B-26.1-6	Total/NA	Solid	8015C	246421
280-60687-3	D-67.1-6	Total/NA	Solid	8015C	246421
LCS 280-246421/2-A	Lab Control Sample	Total/NA	Solid	8015C	246421
MB 280-246421/1-A	Method Blank	Total/NA	Solid	8015C	246421

# **General Chemistry**

#### Analysis Batch: 246865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-60687-1	A-575.1-6	Soluble	Solid	9056	246967
280-60687-2	B-26.1-6 Soluble		Solid	9056	246967
280-60687-3	D-67.1-6	Soluble	Solid	9056	246967
280-60687-3 DU	D-67.1-6	Soluble	Solid	9056	246967
280-60687-3 MS	D-67.1-6	Soluble	Solid	9056	246967
280-60687-3 MSD	D-67.1-6	Soluble	Solid	9056	246967
LCS 280-246967/1-A	Lab Control Sample	Soluble	Solid	9056	246967
LCSD 280-246967/2-A	Lab Control Sample Dup	Soluble	Solid	9056	246967
MB 280-246967/3-A	Method Blank	Soluble	Solid	9056	246967
MRL 280-246865/3	Lab Control Sample	Total/NA	Solid	9056	

#### Leach Batch: 246967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-60687-1	A-575.1-6	Soluble	Solid	DI Leach	
280-60687-2	B-26.1-6	Soluble	Solid	DI Leach	
280-60687-3	D-67.1-6	Soluble	Solid	DI Leach	
280-60687-3 DU	D-67.1-6	Soluble	Solid	DI Leach	
280-60687-3 MS	D-67.1-6	Soluble	Solid	DI Leach	
280-60687-3 MSD	D-67.1-6	Soluble	Solid	DI Leach	
LCS 280-246967/1-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 280-246967/2-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
MB 280-246967/3-A	Method Blank	Soluble	Solid	DI Leach	

#### Lab Chronicle

Client: Atlas Energy

Project/Site: Soil Hydrocarbon Characterization

TestAmerica Job ID: 280-60687-1

9

Client Sample ID: A-575.1-6

Lab Sample ID: 280-60687-1

Matrix: Solid

Date Received: 10/02/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.31 g	5 mL	247591	10/01/14 09:55	TEM	TAL DEN
Total/NA	Analysis	8015C		1	6.31 g	5 mL	247618	10/13/14 15:46	TEM	TAL DEN
Tota!/NA	Prep	5030B			9.96 g	10 mL	247593	10/13/14 11:43	TEM	TAL DEN
Total/NA	Analysis	8021B		1 .	9.96 g	10 mL	247638	10/13/14 17:36	TEM	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	246421	10/06/14 18:30	EJP	TAL DEN
Total/NA	Analysis	8015C		1	30.8 g	1 mL	246910	10/09/14 13:27	TDJ	TAL DEN
Soluble	Leach	DI Leach			10.38 g	100 mL	246967	10/08/14 15:11	TLP	TAL DEN
Soluble	Analysis	9056		1	5 mL	5 mL	246865	10/08/14 18:59	DAW	TAL DEN

Client Sample ID: B-26.1-6

Date Collected: 10/01/14 09:56

Lab Sample ID: 280-60687-2

Matrix: Solid

Date Received: 10/02/14 09:20

Date Received: 10/02/14 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	5035			5.993 g	5 mL	247591	10/01/14 09:56	TEM	TAL DEN	
Total/NA	Analysis	8015C		1	5.993 g	5 mL	247618	10/13/14 16:19	TEM	TAL DEN	
Total/NA	Prep	5030B			10.25 g	10 mL	247593	10/13/14 11:43	TEM	TAL DEN	
Total/NA	Analysis	8021B		1	10.25 g	10 mL	247638	10/13/14 19:04	TEM	TAL DEN	
Total/NA	Prep	3546			30.8 g	1 mL	246421	10/06/14 18:30	EJP	TAL DEN	
Total/NA	Analysis	8015C		1	30.8 g	1 mL	246910	10/09/14 13:03	TDJ	TAL DEN	
Soluble	Leach	DI Leach			10.29 g	100 mL	246967	10/08/14 15:11	TLP	TAL DEN	
Soluble	Analysis	9056		1	5 mL	5 mL	246865	10/08/14 19:16	DAW	TAL DEN	

Client Sample ID: D-67.1-6

Date Collected: 10/01/14 09:57

Lab Sample ID: 280-60687-3

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 6.133 g 5 mL 247591 10/01/14 09:57 TEM TAL DEN 247618 10/13/14 16:51 TEM TAL DEN Total/NA Analysis 8015C 6.133 g 5 mL Total/NA 5030B 10.00 g 10 mL 247593 10/13/14 11:43 TEM TAL DEN Prep 10/13/14 19:34 247638 TEM TAL DEN 8021B 10.00 g 10 mL Total/NA Analysis Total/NA Prep 3546 30.7 g 1 mL 246421 10/06/14 18:30 EJP TAL DEN 246910 10/09/14 12:39 TDJ TAL DEN Total/NA Analysis 8015C 30.7 g . 1 mL TAL DEN Leach DI Leach 10.58 g 100 mL 246967 10/08/14 15:11 TLP Soluble TAL DEN 246865 10/08/14 19:34 DAW Soluble Analysis 9056 5 mL 5 mL

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

# Login Sample Receipt Checklist

Client: Atlas Energy

Job Number: 280-60687-1

List Source: TestAmerica Denver

Login Number: 60687

List Number: 1

Creator: Conquest, Tyler W

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Analyses listed on COC; Sample D-67.2 not designated for specific analyses
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	·
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	

N/A

True

True

N/A

<6mm (1/4").

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

Containers requiring zero headspace have no headspace or bubble is

Phone (303) 736-0100 Fax (303) 431-7171

# **Chain of Custody Record**



Client Information	Randy	11/17/	1501			DiLea	R					ľ	Same Tradiang To(o).							36492-14	804.1						
Client Contact: Mr. Randy Madison	Phone: 575	445-	1070F	R .	/ail: ea.bir	ndel@	testan	nerica	ine e																		
Company: Atlas Energy	<u> </u>	7,70		, ,	1		1001011	10,100			sis I			to d	_				Job #:								
Address.	Due Date Reques	ited:	-		hi	獭	<del>-</del>	Т_	<u> </u>	Italy	313	Requ	ues	leu	1	$\overline{}$	Т	181	Pres	ervation C	odes:						
309 Silver Street City: Raton State, Zip:	TAT Requested (	TAT Requested (days): Standard TAT																								M - Hex N - Non O - AsN P - Na2	ne NaO2
NM, 87740 Phone:							ge Organics (GC)	5	İ			- 1	- 1							aHSO4	Q - Na2 R - Na2	2803					
575-445-6706(TeI) Email:		PO#: Purchase Order not required WO#:						Organics (GC)	гарћу										G - Ar H - As I - Ice	mchlor scorbic Acid	\$ - H2S	304 Podecahydrate stone					
rmadison@atlasenergy.com Project Name: Soil Hydrocarbon Characterization	Project #: 28012438	28012438						Diesel Range Or	Chromatography		ı							0. Saliners	K-ED	OTA DA	W - ph 4						
Site: Raton, NM	SSOW#.				Sam	iosex) insi	Gasoline	Jesel	lou C			Ì		1		Ì	1	Office	Other:								
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp G=grab)	(W=water, S=solid, O=wsstofoll, BT=Tissue, A=Air	Field Fillerad,	FORGER PHEY	8015C_TVPH	8015C_TEPH .	9056_Chloride,									Total Number	1	Special	Instructio	ons/Note:					
All this graduation and the commence of the co				ation Code	X			Ŋ	N						排制	遊遊		X		PRINCIPLE STATE	eiter pp. 12.0 September	in artalluni h					
H-576.1	10/1/14	0955	G	Solid	Ш		X																				
1A-575,2	12/1/19	0956	G	Solid			X	]_										1	H								
A-575.3	10/1/14	0957	(-	Solid	П	X											Т	25.5									
A-5754	19/1/4	3958	(>	Solid	$\prod$	X		,																			
A-575.5	10/1/19	1000	Ğ	Solid				X	,																		
A575.6	10/1/14	003	6	Solid					X						$\perp$	$\perp$			5								
		Ì		Solid	Ш				,										ic.								
				Solid															1								
				Solid											Т							•					
				Solid	П													1									
			]	Solid	П										T												
Possible Hazard Identification  Non-Hazard Flammable Skin Imitant Poi	son B Junkn	own $\square_F$	Radiologica	1		Sampl	le Dis <sub>i</sub> Returr	posal To C	l ( A f Client	fee m	ay b			ed if s		iles a			ed long ive For	ger than 1	1 month) Monti						
Deliverable Requested: I, II, III, IV, Other (specify)						Specia					uiren																
Empty Kit Relinquished by:	,	Date:			Tim	ie:							М	ethod (	of Ship	ment				-							
Religinisted as DM	Date/Time:	5/60	)	Company	۲.	Red	elved b	Y			=		•		Da / d	te/Tɪm	e. 2.//	il-l	09:		Company	₩					
Reinquiefied by:	Date/Time:	<u> </u>		Company	<b>У</b>	Received by:									18/2/14-0 Date/Time:					Company							
Relinquished by:	Date/Time.			Company		Rec	eived b	γ: ———							Da	te/Time	9:				Company	y					

Cooler Temperature(s) °C and Other Remarks:

Custody Seals Intact:
Δ·Yes Δ·No

Custody Seal No.:

#### TestAmerica. Denver

4955 Yarrow Street Arvada, CO 80002

# **Chain of Custody Record**



Phone (303) 736-0100 Fax (303) 431-7171 Carrier Tracking No(s): COC No: Client Information Bindel, DiLea R 280-36492-14804.1 Client Contact: E-Mail: Page: Mr. Randy Madison dilea.bindel@testamericainc.com Company: Job#: Atlas Energy **Analysis Requested** Address: Due Date Requested: Preservation Codes: 309 Silver Street A - HCL M - Hexane TAT Requested (days): B - NaOH N - None Raton Standard TAT C - Zn Acetate O - A5NaO2 State, Zip: D - Nitric Acid P - Na2O4S NM, 87740 Organics (GC) E - NaHSO E - NaHSO4 Q - Na2SO3 R - Na2S2SO3 Phone. G - Amohlor S-H2SO4 575-445-6706(Tel) Purchase Order not required T - TSP Dodecahydrate H - Ascorbic Acid Email. WO#: I - fce U - Acetone J - Ol Water madison@atlasenergy.com V - MCAA 8015C\_TVPH - Gasoline Range K-EDTA W - ph 4-5 Project Name: Project# L-EDA Z - other (specify) Soil Hydrocarbon Characterization 28012438 SSOW#: Other: Raton, NM Matrix Sample (W=water, Type S=solid, (C=comp Sample G=grab) Sample Identification Sample Date Special Instructions/Note: G Solid ک Solid Possible Hazard Identification Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) Poison B Unknown Radiological Non-Hazard Flammable Skin Irritant Return To Client Disposal By Lab Archive For Months Deliverable Requested: I, II, III, IV, Other (specify) Special Instructions/QC Requirements: Empty Kit Relinquished by: Date: Time: Method of Shipment. HHAS Company Relinquished by Company Received by: Date/Time: Relinquished by: Company Received by: Company Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks: , Δ Yes: Δ No

7

1000	<b>5</b> 2	•
<b>OC</b>	$t\Delta m$	erico
103	\$3 <u>, 6</u> 1   1	
Garden C	enterment of the later	il Vicinia and Markette and Admired

Phone (303) 736-0100 Fax (303) 431-7171	$\wedge$			,												THE LEADER IN E	VVIRONMENTAL TI	ESTING
	Sampler:	W) i	)	Lab							Ca	rrier Traci	king No(s)	:		COC No:		
Client Information Client Contact:	Mana,	11102	150	Bin E-M	del, Di	Lea R										280-36492-1480	4.1	
Mr. Randy Madison	Phone:	45	-(G)X			el@tes	tamer	icain	c.com							Page:		
Company: Atlas Energy			<b>.</b>		Analysis Requested									Job #:	<del> </del>			
Address;	Due Date Reques	ted:					T		T						18年	Preservation Cod	es:	
309 Sliver Street City:	TAX De sucestad de	lavat.										1 1				A - HCL	M - Hexane	
Raton	TAT Requested (c	<sub>lays):</sub> Standar	d TAT					-								B - NaOH C - Zn Acetate	N - None O - AsNaO2	
State, Zip:	1								1			1 1				D - Nitric Acid	P-Na204S	
NM, 87740 Phone	200					<b>2</b>	8	<u>ن</u>	ı			1	i			E - NaHSO4 F - MeOH	Q - Na2SQ3 R - Na2S2SQ3	
575-445-6706(Tel)	PO#: Purchase Orde	r not require	ed			romatics only	Organics (GC)	s (6C)	-							G - Amchior	S-H2SO4	
Email:	WO#:	· · · · · · · · · · · · · · · · · · ·			12	ta l	rga	Organics	副	1						H - Ascorbic Acid I - Ice	T - TSP Dodecahy U - Acetone	ydrate
rmadison@atlasenergy.com					Q S	A S	8	်ဳ	ography						100	J - DI Water K - EDTA	V-MCAA	
Project Name: Soil Hydrocarbon Characterization	Project #. 28012438				3	ق اد	Ran	Diesel Range	ta l		- 1					L-EDIA	W - ph 4-5 Z - other (specify)	
Site.	\$\$0\#;					S S	£ .	<u>~</u>   ;	Chroma	1 [					JUO.	Other:		
Raton, NM					易吃	9	gg .	š   j	5 5			1 1				<b>-</b>		
			Samula	Matrix	P 8	381 J I	¥   ;	Ξ   :	g e	1 1		1 [		I	per			
			Sample Type	(W=water,	a lie	BTEX	출.   l	[일 ]	201	1 1			1 1		熳			
		Sample	(C≃comp,	Seaolid, O=waste/od,		8021B - I	8015C_TVPH	8015C_TEPH.	9058_Chloride,					- 1	Total Numb			
Sample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=Air			8	8	š						8	Special Ins	tructions/Note	:
			Preserve	ton Code.	XX			N M		R MIN				爾臘	X	e propriore de la comp	Palma beliana da la est	
1)-67.	10/1/14	1203	G	Solid			$X \vdash$		1									
$\Omega - 67.2$	0/1/14	1204	G	Solid														
D-67,3	10/1/14	1207	G	Solid		X												
D-07.4	Idilly'	DOS	5	Solid		X					_   .				攤			
N-67.5	10/1/14	1209	6	Solid														
D-67.6	10/1/4	BUD'	6	Solid	Ш			_)										
	/		Electron 1	Solid	Ш				`_									
				Solid	Ш			$\perp$							糠			
				Solid														
				Solid				$\perp$				<u> </u>			- T			
				Solid														
Possible Hazard Identification	- <del></del>				Sa	mple l	Dispo	sal (	A fee	may b	e asse	ssed if	sample			d longer than 1 n	nonth)	
	on B X Unkno	own L_JF	adiological			□ <sub>Re</sub>					Dispo	sal By t	Lab	$\Box_A$	lrchiv	re For	Months	
Deliverable Requested: I, II, III, IV, Other (specify)	•				Sp	ecial Ir	nstruct	tions/	QC R	equirer	ments:							
Empty Kit Relinquished by:		Date:			Time:							Method	of Shipme	nt				
Relingfishild by	Date/Time.)	ts 16	<b>)</b>	Company (	S	Receiv	ed by:		_				Date/T	īme: /2/14	i-0	992¢	Company	
Retirity shed by:	Date/Time	<u> </u>		Company		Receiv	ed by	<u> </u>					Date/T	ime:			Company	
Relinquished by:	Date/Time:			Company		Receiv	red by:	•				-	Date/T	ime		-	Company	
Custody Seals Intact: Custody Seal No.:	- Marine	-1, -1,		, , ,		Cooler	Tempe	rature	(s) °C a	nd Othe	r Remark	s:	ŀ		٠,	<u> </u>		
A manager of the first summer of the contract						1										,		

[-2]