HOBSS OCD	State of New Mexico
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SEP

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

	Ener	gy Minerals and Natural Resources
0	9 2013	Oil Conservation Division

Form C-141 Revised August 8, 2011

- ---

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1220 South St. Francis Dr.RECEIVEDSanta Fe, NM 87505

# **Release Notification and Corrective Action**

	OPERATOR		Initial Report	$\boxtimes$	Final Report
Name of Company Apache Corporation	Contact Larry Bruce Baker				
Address PO Box 1849, Eunice, NM 88231	Telephone No. (432) 631-6982				
Facility Name Bunin #006	Facility Type Well Location				
		•			

Surface Owner Bunin, N B Properties

Mineral Owner

API No. 30-025-39547

# LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
А	13	21S	37E	351	FNL	980	FEL	Lea

Latitude\_\_\_\_\_Longitude\_\_\_\_

NATHER OF DELEASE

NAIUKE	OFRELEASE				
Type of Release Oil and Produced water	Volume of Release 20 bbls	Volume Recovered 10 bbls			
Source of Release Stuffing box	Date and Hour of Occurrence	Date and Hour of Discovery			
	unknown	7/2/13 9:45 am			
Was Immediate Notice Given?	If YES, To Whom?				
🛛 Yes 🔲 No 🔲 Not Required	Geoff Leking – NMOCD				
	Jeffery Robertson – BLM				
By Whom? RECS	Date and Hour 7/2/13 NMOCD 3:	45 pm			
	BLM 3:48 p	m			
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.			
🗌 Yes 🖾 No					
If a Watercourse was Impacted, Describe Fully.*					
	DT	N=69'			
Describe Cause of Problem and Remedial Action Taken.*					
The stuffing box released 20 bbls of oil and produced water. A vacuum t	ruck was called on site and retrieved 1	0 bbls of oil and produced water. The			
affected pad was covered over with caliche to protect wildlife until the or	ne-call clears. The site will be delinea	ted to determine further actions.			
Describe Area Affected and Cleanup Action Taken.*					
The release affected a total of 3,501 sq ft, of which 918 sq ft was in the p	asture. On July 9 <sup>th</sup> , 2013, BLM inform	ned RECS that the site was not under BLM			
jurisdiction. On July 3 <sup>ra</sup> , 2013, RECS personnel were on site to take initi	al samples. Samples were taken from	the surface throughout the release area and			
sent to a commercial laboratory for analysis. Based on the sampling data	, the site was excavated to 6 inches bg	s in the pasture and to 2 ft bgs on the lease			
pad. Grab samples were taken from the walls and bottom of the excavati	ons and field tested for chlorides and l	nydrocarbons. Representative samples were			
taken to a commercial laboratory for analysis. All samples returned labo	ratory chloride results below 250 mg/l	g and GRO and DRO values of non-detect.			
On August 2 <sup>aa</sup> , 2013, NMOCD gave Apache permission to backfill the si	ite with clean, imported soil. On Augu	ist 5 <sup>th</sup> , the pasture was backfilled with clean,			
imported top soil and the lease pad was backfilled with clean, imported c	aliche. The pasture area was contoure	d to the surrounding location, and the lease			
pad was water packed to provide a solid driving surface.		1.1			
I hereby certify that the information given above is true and complete to	the best of my knowledge and underst	and that pursuant to NMOCD rules and			
regulations all operators are required to report and/or file certain release i	notifications and perform corrective ac	tions for releases which may endanger			
public health or the environment. The acceptance of a C-141 report by the	ne NMOCD marked as "Final Report"	does not relieve the operator of liability			
should their operations have failed to adequately investigate and remedia	te contamination that pose a threat to	ground water, surface water, human health			
or the environment. In addition, NMOCD acceptance of a C-141 report of	does not relieve the operator of respon	sibility for compliance with any other			
federal, state, or local laws and/or regulations.					
	OIL CONSER	VATION DIVISION			
Simular & Barris Palas	AC. AO	$\Delta a$ , $\nabla a D M$ ,			
Signature: Lang Tomer Former	FRINC	SWALL AND AND			
	Approved by Environmental Specialist:				
Printed Name: Larry Bruce Baker	Envi	ronmental Specialist			
Titles Environmental Technician	A	Provincian Data			
The. Environmental Technician	Approval Date: 1113	Expiration Date:			
		1			

Conditions of Approval:

Date: **G** - **30** - **/3** Phone: (432) 631-6982

E-mail Address: larry.baker@apachecorp.com

\* Attach Additional Sheets If Necessary

1RP-9-13-2946 NSAD (416,34935

Attached

h

EXPLORING WHAT'S POSSIBLE

HOBBS OCD

SEP 0 9 2013

RECEIVED

# **APACHE CORPORATION**

P.O.Box 1849 Eunice, NM 88231 Phone 575.394.3159

approved Environmental S

NMOCD-DIST( 9/11/13

# Bunin #006

# **Termination Request**

API 30-025-39547

Release Date: July 2<sup>nd</sup>, 2013

Unit Letter A, Section 13, Township 21S, Range 37E

# Rice Environmental Consulting & Safety

P.O. Box 2948, Hobbs, NM 88241 Phone 575.393.2967

# August 29<sup>th</sup>, 2013

# **Geoffrey Leking**

New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau – District 1 1625 N. French Dr. Hobbs, NM 88240-9273

# RE: Termination Request Apache Corporation Bunin #006: API No. 30-025-39547 UL/A sec. 13 T-21-S R-37-E

Mr. Leking:

Apache Corporation (Apache) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

# **Background and Previous Work**

The site is located approximately 4 miles northeast of Eunice, New Mexico at UL/A sec. 13 T21S R37E. NM OSE and BLM records indicate that groundwater will likely be encountered at a depth of approximately 41 +/- feet.

A release of oil and produced water occurred from the stuffing box of the well on July 2<sup>nd</sup>, 2013. A total of 20 barrels of oil was produced water was released. A vacuum truck was called to the site and it retrieved a total of 10 barrels of oil and produced water. The affected pad was covered over with caliche to protect wildlife until the one-called cleared. NMOCD and BLM were notified of the release on July 2<sup>nd</sup>, 2013 and an initial C-141 was submitted to both agencies on July 3<sup>rd</sup>, 2013 (Appendix A). On July 9<sup>th</sup>, 2013, BLM informed RECS that the site was not under BLM jurisdiction.

On July 3<sup>rd</sup>, 2013, RECS personnel were on site to take initial samples (Figure 1). Samples were taken from the surface throughout the release area and sent to a commercial laboratory for analysis (Appendix B). Based on the sampling data, the site was excavated to 6 inches bgs in the pasture and to 2 ft bgs on the lease pad (Figure 2). Grab samples were taken from the walls and bottom of the excavations and field tested for chlorides and hydrocarbons. Representative samples were taken to a commercial laboratory for analysis (Appendix C). All samples returned laboratory chloride results below 250 mg/kg and GRO and DRO values of non-detect.

On August 2<sup>nd</sup>, 2013, NMOCD gave Apache permission to backfill the site with clean, imported soil. On August 5<sup>th</sup>, the pasture was backfilled with clean, imported top soil

and the lease pad was backfilled with clean, imported caliche. The pasture area was contoured to the surrounding location, and the lease pad was water packed to provide a solid driving surface.

Photo Documentation of these activities can be found in Appendix D.

Due to the removal of the impacted soil and that the site was backfilled with clean, imported soil, RECS on behalf of Apache submits the final C-141 (Appendix E) and respectfully requests the closure of the regulatory file.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

JC.W.

Lara Weinheimer Project Scientist RECS (575) 441-0431

Attachments:

Figure 1 – Initial Sampling Data Figure 2 – Excavation Map Appendix A – Initial C-141 Appendix B – Initial Laboratory Analyses Appendix C – Final Laboratory Analyses Appendix D – Photo Documentation Appendix E – Final C-141



# Figures

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948, Hobbs, NM 88241 Phone 575.393.2967

# Initial Sampling Data



# **Excavation Map**



# Appendix A Initial C-141

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967

# State of New Mexico Energy Minerals and Natural Resources

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.

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1220 S. St. Fran	cis Dr., Sant	a Fe, NM 8750.	5	Sa	anta I	Fe, NM 875	505				
			Rel	ease Notifi	catio	on and Co	orrective A	ction			
						OPERA'	ГOR	🖂 Initia	al Report		Final Repor
Name of Co	ompany A	Apache Corp	oration			Contact X	avier Martinez	~ ~ / ~			
Address P Facility Nat	O Box 184 ne Bunin	19, Eunice, P	M 8823	<u>.</u>	· ···—···	Telephone I	No. (432) 208- No. Well Locatio	<u>3319</u>	<u></u>		
	<u> </u>				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Tacinty 19					
Surface Ow	ner Bun	in, N B Prop	erties	Mineral	Jwner			API No	<u>. 30-025-3</u>	9547	
·				LOCA	ATIC	ON OF RE	LEASE				
Unit Letter	Section	Township	Range	Feet from the	Nort	h/South Line	Feet from the	East/West Line	County		
A	13	215	37E	351		FNL	980	FEL	Lea		
			La	titude		Longitud	le				
				NAT	רקווי	COF REL	EASE				
Type of Rele	ase Oil an	d Produced w	ater	1111		Volume of	Release 20 bbls	Volume I	Recovered	10 bbl	S
Source of Re	lease Stuff	fing box				Date and H	lour of Occurrence	$\begin{array}{c} \text{De} \\ 7/2/13 \\ 9 \end{array}$	Hour of Dis	covery	'
Was Immedia	ate Notice (	Given?				If YES, To	Whom?	112113 9	4 <b>5</b> am		
		$\boxtimes$	Yes [	No 🗌 Not R	equiree	d Geoff Leki	ng – herteon				
By Whom?	RECS			······································		Date and F	lour 7/2/13 NMC	OCD 3:45 pm			
Was a Water	Dourse Dag	he/12				IFVES V	BLM	3:48 pm			
was a water	ourse read		Yes 🗵	] No		n 125, vi	nume impacting (	ne macreoarse.			
If a Watercou	irse was Im	pacted, Descr	ibe Fully.	*							
Describe Cau	se of Probl	em and Reme	dial Actio	n Taken.*							
The stuffing l	box released	d 20 bbls of o d over with ca	il and proo liche to p	luced water. A va rotect wildlife unt	acuum il the c	truck was calle ne-call clears	ed on site and retr The site will be c	ieved 10 bbls of oil lelineated to determ	l and produc	ed wat	er. The
arected plu			шене (о р		n the c	ne can ciculo.				action	· ·
Describe Are	a Affected :	and Cleanup /	Action Tal	ken.*							
											·
I hereby certi	fy that the i	nformation gi	iven above	is true and comp	lete to	the best of my	knowledge and u	nderstand that purs	suant to NM	OCD r	ules and
regulations al public health	l operators or the envir	are required t ronment. The	o report ai	nd/or file certain r se of a C-141 repo	elease ort by t	notifications a he NMOCD m	nd perform correc arked as "Final R	tive actions for rele eport" does not reli	eases which ieve the oper	may e ator o	ndanger f liability
should their o	perations h	ave failed to a	adequately	investigate and r	emedia	ate contaminati	on that pose a thr	eat to ground water	r, surface wa	tér, hu	iman health
federal, state,	or local lay	wittion, NAIC	Hations.	ance of a C-141	report	does not reliev	e the operator of i	responsibility for c	omphance w	nth an	y other
	N.	- vA	A	2			OIL CON	SER VATION	DIVISIC	<u>N</u>	
Signature:	Kaw	~ 11/0	Vile								
Printed Name	: Xavier M	lartinez	10			Approved by	Environmental S	pecialist:			
Title: EH&S	Technician	n				Approval Dat	e:	Expiration	Date:		
E-mail Addre	ss: Xavier	.martinez@ar	achecorp.	com		Conditions of	Approval:		Austral	<b>1</b> 1	
Data: 0/	2/2.	12	Dhana	(122) 200 221	0	Atlach		Allached	Ц		
Date.	2 per		r none:	(432) 200-331	2	- <u></u>			)		

\* Attach Additional Sheets If Necessary

# Appendix B Initial Laboratory Analyses

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967



# Analytical and Quality Control Report

Steven Fleming Apache Corp.-Midland 303 Veterans Airpark Lane Suite #3000 Midland, TX, 79705

Report Date: July 15, 2013

Work Order: 13070802

Project Location:NMProject Name:Apache Bunin #006Project Number:Apache Bunin #006

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	
334150 Point 1 @ Surface soil 2013-07-03	3 11:00 2013-07-03	5
334151 Point 2 @ Surface soil 2013-07-03	3 11:05 2013-07-03	\$
334152 Point 3 @ Surface soil 2013-07-03	3 11:10 2013-07-03	5
334153 Point 4 @ Surface soil 2013-07-03	3 11:15 2013-07-03	,
334154 Point 5 @ Surface soil 2013-07-03	3 11:20 2013-07-03	\$
334155 Point 6 @ Surface soil 2013-07-03	3 11:25 2013-07-03	•

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

This report consists of a total of 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael alal

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

,

# **Report Contents**

Case Narrative

.

Analytical Report         Sample 334150 (Point 1 @Surface)         Sample 334151 (Point 2 @Surface)         Sample 334152 (Point 3 @Surface)         Sample 334153 (Point 4 @Surface)         Sample 334154 (Point 5 @Surface)         Sample 334155 (Point 6 @Surface)	5 6 7 8 9 10
Method Blanks         Image: Constraint of the system	12 12 12 12
Laboratory Control Spikes       :         QC Batch 102932 - LCS (1)       :         QC Batch 102978 - LCS (1)       :         QC Batch 103041 - LCS (1)       :         QC Batch 102932 - MS (1)       :         QC Batch 102978 - MS (1)       :         QC Batch 103041 - MS (1)       :	13 13 14 14 14 15
Calibration Standards	<ol> <li>16</li> <li>16</li> <li>16</li> <li>16</li> <li>17</li> <li>17</li> <li>17</li> <li>17</li> </ol>
Appendix         Report Definitions         Laboratory Certifications         Standard Flags         Attachments	19 19 19 19 19

4

# **Case Narrative**

Samples for project Apache Bunin #006 were received by TraceAnalysis, Inc. on 2013-07-03 and assigned to work order 13070802. Samples for work order 13070802 were received intact at a temperature of 22.1 C. Samples were not on ice when received.

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

•		$\operatorname{Prep}$	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (Titration)	SM 4500-Cl B	87260	2013-07-12 at 11:06	103041	2013-07-15 at 10:57
TPH DRO - NEW	S 8015 D	87197	2013-07-09 at 14:00	102932	2013-07-10 at 10:34
TPH GRO	S 8015 D	87234	2013-07-11 at $08:00$	102978	2013-07-11 at $10:30$

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 13070802 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: July 15, 2013 Apache Bunin #006 Work Order: 13070802 Apache Bunin #006

# Analytical Report

### Sample: 334150 - Point 1 @ Surface

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 103041 87260	Analytical Method: Date Analyzed: Sample Preparation		SM 4500-Cl B 2013-07-15 2013-07-12	Prep Method: Analyzed By: Prepared By:	N/A AR AR
			$\operatorname{RL}$			
Parameter	$\operatorname{Flag}$	Cert	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride			6940	mg/Kg	10	4.00

# Sample: 334150 - Point 1 @ Surface

Laboratory:	Midland	l								
Analysis:	TPH DI	RO - NEV	N	An	alytical Metl	5 D	Prep M	Iethod: N/A		
QC Batch:	102932			Dat	te Analyzed:	2013-	-07-10	Analyz	ed By: CW	
Prep Batch:	87197			Sar	nple Prepara	ation: 2013-	-07-09 Prepared By: CW			
						RL				
Parameter			Flag	Cert	Re	esult	Units	Dilution	$\operatorname{RL}$	
DRO				1	1	910	mg/Kg	1	50.0	
							Spike	Percent	Recovery	
Surrogate		Flag	Cert	$\operatorname{Result}$	Units	Dilution	Amount	Recovery	Limits	
n-Tricosane	Qsr	Qsr		810	mg/Kg	1	100	810	55.1 - 135.7	

### Sample: 334150 - Point 1 @ Surface

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 102978 87234			Analytic Date An Sample l	al Methoc alyzed: Preparatic	l: S 8015 2013-0 on: 2013-0	5 D )7-11 )7-11		Prep Methoo Analyzed By Prepared By	l: S 5035 : KC : KC
						$\operatorname{RL}$				
Parameter		Flag		$\operatorname{Cert}$		Result	Uni	s	Dilution	$\operatorname{RL}$
GRO				1		665	mg/K	g	5	4.00
Surrogate			Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)				8.36	mg/Kg	5	10.0	84	70 - 130
							contr	nued		

Report Date: July 15, 2013 Apache Bunin #006		١	Work Orde Apache B	r: 1307080 unin #006	2	Page Number: 6			
sample continued						Spileo	Porcout	Bocovory	
C	El	Cant	Descrit	TT	Dilution	Amount	Percent	Limite	

Surrogate	Flag	$\operatorname{Cert}$	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)			11.6	mg/Kg	5	10.0	116	70 - 130

# Sample: 334151 - Point 2 @ Surface

Laboratory: Analysis: QC Batch: Prep Batch:	oratory: Midland lysis: Chloride (Titration) Batch: 103041 p Batch: 87260		Analytic Date An Sample 1	al Method: alyzed: Preparation:	SM 4500-Cl B 2013-07-15 2013-07-12	Prep Method: Analyzed By: Prepared By:	N/A AR AR
				$\operatorname{RL}$			
Parameter		Flag	Cert	Result	Units	Dilution	$\mathbf{RL}$
Chloride				2300	mg/Kg	10	4.00

-

# Sample: 334151 - Point 2 @ Surface

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DI 102932 87197	l RO - NE	W	Ana Dat San	ılytical Metl e Analyzed: ıple Prepara	hod: S 801 2013- ation: 2013-	5 D 07-10 07-09	Prep M Analyz Prepar	Iethod: N ed By: C ed By: C	/A W W
_					_	RL				D.
Parameter			Flag	$\operatorname{Cert}$	Re	esult	Units	Dilution		RL
DRO				1	9	430	mg/Kg	5	5	0.0
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recover Limits	ry
n-Tricosane	Qsr	Qsr		3160	mg/Kg	5	100	3160	55.1 - 13	5.7

# Sample: 334151 - Point 2 @ Surface

GRO			1	3260	mg/Kg	50	4.00
Parameter		Flag	Cert	Result	Units	Dilution	RL
				BL			
Prep Batch:	87234		Sample Prep	aration: 2013-07	7-11	Prepared By:	KC
QC Batch:	102978		Date Analyz	ed: 2013-07	7-11	Analyzed By:	$\mathbf{KC}$
Analysis:	TPH GRO		Analytical M	lethod: S 8015	D	Prep Method:	S 5035
Laboratory:	Midland						

Report Date: July 15, 2013 Apache Bunin #006		I	Work Orde Apache B	er: 1307080 Junin #006	2		Page Num	iber: 7 of 20 NM	
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotoluene (TFT)			91.9	mg/Kg	50	100	92	70 - 130	
4-Bromofluorobenzene (4-BFB)			99.5	mg/Kg	50	100	100	70 - 130	

# Sample: 334152 - Point 3 @ Surface

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration 103041 87260	1)	Analytic Date An Sample I	al Method: alyzed: Preparation:	SM 4500-Cl B 2013-07-15 2013-07-12	Prep Method: Analyzed By: Prepared By:	N/A AR AR
				$\operatorname{RL}$			
Parameter		Flag	$\operatorname{Cert}$	$\operatorname{Result}$	Units	Dilution	$\operatorname{RL}$
Chloride				7130	mg/Kg	10	4.00

# Sample: 334152 - Point 3 @ Surface

Laboratory: Midland Analysis: TPH DRO QC Batch: 102932 Prep Batch: 87197		RO - NE	W	Ana Dat San	alytical Metl se Analyzed: aple Prepara	nod: S 801 2013- ttion: 2013-	5 D 07-10 07-09	Prep M Analyz Prepar	rep Method: N nalyzed By: C repared By: C tion	V/A CW CW
						RL				
Parameter			Flag	$\operatorname{Cert}$	Re	sult	Units	Dilution		$\mathbf{RL}$
DRO				1	12	200	mg/Kg	10	Ę	50.0
Surrogate		Flag	Cert	Result	Units	Dilution	${ m Spike} \ { m Amount}$	Percent Recovery	Recove Limit	ery s
n-Tricosane	Qsr	Qsr		4040	mg/Kg	10	100	4040	55.1 - 13	35.7

# Sample: 334152 - Point 3 @ Surface

GRO			1	1170	mg/Kg	20	4.00
Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Prep Batch:	87234		Sample Prep	paration: 2013-07	7-11	Prepared By:	KC
Analysis: QC Batch:	102978		Date Analyz	ed: 2013-07	D 7-11	Analyzed By:	S 5035 KC
Laboratory:	Midland				D		0 5005

Report Date: July 15, 2013 Apache Bunin #006			Vork Orde Apache B	er: 13070809 unin #006	2		Page Num	Imber: 8 of 20 NM	
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotoluene (TFT)			34.3	mg/Kg	20	40.0	86	70 - 130	
4-Bromofluorobenzene (4-BFB)			42.4	mg/Kg	20	40.0	106	70 - 130	

# Sample: 334153 - Point 4 @ Surface

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Laboratory: Analysis: QC Batch: Prep Batch:	Laboratory: Midland Analysis: Chloride (Titration) QC Batch: 103041 Prep Batch: 87260		cal Method: aalyzed: Preparation:	SM 4500-Cl B 2013-07-15 2013-07-12	Prep Method: Analyzed By: Prepared By:	N/A AR AR
			RL			
Parameter	Flag	$\operatorname{Cert}$	$\operatorname{Result}$	Units	Dilution	$\operatorname{RL}$
Chloride			6670	mg/Kg	10	4.00

# Sample: 334153 - Point 4 @ Surface

Laboratory:	Midland	1							
Analysis:	TPH D	RO - NE	W	Ana	alytical Metl	hod: S 801	5 D	Prep M	fethod: N/A
QC Batch:	102932			Dat	e Analyzed:	2013-	07-10	Analyz	ed By: CW
Prep Batch:	87197			San	iple Prepara	ation: 2013-	07-09	Prepar	ed By: CW
						RL			
Parameter			Flag	Cert	Re	esult	Units	Dilution	$\operatorname{RL}$
DRO				1	22	2000	mg/Kg	10	50.0
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		8580	mg/Kg	10	100	8580	55.1 - 135.7

# Sample: 334153 - Point 4 @ Surface

GRO			1	1030	$\mathrm{mg/Kg}$	20	4.00
Parameter		Flag	Cert	Result	Units	Dilution	$\operatorname{RL}$
				BL.			
Prep Batch:	87234		Sample Prep	paration: 2013-0	7-11	Prepared By:	KC
QC Batch:	102978		Date Analyz	ed: 2013-0'	7-11	Analyzed By:	KC
Analysis:	TPH GRO		Analytical M	Iethod: S 8015	D	Prep Method:	S 5035
Laboratory:	Midland						

.

Report Date: July 15, 2013 Apache Bunin #006		1	Work Orde Apache B		Page Number: 9 of 20 NM			
Surrogate	Flag	$\operatorname{Cert}$	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)			33.9 42.8	mg/Kg mg/Kg	20 20	40.0 40.0	85 107	70 - 130 70 - 130

# Sample: 334154 - Point 5 @ Surface

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 103041 87260	Analyt Date A Sample	ical Method: nalyzed: Preparation:	SM 4500-Cl B 2013-07-15 2013-07-12	Prep Method: Analyzed By: Prepared By:	N/A AR AR
			$\mathbf{RL}$			
Parameter	Flag	Cert	Result	Units	Dilution	$\mathbf{RL}$
Chloride	U		<20.0	mg/Kg	5	4.00

# Sample: 334154 - Point 5 @ Surface

Laboratory:	Midland	1								
Analysis:	TPH D	RO - NE	W	Ana	alytical Met	hod: S 801	5 D	Prep M	lethod:	N/A
QC Batch:	102932			Dat	e Analyzed:	2013-	07-10	Analyz	ed By:	ĊW
Prep Batch:	87197			San	nple Prepara	Preparation: 2013-07-09 Prepar		ed By:	CW	
						RL				
Parameter			Flag	$\operatorname{Cert}$	Re	esult	Units	Dilution		$\mathbf{RL}$
DRO				1	30	400	mg/Kg	20		50.0
							Spike	Percent	Reco	overy
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Lin	nits
n-Tricosane	Qsr	Qsr		9150	mg/Kg	20	100	9150	55.1 -	135.7

# Sample: 334154 - Point 5 @ Surface

GRO			1	5330	mg/Kg	50	4.00
Parameter		Flag	Cert	Result	Units	Dilution	RL
				RL			
Prep Batch:	87234		Sample Prep	aration: 2013-07	7-11	Prepared By:	KC
QC Batch:	102978		Date Analyz	ed: 2013-07	7-11	Analyzed By:	$\mathbf{KC}$
Analysis:	TPH GRO		Analytical M	[ethod: S 8015	D	Prep Method:	S 5035
Laboratory:	Midland						

Report Date: July 15, 2013           Apache Bunin #006		V	Vork Order Apache Bu	Page Number: 10 of 20 NM				
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			86.4	mg/Kg	50	100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			117	mg/Kg	50	100	117	70 - 130

### Sample: 334155 - Point 6 @ Surface

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 103041 87260	Analytic Date An Sample 2	al Method: alyzed: Preparation:	SM 4500-Cl B 2013-07-15 2013-07-12	Prep Method: Analyzed By: Prepared By:	N/A AR AR
			RL			
Parameter	$\operatorname{Flag}$	$\operatorname{Cert}$	$\operatorname{Result}$	Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

### Sample: 334155 - Point 6 @ Surface

.

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DI 102932 87197	I RO - NE	W	Analytical Method:S 8015 DDate Analyzed:2013-07-10Sample Preparation:2013-07-09				Prep M Analyz Prepar	fethod: N/A ed By: CW ed By: CW
						$\operatorname{RL}$			
Parameter			Flag	Cert	Re	esult	Units	Dilution	RL
DRO				1	23	900	mg/Kg	10	50.0
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		8180	mg/Kg	10	100	8180	55.1 - 135.7

# Sample: 334155 - Point 6 @ Surface

Laboratory: Analysis: QC Batch: Prep Batch:	ooratory: Midland alysis: TPH GRO Batch: 102978 p Batch: 87234		Analytical M Date Analyz Sample Prep	lethod: S 8015 ed: 2013-07 aration: 2013-07	Prep Method: Analyzed By: Prepared By:	S 5035 KC KC	
				$\operatorname{RL}$			
Parameter		Flag	$\operatorname{Cert}$	$\operatorname{Result}$	$\mathbf{Units}$	Dilution	$\operatorname{RL}$
GRO			1	1990	mg/Kg	50	4.00

Report Date: July 15, 2013 Apache Bunin #006		Work Order: 13070802 Apache Bunin #006						Page Number: 11 of 20 NM		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits		
Trifluorotoluene (TFT)			90.6	mg/Kg	50	100	91	70 - 130		
4-Bromofluorobenzene (4-BFB)			124	mg/Kg	50	100	124	70 - 130		

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Apache Bunin #006				Apache Bu	min #006			NM
Method B	Blan	$\mathbf{ks}$						·
Method Blank (1)	QC	Batch: 102	2932					
QC Batch: 102932			Date	Analyzed:	2013-07-10		Analy	zed By: CW
Prep Batch: 87197			QC P	reparation:	2013-07-09		Prepa	red By: CW
						MDL		
Parameter		$\mathbf{F}$	lag	Cert		Result	Units	$\operatorname{RL}$
DRO				1		11.2	mg/Kg	50
Surrogate	Flor	Cort	Rosult	Units	Dilution	Spike A mount	Percent	Recovery Limits
n-Tricosane	1 lag	OCIU	84.4	mg/Kg	1	100	84	55.1 - 135.7

QC Batch: 102978 Prep Batch: 87234		Date A QC Pre	nalyzed: eparation:	2013-07-11 2013-07-11	1 1		Analyzed Prepared	By: KC By: KC
					MDL			
Parameter	Flag		$\operatorname{Cert}$		$\operatorname{Result}$		Units	$\operatorname{RL}$
GRO			1		3.66		mg/Kg	4
			D li	TT '4.		Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.70	mg/Kg	1	2.00	85	70 - 130

Method Blank (1) QC Batch: 103041 Analyzed By: AR QC Batch: 103041Date Analyzed: 2013-07-15Prep Batch: 87260 QC Preparation: 2013-07-12 Prepared By: AR MDL Result Units Parameter Flag  $\operatorname{Cert}$ Chloride <3.85 mg/Kg

Report Date: July 15, 2013

# Work Order: 13070802

RL

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Method Blank (1) QC Batch: 102978 Report Date: July 15, 2013 Apache Bunin #006

# Laboratory Control Spikes

# Laboratory Control Spike (LCS-1)

QC Batch: 102932 Prep Batch: 87197		Date QC F	Analyzed: reparation:	2013-07-10 2013-07-09			Analy Prepa	yzed By: ared By:	CW CW
		$\mathbf{L}$	CS		Spike	Mat	rix	F	Rec.
Param	$\mathbf{F}$	C Re	sult Un	its Dil.	Amount	Resi	ılt Rec.	L	imit
DRO		ı 1	94 mg/	'Kg 1	· 250	11.	2 73	66.9	- 119.9
Percent recovery is based on th	ie spike resu	lt. RPD i	s based on t	the spike and	l spike dupl	licate res	sult.		
		LCSD		Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$ $\mathbf{C}$	Result	Units Di	il. Amount	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
DRO	1	214	mg/Kg 1	250	11.2	81 (	56.9 - 119.9	10	20
Percent recovery is based on th	ie spike resu	lt. RPD i	s based on $\mathfrak{t}$	the spike and	l spike dupl	licate res	sult.		
	LCS	LCSD			Spike	LCS	LCSD	F	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\mathbf{L}$	$\operatorname{imit}$
n-Tricosane	96.5	100	mg/Kg	1	100	96	100	76.8	- 140.2
QC Batch: 102978 Prep Batch: 87234	```	Date QC F	Analyzed: Preparation:	2013-07-11 2013-07-11	Spike	- M	Anal Prep Iatrix	yzed By ared By:	KC KC
Param	F	C R	esult U	nits Dil	. Amou	nt R	esult R	ec.	Limit
GRO		1	21.0 mg	g/Kg 1	20.0	<	(2.32 1)	05 7	0 - 130
Percent recovery is based on th	ie spike resu	lt. RPD i	s based on t	the spike and	l spike dupl	icate res	sult.		
2	<b>n</b> a	LCSD	<b>TT I</b>	Spike	e Matrix		Rec.		RPD
Param	F C	Result	Units 1	Dil. Amou	nt Result	Rec.	Limit	RPD	Limit
GRO	1	20.2	mg/Kg	1 20.0	< 2.32	101	10 - 130	4	20
Percent recovery is based on th	e spike resu	lt. RPD i	s based on t	the spike and	l spike dupl	icate res	sult.		
		LCS	S LCSD		S	pike	LCS LC	CSD	Rec.
Surrogate		Resu	lt Result	Units	Dil. Ar	nount	Rec. R	ec.	Limit
Trifluorotoluene (TFT)		1.74	1 1.85	mg/Kg	1 5	2.00	87 9	$)2 \overline{7}$	0 - 130
4-Bromofluorobenzene (4-BFB)	)	1.88	3 1.89	mg/Kg	1 2	2.00	94 94	)4 7	0 - 130

Apache Bunin #006		Work Order: 13070802     Page Number: 14       Apache Bunin #006     Page Number: 14						1 1 1 1 1			
Laboratory Control Spike (	(LCS-1	L)									
QC Batch: 103041 Prep Batch: 87260			Dat QC	e Analyze Preparat	ed: 201 ion: 201	13-07-15 13-07-12			Ana Prej	lyzed By pared By	7: AR 7: AR
Param		F	С	LCS Result	Units	Dil.	Spike Amou	e M nt R	atrix esult l	Rec.	Rec. Limit
Demonst recommunic based on th	o anileo			2490	mg/Kg	I ailto and s	2500	ianto roc	.3.89 ult	100 6	55 - 115
recent recovery is based on th	ie spike	rest		) is based	on the s		pike dupi	icate res	uit.		ממח
Param	F	С	Result	t Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2640	mg/Kg	g 1	2500	<3.85	106	85 - 115	6	20
Percent recovery is based on th	е зріке	. 1030		i stora							-
Percent recovery is based on th <b>Matrix Spike (MS-1)</b> Spi QC Batch: 102932 Prep Batch: 87197	ked Sa	mple	:: 334133 Dat QC	e Analyze Preparati	d: 201 on: 201	3-07-10 3-07-09			Ana Prep	yzed By ared By	: CW : CW
Percent recovery is based on th Matrix Spike (MS-1) Spi QC Batch: 102932 Prep Batch: 87197	ked Sa	mple	:: 334133 Dat QC	e Analyze Preparati MS	d: 201 on: 201	3-07-10 3-07-09	Spike	Matr	Ana Prep	yzed By ared By	: CW : CW Rec.
Percent recovery is based on th <b>Matrix Spike (MS-1)</b> Spi QC Batch: 102932 Prep Batch: 87197 Param	ked Sa	mple	:: 334133 Dat QC C R	e Analyze Preparati MS Result	d: 201 on: 201 Units	3-07-10 3-07-09 Dil.	Spike Amount	Matr Resu	Ana Prep ix lt Rec	yzed By ared By I	: CW : CW Rec. .imit
Percent recovery is based on th <b>Matrix Spike (MS-1)</b> Spi QC Batch: 102932 Prep Batch: 87197 Param DRO	ked Sa	mple F	:: 334133 Dat QC <u>C R</u>	e Analyze Preparati MS Cesult 261	d: 201 on: 201 Units mg/Kg	3-07-10 3-07-09 Dil. 1	Spike Amount 250	Matr Resu 33.5	Ana Prep ix lt Rec 5 91	yzed By ared By I 36.1	: CW : CW Rec. .imit - 147.2
Percent recovery is based on th Matrix Spike (MS-1) Spi QC Batch: 102932 Prep Batch: 87197 Param DRO Percent recovery is based on th	ked Sa	F	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	e Analyze Preparati MS tesult 261 ) is based	d: 201 on: 201 Units mg/Kg on the sp	3-07-10 3-07-09 Dil. 1 pike and s	Spike Amount 250 pike dupl	Matr Resu 33.: icate res	Ana Prep ix lt Rec 5 91 ult.	yzed By ared By I 36.1	: CW : CW Rec. .imit - 147.2
Percent recovery is based on th Matrix Spike (MS-1) Spi QC Batch: 102932 Prep Batch: 87197 Param DRO Percent recovery is based on th	ked Sa	mple F	:: 334133 Dat QC <u>C R</u> 1 ult. RPD MSD	e Analyze Preparati MS Result 261	d: 201 on: 201 <u>Units</u> mg/Kg on the sp	3-07-10 3-07-09 Dil. 1 pike and s Spike	Spike <u>Amount</u> 250 pike dupl Matrix	Matr Resu 33.5 icate res	Ana Prep ix lt Rec 5 91 ult. Rec.	yzed By ared By I 36.1	: CW : CW Rec. .imit - 147.2 RPD
Percent recovery is based on th Matrix Spike (MS-1) Spi QC Batch: 102932 Prep Batch: 87197 Param DRO Percent recovery is based on th Param	ked Sa ked Sa ke spike	mple F Prest	$\frac{1}{1}$	e Analyze Preparati MS Cesult 261 D is based Units	d: 201 on: 201 Units mg/Kg on the sp Dil. A	3-07-10 3-07-09 Dil. 1 pike and s Spike Amount	Spike Amount 250 pike dupl Matrix Result	Matr Resu 33.5 icate res Rec.	Ana Prep It Rec 5 91 ult. Rec. Limit	yzed By ared By I 36.1 RPD	: CW : CW Rec. .imit - 147.2 RPD Limit
Percent recovery is based on th Matrix Spike (MS-1) Spi QC Batch: 102932 Prep Batch: 87197 Param DRO Param DRO	ked Sa e spike	F rest rest	$\frac{1}{261}$	e Analyze Preparati MS Result 261 ) is based Units mg/Kg	d: 201 on: 201 Units mg/Kg on the sp Dil. 4 1	3-07-10 3-07-09 Dil. 1 pike and s Spike Amount 250	Spike Amount 250 pike dupl Matrix Result 33.5	Matr Resu 33.: icate res Rec. 91 3	Ana Prep ix <u>lt Rec</u> 5 91 ult. Rec. Limit 6.1 - 147.2	yzed By ared By I 36.1 RPD 0	: CW : CW Rec. .imit - 147.2 RPD Limit 20
Percent recovery is based on th Matrix Spike (MS-1) Spi QC Batch: 102932 Prep Batch: 87197 Param DRO Percent recovery is based on th Param DRO Percent recovery is based on th	ked Sa ked Sa e spike	$\frac{C}{1}$	$ \begin{array}{c} \text{int. In } D \\ \text{int. 334133} \\ \text{Dat.} \\ \text{QC} \\ \\ \text{QC} \\ \\ \\ \text{C} \\ \text{Result} \\ \\ \\ \hline \\ \text{MSD} \\ \\ \\ \hline \\ \text{Result} \\ \\ \hline \\ 261 \\ \\ \\ \text{ilt. RPD} \end{array} $	e Analyze Preparati MS Result 261 D is based Units mg/Kg D is based	d: 201 on: 201 Units mg/Kg on the sp Dil. 4 1 on the sp	3-07-10 3-07-09 Dil. 1 pike and s Spike Amount 250 pike and s	Spike Amount 250 pike dupl Matrix Result 33.5 pike dupl	Matr Resu 33.3 icate res Rec. 91 3 icate res	Ana Prep ix lt Rec 5 91 ult. Rec. Limit 6.1 - 147.2 ult.	yzed By ared By I 36.1 RPD 0	: CW : CW Rec. .imit - 147.2 RPD Limit 20
Percent recovery is based on th Matrix Spike (MS-1) Spi QC Batch: 102932 Prep Batch: 87197 Param DRO Percent recovery is based on th Param DRO Percent recovery is based on th	ked Sa ked Sa e spike F ke spike	$\frac{F}{\frac{C}{1}}$	$\frac{1}{261}$	e Analyze Preparati MS Result 261 ) is based <u>Units</u> mg/Kg ) is based	d: 201 on: 201 Units mg/Kg on the sp Dil. 4 1 on the sp	3-07-10 3-07-09 Dil. 1 pike and s Spike Amount 250 pike and s	Spike Amount 250 pike dupl Matrix Result 33.5 pike dupl Spike	Matr Resu 33.5 icate res <u>Rec.</u> 91 3 icate res MS	Ana Prep ix lt Rec 5 91 ult. <u>Rec. Limit 6.1 - 147.2</u> ult. MSD	yzed By ared By I 36.1 RPD 0	: CW : CW Rec. .imit - 147.2 RPD Limit 20 Rec.
Percent recovery is based on th Matrix Spike (MS-1) Spi QC Batch: 102932 Prep Batch: 87197 Param DRO Percent recovery is based on th Param DRO Percent recovery is based on th Surrogate	ked Sa ked Sa e spike F ke spike Mi Res	$\frac{F}{c}$	E 334133 Dat- QC C R It. RPD MSD Result 261 It. RPD MSD Result 261 It. RPD	e Analyze Preparati MS tesult 261 ) is based Units mg/Kg ) is based ) lt Un	d: 201 on: 201 Units mg/Kg on the sp <u>Dil. 4</u> 1 on the sp nits	3-07-10 3-07-09 Dil. 1 pike and s Spike Amount 250 pike and s Dil.	Spike Amount 250 pike dupl Matrix Result 33.5 pike dupl Spike Amount	Matr Resu 33.: icate res 91 3 icate res MS Rec.	Ana Prep ix <u>lt Rec</u> 5 91 ult. <u>Rec. Limit</u> 6.1 - 147.2 ult. MSD Rec.	yzed By ared By I 36.1 RPD 0	: CW : CW Rec. .imit - 147.2 RPD Limit 20 Rec. .imit

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Matrix Spik	æ (MS-1)	Spiked Sample: 334137			
QC Batch:	102978	Date Analyzed:	2013-07-11	Analyzed By:	KC
Prep Batch:	87234	QC Preparation:	2013-07-11	Prepared By:	KC

s.

ParamFCMS ResultSpike UnitsMatrix Dil.Rec. AmountRec. ResultLimit GRO $1$ $16.1$ mg/Kg $1$ $20.0$ $< 2.32$ $80$ $70 - 130$ Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result. $MSD$ ResultSpike UnitsMatrix MatrixRec. LimitRPD Limit $Rec.$ RPDRPD LimitParamFCResult ResultUnitsDil. ManountAmount ResultRec. ResultRec. LimitRPD Result $Rec.$ LimitRPD LimitParamFCResult ResultUnitsDil. ParamAmount ResultRec. ResultRec. LimitRPD LimitParamFCResult ResultResult ResultUnitsDil. ParamAmount ResultRec. ResultRec. LimitRec. LimitSurrogateResultResult ResultResult ResultUnitsDil. ParamAmount Rec.Rec. Rec. LimitMatrix Spike (MS-1)Spiked Sample: $334155$ Spike QC Preparation: $2013-07-15$ Analyzed By: ParamARParamFCResultUnitsDil. ParamAmount ResultRec. Rec. LimitLimit Prepared By:ARParamFCResultUnitsDil. ParamAmount ResultRec. Rec. LimitLimit Prepared By:ArParam<	Report Date: July 15, 2013 Apache Bunin #006				Work Apa	Order: che Bun	13070802 in #006	_			Page	e Numbe	:: 15 of 20 NM
ParamFCResultOntsDit.AmountResultRec.LinitGRO116.1mg/Kg120.0<2.328070 - 130Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.ParamFCResultUnitsDil.AmountResultRec.RPDParamFCResultUnitsDil.AmountResultRec.InitiRPDGRO117.5mg/Kg120.0<2.328870 - 130820Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.SurrogateMSMSDSpikeMSMSDRec.SurrogateResultResultUnitsDil.AmountRec.LimitTrifluorotoluene (TFT)1.801.77mg/Kg12908870 - 1304-Broinofluorobenzene (4-BFB)1.821.87mg/Kg12919470 - 130Matrix Spike (MS-1)Spiked Sample:334155QCPreparation:2013-07-15Analyzed By:ARPrep Batch:87260QCPreparation:2013-07-12Prepared By:ARParamFCResultUnitsDil.AmountResultRec.LimitChloride2610mg/Kg52500<19.210478.9 - 121ParamF </th <th>Demonst</th> <th></th> <th>Ľ,</th> <th>0 1</th> <th>MS</th> <th>TT</th> <th></th> <th>C A</th> <th>Spike</th> <th>M</th> <th>latrix</th> <th>Dec</th> <th>Rec.</th>	Demonst		Ľ,	0 1	MS	TT		C A	Spike	M	latrix	Dec	Rec.
InterpretationNon $MSD$ Non $MS$ NSDNon $MSD$ Non $MS$ NSDNon $MS$ NSDNSDNon $MS$ MSDNSDNon $MS$ MSDNSD <t< td=""><td>GBO</td><td></td><td>F</td><td><u> </u></td><td><math>\frac{161}{161}</math></td><td>0m</td><td><math>\frac{115}{K\sigma}</math> 1</td><td>. A</td><td>20.0</td><td></td><td>1000000000000000000000000000000000000</td><td><u> </u></td><td>70 - 130</td></t<>	GBO		F	<u> </u>	$\frac{161}{161}$	0m	$\frac{115}{K\sigma}$ 1	. A	20.0		1000000000000000000000000000000000000	<u> </u>	70 - 130
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.MSDSpike AmountMatrix ResultRec. ResultRPD LimitGRO117.5mg/Kg120.0<2.32	Brown in the state	•1			10.1	/	<u>ng</u> 1	1 1 .	20.0				10 - 100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Percent recovery is based on the s	ріке	resu	lit. RPD	is base	ea on th	e spike and	i spike	aupica	ate res	suit.		
ParamFCResultUnitsDil.AmountResultRec.LimitRPDLimitGRO117.5mg/Kg120.0 $< 2.32$ 8870 - 130820Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.SpikeMSMSDRec.SurrogateResultResultUnitsDil.AmountRec.Rec.LimitTrifluorotoluene (TFT)1.801.77mg/Kg12908870 - 1304-Bromofluorobenzene (4-BFB)1.821.87mg/Kg12919470 - 130Matrix Spike (MS-1)Spiked Sample:334155334155Analyzed:2013-07-15Analyzed By:ARPrep Batch:103041DateAnalyzed:2013-07-12Prepared By:ARParamFCResultUnitsDil.AmountResultRec.LimitChloride2610mg/Kg52500<19.2				MSD			Spike	e Ma	atrix		Rec	•	RPD
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Param	F	С	Result	Uni	ts Di	l. Amou	nt Ro	esult	Rec.	Limi	t RPI	D Limit
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.SurrogateMSMSDSpikeMSMSDRec.Trifluorotoluene (TFT)1.801.77mg/Kg12908870 - 1304-Bromofluorobenzene (4-BFB)1.821.87mg/Kg12919470 - 130Matrix Spike (MS-1)Spiked Sample: 334155QC Batch:103041Date Analyzed:2013-07-15Analyzed By:ARPrep Batch:87260QC Preparation:2013-07-12Prepared By:ARMarmFCResultUnitsDil.AmountResultRec.LimitChloride2610mg/Kg52500<19.2	GRO		1	17.5	mg/	Kg 1	20.0	<	2.32	88	70 - 1	30 8	20
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Percent recovery is based on the sp	pike	resu	lt. RPD	is base	ed on the	e spike and	l spike	duplica	ate res	ult.		
SurrogateResultResultResultUnitsDil.AmountRec.Rec.LimitTrifluorotoluene (TFT) $1.80$ $1.77$ $mg/Kg$ $1$ $2$ $90$ $88$ $70 - 130$ 4-Bromofluorobenzene (4-BFB) $1.82$ $1.87$ $mg/Kg$ $1$ $2$ $91$ $94$ $70 - 130$ Matrix Spike (MS-1)Spiked Sample: $334155$ QC Batch: $103041$ Date Analyzed: $2013-07-15$ Analyzed By:ARPrep Batch: $87260$ QC Preparation: $2013-07-12$ Prepared By:ARParamFCResultUnitsDil.AmountResultRec.LimitChloride $2610$ $mg/Kg$ $5$ $2500$ $<19.2$ $104$ $78.9 - 121$ Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.RPDLimitParamFCResultUnitsDil.AmountRec.RPDParamFCResultUnitsDil.AmountRec.RPDLimitChloride $2430$ $mg/Kg$ $5$ $2500$ $<19.2$ $97$ $78.9 - 121$ $7$ $20$				М	S	MSD			Sp	ike	MS	MSD	Rec.
Trifluorotoluene (TFT) $1.80$ $1.77$ $mg/Kg$ $1$ $2$ $90$ $88$ $70 - 130$ 4-Bromofluorobenzene (4-BFB) $1.82$ $1.87$ $mg/Kg$ $1$ $2$ $91$ $94$ $70 - 130$ Matrix Spike (MS-1)Spiked Sample: $334155$ QC Batch: $103041$ Date Analyzed: $2013-07-15$ Analyzed By: ARPrep Batch: $87260$ QC Preparation: $2013-07-12$ Prepared By: ARParamFCResultUnitsDil.AmountResultRec.LimitChloride $2610$ $mg/Kg$ $5$ $2500$ $<19.2$ $104$ $78.9 - 121$ Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.Rec.RPDParamFCResultUnitsDil.AmountResultRPDLimitChloride $2430$ $mg/Kg$ $5$ $2500$ $<19.2$ $97$ $78.9 - 121$ $7$ $20$	Surrogate			Res	sult	Result	Units	Dil.	Am	ount	Rec.	Rec.	$\operatorname{Limit}$
4-Bromofluorobenzene (4-BFB) $1.82$ $1.87$ $mg/Kg$ $1$ $2$ $91$ $94$ $70 - 130$ Matrix Spike (MS-1)Spiked Sample: $334155$ QC Batch: $103041$ Date Analyzed: $2013-07-15$ Analyzed By:ARPrep Batch: $87260$ QC Preparation: $2013-07-12$ Prepared By:ARParamFCResultUnitsDil.AmountResultRec.LimitChloride $2610$ $mg/Kg$ $5$ $2500$ $<19.2$ $104$ $78.9 - 121$ Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.RPDLimitParamFCResultUnitsDil.AmountRec.RPDLimitChloride $2430$ $mg/Kg$ $5$ $2500$ $<19.2$ $97$ $78.9 - 121$ $7$ $20$	Trifluorotoluene (TFT)			1.8	80	1.77	mg/Kg	1	4	2	90	88	70 - 130
Matrix Spike (MS-1)Spiked Sample: 334155QC Batch:103041Date Analyzed:2013-07-15Analyzed By:ARPrep Batch:87260QC Preparation:2013-07-12Prepared By:ARParamFCResultUnitsDil.AmountResultRec.LimitChloride2610mg/Kg52500<19.2	4-Bromofluorobenzene (4-BFB)			1.8	82	1.87	mg/Kg	1	4	2	91	94	70 - 130
QC Batch:103041 Prep Batch:Date Analyzed: $2013-07-15$ QC Preparation:Analyzed By:AR Prepared By:ParamFCResultUnitsDil.AmountResultRec.LimitChloride2610mg/Kg52500<19.210478.9 - 121Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.Rec.RPDParamFCResultUnitsDil.AmountRec.RPDParamFCResultUnitsDil.AmountResultRPDLimitChloride2430mg/Kg52500<19.29778.9 - 121720	Matrix Spike (MS-1) Spiked	l Sa	mple	: 334155									
Prep Batch: $87260$ QC Preparation: $2013-07-12$ Prepared By:ARMSSpikeMatrixRec.ParamFCResultUnitsDil.AmountResultRec.LimitChloride $2610$ mg/Kg5 $2500$ $<19.2$ $104$ $78.9 - 121$ Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.Rec.RPDParamFCResultUnitsDil.AmountResultRec.RPDParamFCResultUnitsDil.AmountResultRPDLimitChloride $2430$ mg/Kg5 $2500$ $<19.2$ $97$ $78.9 - 121$ $7$ $20$	QC Batch: 103041			Date	e Analy	zed:	2013-07-15				А	nalvzed	3v: AR
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Prep Batch: 87260			QCI	Prepar	ation:	2013-07-12				Р	repared 1	By: AR
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					MS			$\mathbf{S}_{\mathbf{I}}$	oike	Ma	trix		Rec.
Chloride       2610       mg/Kg       5       2500       <19.2       104       78.9 - 121         Percent recovery is based on the spike result.       RPD is based on the spike and spike duplicate result.       MSD       Spike       Matrix       Rec.       RPD         Param       F       C       Result       Units       Dil.       Amount       Result       ReD       Limit         Chloride       2430       mg/Kg       5       2500       <19.2	Param		F	C R	esult	Unit	s Dil.	Am	ount	Res	sult	Rec.	Limit
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.         MSD       Spike       Matrix       Rec.       RPD         Param       F       C       Result       Units       Dil.       Amount       Result       Rec.       Limit       RPD       Limit         Chloride       2430       mg/Kg       5       2500       <19.2       97       78.9 - 121       7       20	Chloride			2	2610	mg/ŀ	íg 5	2	500	<1	9.2	104	78.9 - 121
MSDSpikeMatrixRec.RPDParamFCResultUnitsDil.AmountResultRec.LimitRPDLimitChloride2430mg/Kg52500<19.2	Percent recovery is based on the sp	pike	resu	lt. RPD	is base	d on the	e spike and	l spike	duplica	ate res	ult.		
ParamFCResultUnitsDil.AmountResultRec.LimitRPDLimitChloride2430mg/Kg52500<19.2				MSD			Spike	Mat	trix		Bec.		RPD
Chloride 2430 mg/Kg 5 2500 <19.2 97 78.9 - 121 7 20	Param	F	С	Result	Unit	s Dil	Amount	t. Res	ult l	Rec.	Limit	RPI	D Limit
	Chloride			2430	mg/k	íg 5	2500	<1	9.2	97	78.9 - 1	21 7	20

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

Report Date: July 15, 2013 Apache Bunin #006

# **Calibration Standards**

# Standard (CCV-1)

QC Batch:	102932		Date	Analyzed:	2013-07-10		Analyzed By: CW		
				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	
Param	$\operatorname{Flag}$	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
DRO		1	mg/Kg	250	208	83	80 - 120	2013-07-10	

# Standard (CCV-2)

QC Batch:	102932		Date	Analyzed:	2013-07-10		Analyzed By: CW		
				CCVs Truc	CCVs Found	CCVs Percent	Percent Recovery	Date	
Param	Flag	$\operatorname{Cert}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
DRO		1	mg/Kg	250	275	110	80 - 120	2013-07-10	

# Standard (CCV-3)

QC Batch:	102932		Date	Analyzed:	2013-07-10		Analyzed By: CW		
				CCVs	CCVs	CCVs	Percent		
				True	Found	Percent	Recovery	Date	
Param	Flag	$\operatorname{Cert}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
DRO		1	mg/Kg	250	241	96	80 - 120	2013-07-10	

# Standard (CCV-4)

QC Batch: 102932			Date Analyzed:				Analyzed By: CW		
				CCVs True	CCVs Found	$\operatorname{CCVs}$	Percent Recovery	Date	
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
DRO	• • •	1	mg/Kg	250	221	88	80 - 120	2013-07-10	

Report Dat Apache Bu	te: July 15, 2013 nin #006			Work Orde Apache B		Page Number: 17 of 20 NM		
Standard	(CCV-1)							
QC Batch:	102978		Date	Analyzed:	2013-07-11		Analy	zed By: KC
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.10	110	80 - 120	2013-07-11
Standard	(CCV-2)							
QC Batch:	102978		Date	Analyzed:	2013-07-11		Analy	zed By: KC
				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param GRO	Flag	Cert	Units mg/Kg	Conc. 1.00	Conc. 1.03	Recovery 103	Limits 80 - 120	Analyzed 2013-07-11
Standard	(CCV-3)							
QC Batch:	102978		Date	Analyzed:	2013-07-11		Analy	zed By: KC
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.957	90	80 - 120	2013-07-11
Standard	(CCV-1)							
QC Batch:	103041		Date	Analyzed:	2013-07-15		Analy	zed By: AR
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-15

# Standard (CCV-2)

QC Batch: 103041

Date Analyzed: 2013-07-15

Analyzed By: AR

Report Date: Apache Bunin	July 15, 2013 #006		Work Order: 13070802 Apache Bunin #006					mber: 18 of 20 NM
-				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	$\operatorname{Cert}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2013-07-15

Work Order: 13070802 Apache Bunin #006 Page Number: 19 of 20 NM

# Appendix

# **Report Definitions**

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

# Laboratory Certifications

	Certifying	Certification	Laboratory
$\mathbf{C}$	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

# Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then 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.
- Qsr Surrogate recovery outside of laboratory limits.
- U The analyte is not detected above the SDL

# Attachments

Report Date: July 15, 2013 Apache Bunin #006 Work Order: 13070802 Apache Bunin #006 Page Number: 20 of 20 NM

The scanned attachments will follow this page.

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

LAB Order ID # 13070802

LAB Ord	der ID #	802																									Ра	ge			of_			
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LAB # (LAB USE) ONLY	FIELD CODE	# CONTAINEF	Volume / Amo	WATER	SOIL	SLUDGE		HCI	HNU3	H <sub>2</sub> SO <sub>4</sub>	NaUH ICF	NONE		DATE	TIME	MTBE 8021	BTEX 8021/	TPH 8015 GR	PAH 8270 / 62	Total Metais Ag A	TCLP Metals /	TCLP Semi Vo	TCLP Pesticid	RCI GC/MS Vol 83	GC/MS Semi.	PCB's 8082 / (	Pesticides 808	Moisture Conte	CDF SO4 NC	Na, La, Mg, N			Turn Around Ti	Hold
334150	Point 1@ Surt	Lace 1	402		X	-								7-3-B	11:00			X											K					
15)	Point 2@ Sur.	face 1	4.z		X									7-3-13	11:05			A	1										X			$\square$		
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# Appendix C Final Laboratory Analyses

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RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967



WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Steven Fleming Apache Corp.-Midland 303 Veterans Airpark Lane Suite #3000 Midland, TX, 79705

Report Date: July 31, 2013

Work Order: 13071723

Project Location:NMProject Name:Apache Bunin #006Project Number:Apache Bunin #006

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

Sample         Description         Matrix         Taken         Taken         Received           335466         Pasture 5 pt. Comp. @ 6"         soil         2013-07-12         00:00         2013-07-15           335467         Pasture North Wall         soil         2013-07-12         00:00         2013-07-15           335468         Pasture South Wall         soil         2013-07-11         00:00         2013-07-15           335469         Pasture West Wall         soil         2013-07-11         00:00         2013-07-15           335470         Pad 5 pt. Comp. @ 2'         soil         2013-07-12         00:00         2013-07-15           335471         Pad North Wall         soil         2013-07-12         00:00         2013-07-15           335472         Pad East Wall         soil         2013-07-12         00:00         2013-07-15           335473         Pad West Wall         soil         2013-07-12         00:00         2013-07-15				Date	Time	Date
335466Pasture 5 pt. Comp. @ 6"soil2013-07-1200:002013-07-15335467Pasture North Wallsoil2013-07-1200:002013-07-15335468Pasture South Wallsoil2013-07-1100:002013-07-15335469Pasture West Wallsoil2013-07-1100:002013-07-15335470Pad 5 pt. Comp. @ 2'soil2013-07-1200:002013-07-15335471Pad North Wallsoil2013-07-1200:002013-07-15335472Pad East Wallsoil2013-07-1200:002013-07-15335473Pad West Wallsoil2013-07-1200:002013-07-15	Sample	Description	Matrix	Taken	Taken	Received
335467Pasture North Wallsoil2013-07-1200:002013-07-15335468Pasture South Wallsoil2013-07-1100:002013-07-15335469Pasture West Wallsoil2013-07-1100:002013-07-15335470Pad 5 pt. Comp. @ 2'soil2013-07-1200:002013-07-15335471Pad North Wallsoil2013-07-1200:002013-07-15335472Pad East Wallsoil2013-07-1200:002013-07-15335473Pad West Wallsoil2013-07-1200:002013-07-15	335466	Pasture 5 pt. Comp. @ 6"	soil	2013-07-12	00:00	2013-07-15
335468Pasture South Wallsoil2013-07-1100:002013-07-15335469Pasture West Wallsoil2013-07-1100:002013-07-15335470Pad 5 pt. Comp. @ 2'soil2013-07-1200:002013-07-15335471Pad North Wallsoil2013-07-1200:002013-07-15335472Pad East Wallsoil2013-07-1200:002013-07-15335473Pad West Wallsoil2013-07-1200:002013-07-15	335467	Pasture North Wall	soil	2013-07-12	00:00	2013-07-15
335469Pasture West Wallsoil2013-07-1100:002013-07-15335470Pad 5 pt. Comp. @ 2'soil2013-07-1200:002013-07-15335471Pad North Wallsoil2013-07-1200:002013-07-15335472Pad East Wallsoil2013-07-1200:002013-07-15335473Pad West Wallsoil2013-07-1200:002013-07-15	335468	Pasture South Wall	soil	2013-07-11	00:00	2013-07-15
335470Pad 5 pt. Comp. @ 2'soil2013-07-1200:002013-07-15335471Pad North Wallsoil2013-07-1200:002013-07-15335472Pad East Wallsoil2013-07-1200:002013-07-15335473Pad West Wallsoil2013-07-1200:002013-07-15	335469	Pasture West Wall	soil	2013-07-11	00:00	2013-07-15
335471Pad North Wallsoil2013-07-1200:002013-07-15335472Pad East Wallsoil2013-07-1200:002013-07-15335473Pad West Wallsoil2013-07-1200:002013-07-15	335470	Pad 5 pt. Comp. @ 2'	soil	2013-07-12	00:00	2013-07-15
335472Pad East Wallsoil2013-07-1200:002013-07-15335473Pad West Wallsoil2013-07-1200:002013-07-15	335471	Pad North Wall	soil	2013-07-12	00:00	2013-07-15
335473         Pad West Wall         soil         2013-07-12         00:00         2013-07-15	335472	Pad East Wall	soil	2013-07-12	00:00	2013-07-15
	335473	Pad West Wall	soil	2013-07-12	00:00	2013-07-15

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

This report consists of a total of 24 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blain Leptinich +

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

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# Case Narrative

Samples for project Apache Bunin #006 were received by TraceAnalysis, Inc. on 2013-07-15 and assigned to work order 13071723. Samples for work order 13071723 were received intact at a temperature of 8.0 C.

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

		Prep	Prep	$\rm QC$	Analysis
Test	Method	$\operatorname{Batch}$	Date	Batch	Date
Chloride (Titration)	SM 4500-Cl B	87702	2013-07-29 at 10:00	103497	2013-07-29 at 13:00
Chloride (Titration)	SM 4500-Cl B	87763	2013-07-29 at $10:00$	103583	2013-07-29 at $13:00$
TPH DRO - NEW	S 8015 D	87442	2013-07-18 at $12:00$	103202	2013-07-19 at 12:46
TPH GRO	S 8015 D	87471	2013-07-19 at $17:24$	103234	2013-07-19 at 17:24

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 13071723 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: July 31, 2013 Apache Bunin #006 Work Order: 13071723 Apache Bunin #006

# Analytical Report

### Sample: 335466 - Pasture 5 pt. Comp. @ 6"

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock Chloride (Titration) 103497 87702	Analytic Date An Sample I	al Method: alyzed: Preparation:	SM 4500-Cl B 2013-07-29 2013-07-29	Prep Method: Analyzed By: Prepared By:	N/A GS GS
			RL			
Parameter	Flag	$\operatorname{Cert}$	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride			52.0	mg/Kg	1	5.00

### Sample: 335466 - Pasture 5 pt. Comp. @ 6"

·,

Laboratory:								
Analysis:	TPH DRO - N	EW	Ana	lytical Meth	od: S 8015	5 D	Prep Me	ethod: N/A
QC Batch:	103202		Date	e Analyzed:	2013-0	)7-19	Analyzed	d By: CM
Prep Batch:	87442	·	Sam	ple Preparat	ion: 2013-0	)7-18	Preparec	d By: CM
					RL			
Parameter		Flag	Cert	Res	ult	Units	Dilution	$\operatorname{RL}$
DRO		$\mathbf{Q}_{\mathbf{S}}$	1	<5	0.0	mg/Kg	1	50.0
-	-	~				Spike	Percent	Recovery
Surrogate	Flag	$\operatorname{Cert}$	Result	Units	Dilution	$\operatorname{Amount}$	Recovery	Limits
			06 5	malka	1	100	06	70 120

### Sample: 335466 - Pasture 5 pt. Comp. @ 6"

Laboratory:	Lubbock									
Analysis:	TPH GRO			Analytic	al Metho	d: S 801	5 D		Prep Meth	od: S 5035
QC Batch:	103234			Date An	alyzed:	2013-0	)7-19		Analyzed I	By: MT
Prep Batch:	87471			Sample	Preparati	on: 2013-0	07-19		Prepared E	By: MT
						$\mathbf{RL}$				
Parameter		Flag		$\operatorname{Cert}$		Result	Uni	its	Dilution	$\operatorname{RL}$
GRO		U		1		<4.00	mg/ł	Кg	1	4.00
								Spike	Percent	Recovery
Surrogate		Ι	Flag	$\operatorname{Cert}$	Result	Units	Dilution	$\operatorname{Amount}$	Recovery	Limits
Trifluorotolu	ene (TFT)				2.05	mg/Kg	1	2.00	102	69.6 - 124
							cont	inued		

Report Date: July 31, 2013 Apache Bunin #006		·	Work Orde Apache E	Page Number: 6 of 24 NM				
sample continued						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	77.7 - 120

### Sample: 335467 - Pasture North Wall

Chloride				9.00	m mg/Kg	1	5.00
Parameter		Flag	$\operatorname{Cert}$	RL Result	Units	Dilution	RL
Prep Batch:	87702		Sample I	Preparation:	2013-07-29	Prepared By:	GS
QC Batch:	103497		Date An	alyzed:	2013-07-29	Analyzed By:	GS
Analysis:	Chloride (Titr	ation)	Analytic	al Method:	SM 4500-Cl B	Prep Method:	N/A
Laboratory:	Lubbock						

# Sample: 335467 - Pasture North Wall

n-Tricosane			98.6	mg/Kg	1	100	99	70 - 130
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
						Spike	Percent	Recovery
DRO		Qs, U	1	<5	0.0	mg/Kg	1	50.0
Parameter		Flag	Cert	] Res	RL ult	Units	Dilution	RL
QC Batch: Prep Batch:	103202 87442		Date Sam	e Analyzed: ple Preparat	2013-0 ion: 2013-0	)7-19 )7-18	Analyzeo Prepareo	l By: CM l By: CM
Laboratory: Analysis:	Lubbock TPH DRO - NE	W	Ana	lvtical Metho	od: S 8015	5 D	Prep Me	thod: N/A

# Sample: 335467 - Pasture North Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH GRO 103234 87471		Analytical M Date Analyz Sample Prep	Iethod:         S 801           ed:         2013-0           aration:         2013-0	5 D )7-19 )7-19	Prep Method: Analyzed By: Prepared By:	S 5035 MT MT
				$\mathbf{RL}$			
Parameter		Flag	$\operatorname{Cert}$	Result	Units	Dilution	RL
GRO		U	1	<4.00	mg/Kg	1	4.00

Report Date: July 31, 2013 Apache Bunin #006		1	Page Number: 7 of 24 NM					
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)			1.75 1.88	mg/Kg mg/Kg	1 1	$2.00 \\ 2.00$	88 94	69.6 - 124 77.7 - 120

# Sample: 335468 - Pasture South Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock Chloride (Titration) 103497 87702	Ana Dat Sam	lytical Method: e Analyzed: ple Preparation:	SM 4500-Cl B 2013-07-29 2013-07-29	Prep Method: Analyzed By: Prepared By:	N/A GS GS
			$\operatorname{RL}$			
Parameter	Flag	$\operatorname{Cert}$	Result	Units	Dilution	RL
Chloride			24.0	mg/Kg	1	5.00

### Sample: 335468 - Pasture South Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH DRO - N 103202 87442	EW	Ana Data Sam	lytical Meth e Analyzed: ple Prepara	od: S 8013 2013-( tion: 2013-(	5 D )7-19 )7-18	Prep Metl Analyzed Prepared	nod: N/A By: CM By: CM
					RL			
Parameter		Flag	Cert	Re	sult	Units	Dilution	RL
DRO		Qs,U	1	<5	50.0	mg/Kg	1	50.0
Surrogato	Floor	Cort	Bosult	Unite	Dilution	Spike A mount	Percent	Recovery
Surrogate	riag	Cert	102		Ditution	Allount	102	70 120
n-Tricosane			103	mg/Kg	1	100	103	70 - 130

### Sample: 335468 - Pasture South Wall

GRO		U	1	<4.00	mg/Kg	1	4.00
Parameter		Flag	Cert	Result	Units	Dilution	$\operatorname{RL}$
1				DI			
Prep Batch:	87471		Sample Prep	aration: 2013-0	7-19	Prepared By:	MT
QC Batch:	103234		Date Analyz	ed: 2013-0	07-19	Analyzed By:	MT
Analysis:	TPH GRO		Analytical N	Iethod: S 8013	5 D	Prep Method:	S 5035
Laboratory:	Lubbock						

Report Date: July 31, 2013 Apache Bunin #006	Work Order: 13071723 Apache Bunin #006							Page Number: 8 of 24 NM		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits		
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	69.6 - 124		
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	77.7 - 120		

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### Sample: 335469 - Pasture West Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock Chloride (Titration) 103497 87702		Analyti Date An Sample	cal Method: nalyzed: Preparation:	SM 4500-Cl B 2013-07-29 2013-07-29	Prep Method: Analyzed By: Prepared By:	N/A GS GS
				$\operatorname{RL}$			
Parameter	F	lag	Cert	$\operatorname{Result}$	Units	Dilution	RL
Chloride	·····			28.0	mg/Kg	1	5.00

# Sample: 335469 - Pasture West Wall

n-Tricosane			98.7	mg/Kg	1	100	99	70 - 130
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
DRO		Qs,U	1	<5	0.0	mg/Kg	1	50.0
Parameter		Flag	$\operatorname{Cert}$	Res	RL ult	Units	Dilution	RL
Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH DRO - NE <sup>v</sup> 103202 87442	W	Ana Dat Sam	lytical Methe e Analyzed: pple Preparat	od: S 8015 2013-0 ion: 2013-0	5 D 17-19 17-18	Prep Me Analyzec Preparec	thod: N/A l By: CM l By: CM

# Sample: 335469 - Pasture West Wall

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GRO		U	1	<4.00	mg/Kg	1	4.00
Parameter		Flag	Cert	Result	Units	Dilution	RL
				$\mathbf{RL}$			
Prep Batch:	87471		Sample Prep	paration: 2013-07	7-19	Prepared By:	MT
QC Batch:	103234		Date Analyz	ed: 2013-07	7-19	Analyzed By:	MΤ
Analysis:	TPH GRO		Analytical M	Iethod: S 8015	D	Prep Method:	S 5035
Laboratory:	Lubbock						

Report Date: July 31, 2013 Apache Bunin #006	Work Order: 13071723 Apache Bunin #006						Page Number: 9 of 24 NM		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotoluene (TFT)			2.21	mg/Kg	1	2.00	110	69.6 - 124	
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	77.7 - 120	

# Sample: 335470 - Pad 5 pt. Comp. @ 2'

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Laboratory: Analysis: QC Batch: Prep Batch:	Laboratory: Lubbock Analysis: Chloride (Titration) QC Batch: 103497 Prep Batch: 87702		Analy Date A Sampl	tical Method: Analyzed: e Preparation:	SM 4500-Cl B 2013-07-29 2013-07-29	Prep Method: Analyzed By: Prepared By:	N/A GS GS
				RL			
Parameter		Flag	$\operatorname{Cert}$	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride				90.0	mg/Kg	1	5.00

# Sample: 335470 - Pad 5 pt. Comp. @ 2'

n-Tricosano	8	0010	96.0	mg/Kg	1	100	96	70 - 130
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
DRO		Qs,U	1	<5	0.0	mg/Kg	1	50.0
Parameter		Flag	Cert	Res	RL ult	Units	Dilution	RL
Analysis: QC Batch: Prep Batch:	TPH DRO - NEV 103202 87442	W	Ana Date Sam	lytical Methe e Analyzed: ple Preparat	od: S 8015 2013-0 ion: 2013-0	5 D 97-19 97-18	Prep Me Analyzec Preparec	thod: N/A d By: CM d By: CM

# Sample: 335470 - Pad 5 pt. Comp. @ 2'

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH GRO 103234 87471		Analytical M Date Analyz Sample Prep	Iethod: S 8015 ed: 2013-07 aration: 2013-07	D 7-19 7-19	Prep Method: Analyzed By: Prepared By:	S 5035 MT MT
				RL			
Parameter		Flag	$\operatorname{Cert}$	$\operatorname{Result}$	Units	Dilution	$\operatorname{RL}$
GRO		U	1	<4.00	mg/Kg	1	4.00

Report Date: July 31, 2013 Apache Bunin #006		Work Order: 13071723 Apache Bunin #006						Page Number: 10 of 24 NM		
Surrogate	Flag	$\operatorname{Cert}$	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits		
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	69.6 - 124		
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	77.7 - 120		

# Sample: 335471 - Pad North Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock Chloride (Titration) 103497 87702	Analytic Date An Sample	al Method: alyzed: Preparation:	SM 4500-Cl B 2013-07-29 2013-07-29	Prep Method: Analyzed By: Prepared By:	N/A GS GS
			$\operatorname{RL}$			
Parameter	Flag	$\operatorname{Cert}$	$\operatorname{Result}$	Units	Dilution	$\mathbf{RL}$
Chloride			57.0	mg/Kg	1	5.00

# Sample: 335471 - Pad North Wall

Laboratory:	Lubbock							
Analysis:	TPH DRO - NE	W	Ana	lytical Meth	od: S 8015	5 D	Prep Me	thod: N/A
QC Batch:	103202		Dat	e Analyzed:	2013-0	)7-19	Analyze	d By: CM
Prep Batch: 87442		San	iple Preparat	ion: 2013-0	)7-18	Prepareo	i By: CM	
					RL			
Parameter		Flag	$\operatorname{Cert}$	Res	sult	Units	Dilution	$\operatorname{RL}$
DRO		Qs,U	1	<5	0.0	mg/Kg	1	50.0
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	$\mathbf{Units}$	Dilution	$\operatorname{Amount}$	Recovery	Limits
n-Tricosane			98.4	mg/Kg	1	100	98	70 - 130

# Sample: 335471 - Pad North Wall

GRO		U	1	<4.00	mg/Kg	1	4.00
Parameter		Flag	Cert	$\operatorname{Result}$	Units	Dilution	$\operatorname{RL}$
				$\operatorname{RL}$			
Prep Batch:	87471		Sample Prep	paration: 2013-0'	7-19	Prepared By:	MT
QC Batch:	103234		Date Analyz	ed: 2013-02	7-19	Analyzed By:	MT
Analysis:	TPH GRO		Analytical N	fethod: S 8015	D	Prep Method:	S $5035$
Laboratory:	Lubbock						

Report Date: July 31, 2013 Apache Bunin #006	Work Order: 13071723 Apache Bunin #006							Page Number: 11 of 24 NM		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits		
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)			$\begin{array}{c} 1.91 \\ 1.98 \end{array}$	mg/Kg mg/Kg	1	$\begin{array}{r} 2.00\\ 2.00\end{array}$	96 99	69.6 - 124 77.7 - 120		

# Sample: 335472 - Pad East Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock Chloride (Titration) 103583 87763		Analytic Date An Sample I	al Method: alyzed: Preparation:	SM 4500-Cl B 2013-07-29 2013-07-29	Prep Method: Analyzed By: Prepared By:	N/A GS GS
				$\operatorname{RL}$			
Parameter		Flag	$\operatorname{Cert}$	$\operatorname{Result}$	Units	Dilution	$\operatorname{RL}$
Chloride				100	mg/Kg	1	5.00

# Sample: 335472 - Pad East Wall

Laboratory:	Lubbock							
Analysis:	TPH DRO - NE	W	- Ana	lytical Meth	od: S 8015	S 8015 D Pre		thod: N/A
QC Batch:	103202		Date	e Analyzed:	2013-0	)7-19	Analyze	l By: CM
Prep Batch:	87442		Sam	ple Preparat	ion: 2013-0	07-18	Preparec	l By: CM
					RL			
Parameter		Flag	$\operatorname{Cert}$	Res	ult	Units	Dilution	$\operatorname{RL}$
DRO		Qs	1	<5	0.0	mg/Kg	1	50.0
						Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	Cert	$\operatorname{Result}$	Units	Dilution	$\operatorname{Amount}$	Recovery	Limits
n-Tricosane			101	mg/Kg	1	100	101	70 - 130

# Sample: 335472 - Pad East Wall

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QC Batch: Prep Batch:	103234 87471		Date Analyz Sample Prep	ed: 2013-0 aration: 2013-0 BL	7-19 7-19	Analyzed By: Prepared By:	5 5055 MT MT
Parameter		Flag	Cert	Result	Units	Dilution	$\mathbf{RL}$
GRO		υ	1	<4.00	mg/Kg	1	4.00

Report Date: July 31, 2013 Apache Bunin #006	Work Order: 13071723 Apache Bunin #006						Page Number: 12 of 2 Ni			
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits		
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	69.6 - 124		
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	77.7 - 120		

# Sample: 335473 - Pad West Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock Chloride (Titration) 103583 87763		Analytic Date An Sample I	al Method: alyzed: Preparation:	SM 4500-Cl B 2013-07-29 2013-07-29	Prep Method: Analyzed By: Prepared By:	N/A GS GS
				RL			
Parameter		Flag	Cert	Result	Units	Dilution	$\mathbf{RL}$
Chloride				109	mg/Kg	1	5.00

# Sample: 335473 - Pad West Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH DRO - NEW 103202 87442		Ana Dat Sam	lytical Meth e Analyzed: ple Preparat	od: S 8015 2013-0 tion: 2013-0	5 D 07-19 07-18	Prep Me Analyzec Preparec	ethod: N/A d By: CM d By: CM
Parameter		Flag	$\operatorname{Cert}$	Res	RL sult	Units	Dilution	RL
DRO		Qs	1	<5	0.0	mg/Kg	1	50.0
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			99.8	mg/Kg	1	100	100	70 - 130

# Sample: 335473 - Pad West Wall

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH GRO 103234 87471		Analytical M Date Analyze Sample Prepa	ethod: S 8015 ed: 2013-07 aration: 2013-07	D 7-19 7-19	Prep Method: Analyzed By: Prepared By:	S 5035 MT MT
				$\mathbf{RL}$			
Parameter		$\operatorname{Flag}$	$\operatorname{Cert}$	Result	Units	Dilution	$\operatorname{RL}$
GRO	1	U	1	<20.0	mg/Kg	5	4.00

Report Date: July 31, 2013 Apache Bunin #006		V	Vork Orde Apache B		Page Number: 13 of 2 NI			
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	5	2.00	106	69.6 - 124
4-Bromofluorobenzene (4-BFB)			2.22	mg/Kg	5	2.00	111	77.7 - 120

Report Date: July 31, 2013 Apache Bunin #006

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Parameter

Chloride

# Work Order: 13071723 Apache Bunin #006

Units

mg/Kg

Result

<3.05

RL

5

# Method Blanks

QU Date	h: 103202							
		Date A QC Pr	malyzed: eparation:	2013-07-19 2013-07-18	) ;		Analyzec Preparec	l By: CM l By: CM
	Floor		Cort		MDL Result		Unite	рI
	Fiag		, Cert		<5.22		mg/Kg	50
Flag (	Cert	Result	Units	Diluti	on A	Spike Amount	Percent Recovery	Recovery Limits
0		122	mg/Kg	1		100	122	70 - 130
QC Batcl	h: 103234							
		Date A QC Pr	malyzed: eparation:	2013-07-19 2013-07-19	) }		Analyzec Preparec	l By: MT By: MT
	Flag		Cert		MDL Besult		Units	RL
	0		1		< 0.230		mg/Kg	4
	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
		. <u></u>	1.97	mg/Kg	1	2.00	98	69.6 - 124
(4-BFB)			1.90	mg/Kg	1	2.00	95	77.7 - 120
QC Batcl	n: 103497	Date A QC Pr	Analyzed:	2013-07-29 2013-07-29	)		Analyze Prepare	d By: GS d By: GS
	Flag (QC Batch	Flag Cert QC Batch: 103234 Flag Flag (4-BFB) QC Batch: 103497	QC Date A         QC Pr         Flag         Cert         Result         122         QC Batch: 103234         QC Batch: 103234         Date A         QC Pr         Flag         Flag         Cert         Katch: 103234         QC Batch: 103234         QC Pr         Flag         Cert         (4-BFB)         QC Batch: 103497         Date A         QC Pr	QC Batch:     100001       Flag     Cert       Image: Flag     Cert       Image: Flag     Cert       Image: Flag     Units       QC Batch:     103234       Date Analyzed:     QC Preparation:       Image: Flag     Cert       Image: Flag     Image: Flag       Image: Flag     Image: Flag       Image: Flag     Image: Flag       Image: Flag     Ima	QC Batch: 10000       Date Analyzed: 2013-07-19 QC Preparation: 2013-07-18         Flag       Cert         1       1         Flag       Cert         122       mg/Kg         122       mg/Kg         QC Batch: 103234       2013-07-19         QC Batch: 103234       Date Analyzed: 2013-07-19         QC Preparation:       2013-07-19         Flag       Cert         Flag       Cert         Flag       Cert         9       1         1       1         QC Batch: 103234       2013-07-19         9       1.97       mg/Kg         1.90       mg/Kg         1.90       mg/Kg         QC Batch: 103497       2013-07-22         Date Analyzed: 2013-07-23       2013-07-24         QC Preparation: 2013-07-24       2013-07-24	QC Batch: 103101         Date Analyzed:       2013-07-19         QC Preparation:       2013-07-18         MDL       1         Image: State of the state of	Date Analyzed: 2013-07-19 QC Preparation: 2013-07-18FlagCertResult1 $< 5.22$ FlagCertResult122mg/Kg1100QC Batch: 103234Date Analyzed: 2013-07-19 QC Preparation: 2013-07-19Get FlagCertResultMDL IFlagCertCertResultImage: SpikeImage: SpikeMDL ResultImage: SpikeMDL <td>QC Preparation:       2013-07-19 QC Preparation:       Analyzec Prepared         Flag       Cert       Result       Units         1       &lt;5.22</td> mg/Kg         Flag       Cert       Result       Units         Flag       Cert       Result       Units         Flag       Cert       Result       Units         Flag       Cert       Result       Units         QC Batch:       103234       Date Analyzed:       2013-07-19 QC Preparation:       Analyzed         QC Batch:       103234       Image: Cert       Result       Units         Flag       Cert       Result       Units       Prepared         MDL       Flag       Cert       Result       Units         Flag       Cert       Result       Units       Prepared         MDL       Image: Spike       Percent       Prepared         MDL       Image: Spike       Percent       Recovery         Image: Spike       Percent       Spike       Percent         Flag       Cert       Result       Units       Image: Spike       Percent         GC Batch:       1.90       mg/Kg       1       2.00       95 <t< td=""></t<>	QC Preparation:       2013-07-19 QC Preparation:       Analyzec Prepared         Flag       Cert       Result       Units         1       <5.22

 $\operatorname{Cert}$ 

Flag

Report Date: July 31, Apache Bunin #006	2013	Work Order Apache Bu	:: 13071723 min #006	Page Number: 15	5 of 24 NM
Method Blank (1)	QC Batch: 103583				
QC Batch: 103583		Date Analyzed:	2013-07-29	Analyzed By:	GS
Prep Batch: 87763		QC Preparation:	2013-07-29	Prepared By:	GS
			MDL		
Parameter	$\operatorname{Flag}$	$\operatorname{Cert}$	$\operatorname{Result}$	Units	RL
Chloride			<3.05	mg/Kg	5

Report Date: July 31, 2013 Apache Bunin #006

# Laboratory Control Spikes

# Laboratory Control Spike (LCS-1)

QC Batch: 103202 Prep Batch: 87442			Date QC P	Analyze reparati	d: 20 .on: 20	13-07-19 13-07-18				Analyz Prepar	ed By ed By	: CM : CM
			]	LCS			Spike	Ν	Aatrix			Rec.
Param	F	r C	R	esult	Units	Dil.	Amoun	t I	Result	Rec	з.	Limit
DRO		1		227	mg/Kį	g 1	250		< 5.22	91	,	70 - 130
Percent recovery is based on the	spike r	esult. I	RPD i	s based	on the s	pike and s	pike dupli	cate re	sult.			
		$\mathbf{L}$	CSD			Spike	Matrix		R	ec.		RPD
Param	$\mathbf{F}$	C Re	esult	Units	Dil.	Amount	Result	Rec.	Lii	mit	RPD	Limit
DRO		1 2	236	mg/Kg	g 1	250	< 5.22	94	70 -	130	4	20
Percent recovery is based on the	spike r	esult. I	RPD i	s based	on the s	pike and s	pike dupli	cate re	sult.			
	LCS	5	LCSE	)			Spike	L	CS	LCSD		Rec.
Surrogate	Resu	lt	Result	t U	Jnits	Dil.	Amount	R	ec.	Rec.		Limit
n-Tricosane	93.7	7	94.6	m	g/Kg	1	100	ç	14	95	1	70 - 130
QC Batch: 103234 Prep Batch: 87471	,		Date . QC P L	Analyze reparati CS	d: 20 on: 20	13-07-19 13-07-19	Spike	M	atrix	Analyz Prepar	ed By ed By:	: MT : MT Bec
Param	F	С	Re	sult	Units	Dil.	Amount	Re	esult	Rec.		Limit
GRO		1	1	7.0	mg/Kg	1	20.0	<(	0.230	85	66	.9 - 120
Percent recovery is based on the s	spike r	esult. I	RPD is	s based	on the s	pike and s	pike dupli	cate re	sult.			
Param			50				NAAtrix		Re	C.		DDD
GRO	- F (	' Ro	ault	Unite	Бil	Amount	Rosult	Roc	Lin	ait	PPD	RPD Limit
	F (	$\frac{C}{1}$ Res	sult 7.3	Units mg/Kg	Dil.	Amount 20.0	Result <0.230	Rec. 86	Lin 66.9 -	nit • 120	RPD 2	RPD Limit 20
Percent recovery is based on the	F (	<u>C Res</u> 1 17 esult. H	sult 7.3 RPD is	Units mg/Kg s based	Dil. 1 on the s	Amount 20.0 pike and s	Result <0.230	Rec. 86 cate re	Lin 66.9 - sult.	nit • 120	RPD 2	RPD Limit 20
Percent recovery is based on the s	F (	$\frac{C}{1}$ Result. I	sult 7.3 RPD is	Units mg/Kg s based	Dil. 1 on the s	Amount 20.0 pike and s	Result <0.230 pike duplic	Rec. 86 cate re	Lin 66.9 - sult.	nit • 120	RPD 2	RPD Limit 20
Percent recovery is based on the s Surrogate	F G	C Res 1 17 esult. I	sult 7.3 RPD is LCS Resul	Units mg/Kg s based LCS t Res	Dil. 1 on the s SD ult U	Amount 20.0 pike and s	Result <0.230 pike duplic Spil	Rec. 86 cate re ke unt	Lin 66.9 - sult. LCS Rec.	nit • 120 LCSD Rec.	RPD 2	RPD Limit 20 Rec. Limit
Percent recovery is based on the s Surrogate Trifluorotoluene (TFT)	F (	C Rei 1 17 esult. I	sult 7.3 RPD is LCS Resul 2.04	Units mg/Kg s based LCS t Res 1.9	Dil. 1 on the s SD ult U 93 m	Amount 20.0 pike and s Juits D	Result <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u> <u>Constant</u>	Rec. 86 cate re ke unt 0	Lin 66.9 - sult. LCS Rec. 102	nit - 120 LCSD <u>Rec.</u> 96	RPD 2 69	RPD Limit 20 Rec. Limit .6 - 124

Report Date: July 31, 2013 Apache Bunin #006				Work O Apache	rder: 130 e Bunin <del>;</del>	971723 #006	Page Number: 17 of N				
Laboratory Control Spike	(LCS-1	)									
QC Batch: 103497 Prep Batch: 87702			Dat QC	e Analyze Preparati	ed: 201 ion: 201	3-07-29 3-07-29			Analyzed Prepared	By: GS By: GS	
Param		F	С	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
Chloride				98.0	mg/Kg	1	100	<3.05	98	85 - 115	
Percent recovery is based on	the spike	resu	lt. RPD	is based	on the sp	oike and sp	ike duplica	ate result.			
Donom	F	C	LCSD	Unito	Dil	Spike	Matrix	R Roa Li	.ec.	RPD D. Linvit	
Chlorida	Г	0		mg/Kg	r 1	100	< 3.05	99 85 ·	-115 1	<u>20</u>	
Laboratory Control Spike QC Batch: 103583 Prep Batch: 87763	(LCS-1	)	Dat QC	te Analyze Preparati	ed: 201 ion: 201	.3-07-29 3-07-29	. ·		Analyzed Prepared	By: GS By: GS	
		D	0	LCS	TT 14.	1.0	Spike	Matrix	D	Rec.	
Chlorida		<b>F</b>	<u> </u>	Result	Units		Amount		  	25 115	
Percent recovery is based on	the spike	resu	lt. RPD	98.0 is based	on the sp	ike and sp	ike duplica	ate result.	90	09 - 119	
n	Б	a	LCSD	TT 14	D'1	Spike	Matrix	R	.ec.	RPD	
Param Chlorido	F	C	Result	mg/Ke	$\frac{DII}{1}$	Amount	Kesuit	$\frac{\text{Kec. Li}}{00}$ 85	$\frac{\text{mit}}{115}$ KP	D Limit 20	
Percent recovery is based on Matrix Spike (MS-1) S QC Batch: 103202 Prep Batch: 87442	the spike	resu nple:	lt. RPD 335473 Dat QC	e Analyze Preparati	on the sp d: 201 on: 201	3-07-19 3-07-18	ike duplica	ate result.	Analyzed Prepared	By: CM By: CM	
Param DRO	Qs	F	<u>C</u>	MS Result 178	Units mg/Kg	Dil.	Spike Amount 250	Matrix Result 5.6		Rec. Limit 70 - 130	

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

MSD Result U 185 m t. RPD is b MSD Result 94.4 335644 Date An QC Prep MSC C Result 1 11.9 t. RPD is b MSD Result U 10.8 mg	Units Dil <u>ag/Kg 1</u> pased on the <u>Units</u> <u>mg/Kg</u> alyzed: 2 paration: 2 <u>lt Units</u> <u>mg/K</u> pased on the <u>Units Dil</u> .	Spike Amount 250 spike and Dil. 1 2013-07-19	Matrix 5.6 spike duplicat Spike Amount 100 Spike Amount 20.0 spike duplicat Matrix	Rec. Li 72 70 76 result. MS Rec. 90 90 4 4 4 5 72 70 70 70 70 70 70 70 70 70 70 70 70 70	Analyze Prepared Rec. 60	A RPD Limit 4 20 Rec. Limit 70 - 130 d By: MT d By: MT Rec. Limit 38.8 - 120 RPD
t. RPD is b MSD Result 94.4 335644 Date An QC Prep MS C Result 1 11.9 t. RPD is b MSD Result U 10.8 mg	Image: based on the       Units       Units       mg/Kg       alyzed:       2       paration:       2       lt     Units       0     mg/K       pased on the       Units     Dil.	$\frac{230}{\text{spike and }}$ $\frac{\text{Dil.}}{1}$ $\frac{2013-07-19}{2013-07-19}$ $\frac{\text{s}}{2} \frac{\text{Dil.}}{2}$ $\frac{\text{g}}{5}$ $\frac{5}{2} \frac{5}{2}$ $\frac{5}{2} \frac{5}{2} \frac{5}{2}$ $\frac{5}{2} \frac{5}{2} \frac{5}$	spike duplicat Spike Amount 100 Spike Amount 20.0 spike duplicat Matrix	Matrix Result Ke result.	MSD Rec. 94 Analyze Prepared Rec. 60	Rec.         Limit           70 - 130         70 - 130           d By:         MT           By:         MT           Rec.         Limit           38.8 - 120         RPD
t. RPD is b MSD Result 94.4 335644 Date An QC Prep MSD 1 11.9 t. RPD is b MSD Result U 10.8 mg	Units <u>Units</u> mg/Kg malyzed: 2 paration: 2 lt Units <u>mg/K</u> pased on the Units Dil.	pike and Dil. Dil. 1 2013-07-19 2013-07-19 s Dil. g 5 spike and Spike Amount	Spike Amount 100 Spike Amount 20.0 spike duplicat Matrix	MS Rec. 90 Matrix Result <1.15 Matrix Result	MSD Rec. 94 Analyze Prepare Rec. 60	Rec. Limit 70 - 130 d By: MT d By: MT Rec. Limit 38.8 - 120 RPD
MSD Result 94.4 3335644 Date An QC Prep MS C Resul 1 11.9 t. RPD is b MSD Result U 10.8 mg	Units mg/Kg nalyzed: 2 paration: 2 lt Units mg/K pased on the Units Dil.	Dil. 1 2013-07-19 2013-07-19 5 Dil. 5 Dil. 5 spike and 5 Spike Amount	Spike Amount 100 Spike Amount 20.0 spike duplicat Matrix	MS Rec. 90 	MSD Rec. 94 Analyze Prepare Rec. 60	Rec. Limit 70 - 130 d By: MT d By: MT Rec. Limit 38.8 - 120 RPD
Result 94.4 335644 Date An QC Prep MS C Result 1 11.9 t. RPD is b MSD Result U 10.8 mg	Units mg/Kg halyzed: 2 paration: 2 lt Units mg/K pased on the Units Dil.	$\begin{array}{c} \text{Dil.} \\ 1 \\ \hline \\ 2013-07-19 \\ \hline \\ 2013-07-19 \\ \hline \\ 3 \\ \hline \\ 3 \\ \hline \\ 5 \\ \hline \\ \hline$	Amount 100 Spike Amount 20.0 spike duplicat Matrix	Rec. 90 Matrix Result <1.15 te result. R	Rec. 94 Analyze Prepared Rec. 60	Limit 70 - 130 d By: MT d By: MT Rec. Limit 38.8 - 120 RPD
94.4 335644 Date An QC Prep MS <u>C Resul</u> <u>1</u> 11.9 t. RPD is b MSD Result U <u>10.8 mg</u>	mg/Kg nalyzed: 2 paration: 2 lt Units mg/K pased on the Units Dil.	$\frac{1}{2013-07-19}$ $\frac{1}{2013-07-19}$ $\frac{1}{2013-07-19}$ $\frac{1}{2013-07-19}$ $\frac{1}{2013-07-19}$ $\frac{1}{2013-07-19}$ $\frac{1}{2013-07-19}$ $\frac{1}{2013-07-19}$	Spike Amount 20.0 spike duplicat Matrix	90 Matrix Result <1.15 The result.	94 Analyze Prepare Rec. 60	70 - 130 d By: MT d By: MT Rec. Limit 38.8 - 120 RPD
335644 Date An QC Prep MS <u>C Resul</u> 1 11.9 t. RPD is b MSD <u>Result U</u> 10.8 mg	alyzed: 2 paration: 2 lt Units <u>mg/K</u> pased on the Units Dil.	$\begin{array}{c} 2013-07-19\\ 2013-07-19\\ \hline \\ s \\ \hline \\ \hline \\ s \\ s \\ \hline \\ s \\ s \\ \hline \\ s \\ s$	Spike Amount 20.0 spike duplicat Matrix	Matrix Result <1.15 te result. R	Analyze Prepare Rec. 60	d By: MT d By: MT Rec. Limit 38.8 - 120 RPD
QC Prep MS <u>C Resul</u> <u>1 11.9</u> t. RPD is b MSD <u>Result U</u> <u>10.8 mg</u>	paration: 2 lt Units mg/K pased on the Units Dil.	2013-07-19 <u>s</u> Dil. <u>g</u> 5 spike and Spike Amount	Spike Amount 20.0 spike duplicat Matrix	Matrix Result <1.15 te result. R	Prepared Rec. 60	d By: MT Rec. Limit 38.8 - 120 RPD
MS C Resul 1 11.9 t. RPD is b MSD Result U 10.8 mg	It Units ) mg/K based on the Units Dil.	s Dil. g 5 spike and Spike Amount	Spike Amount 20.0 spike duplicat Matrix	Matrix Result <1.15 te result. R	Rec. 60	Rec. Limit 38.8 - 120 RPD
t. RPD is b MSD Result U 10.8 mg	based on the	spike and Spike	spike duplicat Matrix	e result.		RPD
MSD Result U 10.8 mg	Inits Dil.	Spike Amount	Matrix	Rí	00	RPD
10.8 mg	a/Ka E	mound	Result R	ec. Lii	mit F	RPD Limit
	g/ng J	20.0	<1.15 5	54 38.8	- 120	10 20
t. RPD is b	pased on the	spike and	spike duplicat	e result.		
${ m MS}$ Result	MSD Result	Units	Spike Dil. Amour	e MS nt Rec.	MSD Rec.	Rec. Limit
2.08	1.84	mg/Kg	5 2	104	92	69.6 - 124
2.14	2.29	mg/Kg	5 2	107	114	77.7 - 120
335471 Date Ar	nalvzed:	2013-07-29			Analyz	ed By: GS
QC Prej	paration: 2	2013-07-29			Prepare	ed By: GS
MS	5		Spike	Matrix		Rec.
C Resu	ult Unit	ts Dil.	Amount	Result	Rec.	Limit
555				57	100	80 - 120
	335471 Date Ar QC Pre MS C Rest	335471 Date Analyzed: 5 QC Preparation: 5 MS C Result Unit	335471 Date Analyzed: 2013-07-29 QC Preparation: 2013-07-29 MS <u>C Result Units Dil.</u>	335471 Date Analyzed: 2013-07-29 QC Preparation: 2013-07-29 MS Spike C Result Units Dil. Amount	335471 Date Analyzed: 2013-07-29 QC Preparation: 2013-07-29 MS Spike Matrix C Result Units Dil. Amount Result	335471 Date Analyzed: 2013-07-29 Analyze QC Preparation: 2013-07-29 Prepare MS Spike Matrix <u>C Result Units Dil. Amount Result Rec.</u> 555 mg/Kg 1 500 57 100

Report Date: July 31, 2013Work Order: 13071723Apache Bunin #006Apache Bunin #006						)71723 #006			Page N	unber: 1	19 of 24 NM
matrix spikes continued			MSD			Spike	Matrix		Rec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
Param	F	C	MSD Bosult	Unite	Dil	Spike A mount	Matrix Besult	Roc	Rec.	RPD	RPD Limit
Chloride			559	mg/Kg	1	500	57	100	80 - 120	1	20
Matrix Spike (MS-1) Spik QC Batch: 103583 Prep Batch: 87763	æd Sa	mple	: 335974 Date QC J	Analyzed Preparatio	l: 201 on: 201	13-07-29 13-07-29			Anal Prep	yzed By ared By	7: GS 7: GS
Param		F	C F	MS Aesult	Units	Dil.	Spike Amount	Ma Ro	atrix esult R	ec.	Rec. Limit
Chloride				621	mg/Kg	1	500	]	123 1	8 00	30 - 120
Percent recovery is based on the	e spike	resu	lt. RPD	is based c	on the sp	pike and sp	ike duplic	ate res	ult.		
			MSD			Spike	Matrix		Rec.		RPD
Param	F	С	$\operatorname{Result}$	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			$6\overline{11}$	mg/Kg	1	500	123	98	80 - 120	2	20

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

Report Date: July 31, 2013 Apache Bunin #006

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# **Calibration Standards**

# Standard (CCV-1)

QC Batch:	103202		Date	Analyzed:	2013-07-19		Analy	zed By: CM
				CCVs	CCVs	CCVs	Percent	
•				True	Found	Percent	Recovery	Date
Param	Flag	$\operatorname{Cert}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	268	107	80 - 120	2013-07-19

# Standard (CCV-2)

QC Batch:	103202		Date	Analyzed:	2013-07-19		Analy	zed By: CM
				CCVs True	CCVs Found	CCVs Percent	Percent	Date
Param	Flag	Cert	Units	Conc	Conc	Recovery	Limits	Analyzed
$\frac{1 \text{ aram}}{\text{DRO}}$	1 105	1	mg/Kg	250	230	92	80 - 120	2013-07-19
		1	116/116	200	200	. 52	00 120	2010-07-10

# Standard (CCV-1)

QC Batch:	103234		Date	Analyzed:	2013-07-19		Analy	zed By: MT
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.06	106	80 - 120	2013-07-19

# Standard (CCV-2)

QC Batch:	103234		Date	Analyzed:	2013-07-19		Analy	zed By: MT
				CCVs True	CCVs Found	CCVs Percent	Percent	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.876	88	80 - 120	2013-07-19

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Report Date: Ju Apache Bunin #	uly 31, 2013 #006			Work Orde Apache B	r: 13071723 unin #006		Page Nu	mber: 21 of 24 NM
Standard (CC	V-3)							
QC Batch: 103	234		Date .	Analyzed:	2013-07-19		Analyz	zed By: MT
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.977	98	80 - 120	2013-07-19
Standard (ICV	/-1)					1		
QC Batch: 103	497		Date	Analyzed:	2013-07-29		Analy	zed By: GS
Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-29
Standard (CC	V-1)							
QC Batch: 103	497		Date	Analyzed:	2013-07-29		Analy	zed By: GS
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-29

# Standard (ICV-1)

QC Batch:	103583			Date A	Analyzed:	2013-07-29		Analy	zed By: GS
					ICVs	ICVs	ICVs	Percent	
					True	Found	Percent	Recovery	Date
Param		Flag	$\operatorname{Cert}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride				mg/Kg	100	100	100	85 - 115	2013-07-29

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# Standard (CCV-1)

QC Batch: 103583

Date Analyzed: 2013-07-29

Analyzed By: GS

Report Date: Apache Bunin	July 31, 2013 #006			Work Order: Apache Bui	Page Number: 22 of 24 NM						
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed			
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-29			

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# Appendix

# **Report Definitions**

NameDefinitionMDLMethod Detection LimitMQLMinimum Quantitation LimitSDLSample Detection Limit

# Laboratory Certifications

	Certifying	Certification	Laboratory
$\mathbf{C}$	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-13-9	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.
- Qsr Surrogate recovery outside of laboratory limits.
- U The analyte is not detected above the SDL

# **Result Comments**

Report Date: July 31, 2013 Apache Bunin #006 Work Order: 13071723 Apache Bunin #006 Page Number: 24 of 24 NM

1 Dilution due to turbidity.

# Attachments

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

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# $\underset{\text{Photo Documentation}}{\text{Appendix } \mathbb{D}}$

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967

# Apache Bunin #006 AD Unit Letter A, Section 13, T21S, R37E



Initial release area, facing west





22013:07/09 7/9/13

Excavating in the pasture, facing east

2013/07/09 Excavating on the pad, facing south 7/9/13 2013/07/09

Importing soil, facing southwest

7/9/13









Watering down pad, facing south

08/05/2013 Backfilling pad, facing northwest 8/5/13





Backfilling completed, facing south

Backfilling completed, facing east

8/5/13

# ÷.

# Appendix E Final C-141

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967

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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

Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

SEP 0 9 2013 Oil Conservation Division 1220 South St. Francis Dr.

RECEIVED Santa Fe, NM 87505

	_		Rele	ase Notifi	catior	n and Co	orrective A	ction	1									
,,					<u> </u>	OPERAT	FOR		🔲 Initia	al Report	$\boxtimes$	Final Report						
Name of Co	mpany A	Apache Corp	oration			Contact Larry Bruce Baker Telephone No. (432) 631-6982												
Facility Nat	ne Bunin	#006	111 0023	1		Facility Type Well Location												
Surface Ow	ner Bun	in. N B Prop	erties	Mineral (	Jwner	r API No. 30-025-39547												
		<u> </u>		LOC		ON OF RELEASE												
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/V	West Line	County								
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NATURE OF RELEASE																		
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in us minicul			Yes	No 🔲 Not R	equired	Geoff Leki	ng – NMOCD											
By Whom?	RECS					Date and H	oertson – BLM Iour 7/2/13 NMC	DCD 3:4	5 pm									
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If a Watercou	ırse was Im	pacted, Descr	ibe Fully.*	ç.				· · · ·			····							
								DT	N = 6	۶۹'								
Describe Cat The stuffing affected pad Describe Are The release a jurisdiction. sent to a com pad. Grab sa taken to a co On August 2 imported top pad was wate I hereby certi regulations a public health should their o or the enviro federal, state	a Affected a ffected a to on July 3 <sup>rd</sup> mercial lab mmercial lab soil and the soil and the <u>er packed to</u> ify that the i ll operators or the envi operations h nment. In a <u>or local lab</u>	and Cleanup A tal of 3,501 sc , 2013, RECS oratory for an taken from th boratory for a MOCD gave A e lease pad wa provide a sol information gi are required t ronment. The lave failed to a ddition, NMC ws and/or regu	Action Tak liche to pro- Action Tak l [t, of whi personnel alysis. Ba ue walls an nalysis. A pache per s backfille id driving ven above o report ar acceptanc adequately DCD accep ilations.	luced water. A v otect wildlife unt en.* ch 918 sq ft was were on site to t sed on the sampl d bottom of the e ll samples return mission to backf d with clean, im <u>s</u> surface. is true and comp d/or file certain te of a C-141 rep investigate and t	acuum tr iil the on in the pa ake initia ing data, excavatio ed labor ill the sit ported ca plete to the release n ort by the remediat	uck was calle e-call clears. Insture. On Jul al samples. So the site was of a cons and field t atory chloride re with clean, liche. The part he best of my otifications and e NMOCD m e contaminations of the the oes not reliev	d on site and retr The site will be of app 9 <sup>th</sup> , 2013, BLM amples were take excavated to 6 inde ested for chloride e results below 25 imported soil. O asture area was co knowledge and u and perform correc arked as "Final R on that pose a thr e the operator of	ieved 10 delineato 1 inform to ches bgs es and h 50 mg/kg n Augus ontourec understa ctive act teport" c reat to g respons	bbls of oi ed to determ ed RECS the the surface is in the past ydrocarbom g and GRO st $5^{th}$ , the pa l to the surr nd that purs- ions for rel loes not rel round wate ibility for c	and product nine further hat the site v throughout ure and to 2 s. Represer and DRO v asture was b ounding loc suant to NM eases which ieve the ope r, surface we ompliance v	vas not the releat ft bgs of ackfille ator, a OCD n may er rator of ater, hur vith any	er. The under BLM ase area and on the lease amples were f non-detect. d with clean, nd the lease ules and idanger liability man health y other						
Signature: Larry Bruce Baker Printed Name: Larry Bruce Baker Approved by Environmental Specialist: Approved by Environmental Specialist:											<u>2™</u> ₩V	<b>D</b>						
Title: Envir	onmental Te	echnician				Approval Dat	e: 9/11/13		Expiration	Date:								
E-mail Addre	ess: larry h	aker@anache	com.com			Conditions of	f Approval <sup>.</sup>		4									
Date:	8-30-	-13	Phone:	(432) 631-69	82		P.P.2 M.2			Attached	□ 1-13	-2946						

\* Attach Additional Sheets If Necessary