3R-1011

Release Report/ General Correspondence

Enterprise SJ

Date: Apr-Jun 2015

OIL CONS. DIV DIST. 3

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

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

APR 17 2015

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. Santa Fe, NM 87505

Oil Conservation Division

		F	Releas	e Notifica	tion	and Co	orrective .	Action	on			
					OP	ERATOR		\boxtimes	Initial F	Report		
Name of C	ompany: {	Enterprise F	ield Serv	rices LLC	(Contact: Thomas Long						
		ve, Farmin			_		No. 505-599-2					
Facility Nar	me: Richa	rdson #3 F	Release	Site	F	acility Typ	e: Natural Ga	s Gatl	nering Li	ne		
Surface Ov	vner: Nav a	ijo		Mineral O	vner: Navajo API No.							
				LOCA	TION	OF REL	EASE					
Unit Letter	Section	Township	Range	Feet from		South	Feet from	East	Vest	County		
N	2	27N	13W	the 1313	Line		the 2483	Line		San Juan		
	<u> </u>	1 04:4	30.00	I				440				
		Latitude_	36.60			_	e <u>-108.189</u>	110				
				NATU	JRE (OF RELE						
Type of Rele				1			Release Unkno			Recovered: Unknown		
Source or K	elease. Sus	pected Inter	nai Conos	ion			Hour of Occurre @ 2:50 p.m.	nce:		Hour of Discovery: 5 @ 3:50 p.m.		
Was Immediate Notice Given?						If YES, To			· · · · · · · · · · · · · · · · · · ·			
		☐ Yes	s 🗌 No	Not Requ	iired							
By Whom?		- 10				Date and						
Was a Wate	rcourse Re		☐ Yes	⊠ No		If YES, Vo	lume Impacting	the Wa	atercourse			
☐ 163 ⊠ 140												
		npacted, Des		<u> </u>								
Describe Cause of Problem and Remedial Action: On March 22, 2015, Enterprise technicians confirmed a leak on Richardson #3 pipeline. The pipeline was isolated, de-pressurized and lock out tag out was applied. Repairs and remediation are currently is the scheduling process. A third party environmental contractor will oversee excavation activities and collected closure samples.							tly is the scheduling					
surface. A	third party	environment	al contrac		excav	ation activiti	es and collected			observed at the ground s. A "Final" C-141 will be		
rules and re which may e relieve the o ground water	gulations all endanger pu operator of li er, surface v	l operators a ublic health o lability should vater, humar	re require or the envir d their ope on health or	d to report and/ conment. The a crations have fa the environmen	or file acceptable to the file of the file	certain relea ance of a C- adequately addition, NM	se notifications 141 report by th investigate and OCD acceptan ws and/or regul	and pe e NMO remed ce of a ations.	rform corr CD marke iate contai C-141 rep	ective actions for releases ed as "Final Report" does not mination that pose a threat to ort does not relieve the		
Signature:	Jon) Fred					OIL CON	SERV	ATION/	DIVISION		
Printed Nam	1e: Jon E. F	ields			/	Approved by	Environmental	Specia	ilist:	my full		
Title: Directo	or, Environn	nental			/	Approval Da	te: 4/30/15	- 1	Expiration	Date:		
E-mail Addr	ess:jefields	@eprod.com				Conditions o	f Approval:			Attached		
Date: 14-1-70/9 Phone: (713)381-6684 Attach Additional Sheets If Necessary # 1005 15120 30215												
			·· J		z	++ NI	コンコイベ() ・	ついょ	1,00	•		

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 1220 S. St. Francis Dr., Santa Fe, NM 87505

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Oil Conservation Division 1220 South St. Francis Dr.

				Sa	nta Fe	e, NM 87	505					
		F	Releas	e Notific	atior	and C	orrective	Acti	on			
					OP	ERATO	R] Initial	Report	\boxtimes	Final Repor
Name of C	company:	Enterprise I	Field Ser	vices LLC		Contact: T	homas Long					<u> </u>
Address: 6	14 Reilly A	Ave, Farmir	gton, NN	187401			No. 505-599-					
Facility Na	me: Ceda	r Hill Comp	ressor S	Station		Facility Ty	pe: Natural G	as Cor	npressi	on		
Surface Ov	wner: BLN	1		Mineral (Owner:	BLM			API N	O.		
				LOCA	ATION	OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from						County		
N	29	32N	10W	the	Line	ne the Line San Juan 257 2125				an		
	<u></u>	1					<u> </u>	<u> </u>	2123	_L		
			La	titude <u>36.94</u>	<u>19607 </u>	_Longitud	ie_ <u>107.90759</u>	0				
·				NAT	URE	OF REL			T			
Type of Rel	ease: Natur	ai Gas				MCF	of Release: 23,6	000	Volume	Recovere	a: Non	16
Source of R	Release: Fai	led Suction \	√alve				Hour of Occurr	ence:		d Hour of		very:
Was Immed	liate Motice	Given?					5 @ 2:30 p.m. o Whom? Cory	Smith -		15 @ 9:30 · Shari Ke		- RIM
VVas iminec	nate Notice	⊠ Ye	s 🗌 No	Not Re	quired	11 120, 1	o whom: cory	Offilia -	TAINIOOD	, onan ite	CHam	- DLIVI
By Whom?	Thomas Lo	ong				Date and	Hour: 3/23/201	5 @ 2:3	36 p.m.			
Was a Wate	ercourse Re	eached?		57			olume Impactin			е		
			∐ Yes	⊠ No								
		mpacted, De										
							rise observed ga on valve failed o					
lecinician	vas dispato	neu to invest	igate. Til	e technician di	iscovere	d the such	on valve lalled (JII OIIIL #	+2 allowiii	g gas to e	IIIII IO a	atmosphere.
Describe Ar	ea Affected	and Cleanu	p Action T	aken.* No flui	ds were	released a	ind no surface ii	mpacts	were obs	erved. No	further	r action is
necessary.												
							st of my knowle					
							ease notification					
							-141 report by t y investigate an					
							MOCD accepta					
operator of	responsibili	ty for compli	ance with	any other fede	eral, stat	te, or local	aws and/or regi					
į		/"/.	<i>1</i>				OIL CON	ISER'	VATIO	<u> 1 DIVIS</u>	<u>10'n</u>	
Signature:	JW ?	· trul	/							1		1
						Approved b	y Environmenta	al Speci	alist: /	my	1/ -	
Printed Nan	ne: Jon E. F	-ielas					1 1				44	
Title: Direct	or, Environi	mental				Approval D	ate: 5/8/13	5	Expiratio	n bate:		·
					1		(/ /					

Date: 3-27-15 * Attach Additional Sheets If Necessary

E-mail Address:jefields@eprod.com

HNCS 1512856900

Conditions of Approval:

Phone: (713)381-6684



Attached [

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 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141 Revised August 8, 2011

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

				Sa	nta Fe	e, NM 87	505					
		F	Releas	e Notific	atioı	n and C	orrective	Acti	on			
					OF	PERATO	₹	⊳	Initial F	Report \square	Final Repo	
Name of C	ompany:	Enterprise f	Field Ser	vices LLC			homas Long			10,700	,	
		ve, Farmin					No. 505-599-2	2286				
Facility Na	me: Madd	ox WN Fed	leral #10			Facility Ty	oe: Natural G a	ıs Gat	hering Pi	peline		
Surface Ov	wner: BLM	<u> </u>		Mineral C	Owner:	er: BLM API No.						
				LOCA	ADITA	N OF REI	FASE					
Unit Letter	Section	Township	Range	Feet from		South	Feet from	Eas	West	County		
M	13	30N	13W	the	Line		the	Line		San Juan		
				87			528		And	AANA DII	MICT O	
	L	<u> </u>		-414100-0	0000		100 10101		- UI	CONS. DIV	<u> </u>	
			La	atitude_36.8	0630	_Longitud	e_108.16404_	_		MAY 11 2	การ	
										MHITT	.013	
					URE	OF REL						
		al Gas and Napected inter			· ·		f Release: Unkr Hour of Occurre			Recovered: No		
Source of K	elease. Sus	specied inter	nai conos	ЮП			6:30 p.m.	ence.		l Hour of Disco 5 @ 6:30 p.m .		
Was Immed	liate Notice		···			If YES, To						
		☐ Ye	s 🗌 No	Not Red	quired							
By Whom? Thomas Long						Date and						
Was a Wate	ercourse Re		□ v ₂ ,	⊠ Na		If YES, V	olume Impacting	the W	/atercourse	•		
			☐ Yes	⊠ No								
If a Waterco	ourse was Ir	npacted, De	scribe Full	y.*							 	
							e was notified o					
							med the release ace impacts will					
locked out a	ina taggea t	out. Nepairs	are earrer	iny being sene	aulcu e	and Subsum	ace impacts will	DC CVa	idaled ddii	ng repair activi	ues.	
Describe Ar	oa Affected	and Cleanu	n Action T	aken * There	woro no	a fluide are s	staining observe	d at the	around e	ufaco Subcui	face impacts	
		repair activi		anell. There	were n	Jilulus ale s	stairing observe	u at the	s ground st	illace, Subsul	nace impacts	
				ve is true and	comple	te to the be	st of my knowled	dge and	d understar	nd that oursuar	at to NMOCD	
							ase notifications					
							-141 report by the					
							investigate and MOCD acceptan					
							aws and/or regu					
		1 /12	B				OIL CON	SER'	VATION	DIVISION	1	
Signature:	m	1. E. A.								, //		
Oignature.			-			Approved b	y Environmenta	l Speci:	alist:	me I	91	
Printed Nan	ne: Jon E. F	ields					1 .	Т	<u> </u>	JG I		
Title: Direct	or, Environr	nental				Approval Da	ate: 5/12/14		Expiration	Date:		
							7- 3					
E-mail Addr	ess:jefields	@eprod.com	1			Conditions	of Approval:			Attached [
	<i></i>				Attached [_]							
Date: 5	-S- (S		Phor	ne: (713)381-6	684							

* Attach Additional Sheets If Necessary

HNCS 1512650361



District !
1625 N. French Dr., Hobbs, NM 88240
District II
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Form C-141

Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr.

				Sar	nta Fe	e, NIVI 87	505					
		F	Releas	e Notifica	atior	and C	orrective	Acti	on	·	<u> </u>	
					OP	ERATO	₹	\triangleright	Initial	Report	☐ Final Re	epor
Name of C	ompany: [Enterprise I	Field Serv	vices LLC			homas Long					
Address: 6							No. 505-599-2	2286				
Facility Nar	ne: Latera	I 2A-4				Facility Typ	oe: Natural Ga	s Gat	hering P	ipeline		
Surface Ov	vner BI M			Mineral C)wner	BLM			API N	n		
0411400 01							EVSE		1,0,11	<u> </u>		
Unit Letter	Section	Township	Range	Feet from		ON OF RELEASE orth South Feet from			West	County	·	
F	24	27N	10W	the	Line	o o u u .	the	Line		San Juan		
				1602			1484					
Latitude 36.563504 Longitude 107.850989 OIL CONS. DIV DIST.								: 3				
				NAT	URE (OF RELI	EASE			MAY	08 2015	
Type of Rele	ease: Natura	al Gas and N	Vatural Ga				f Release: Unkn	own	Volume	Recovered:	None	
Source of Ro						l .	Hour of Occurre	nce:		d Hour of Dis		
Was Immed	iate Notice	Given2				4/23/2015	5 @ 1:05 p.m.		4/23/20	15 @ 2:00 p.	m	
vvas ininicu	iate Notice	Ye:	s 🗌 No	⊠ Not Req	uired	11 123, 10	y vviioiii :					
By Whom? Thomas Long							Hour					
Was a Wate		ached?				If YES, Vo	olume Impacting	the W	atercours	е		
			Yes	⊠ No								
If a Waterco	urse was In	npacted Des	scribe Full	v.*		<u> </u>						
					3, 2015	5, during rou	utine operations	a field	operation	technician id	dentified a	
natural gas r	release on l	_ateral 2A-4	pipeline. T	The pipeline wa	as isola	ted, depres	surized, locked (out and	l tagged o	out. Repairs a	are currently	
being sched	uled and su	ibsurface im	pacts will I	be evaluated d	uring re	epair activiti	es.					
D	Aff41		- A - C T	-l+ AII		f 11 (. 1 . 1						
are unknown					area o	i soli stainin	ig was observed	on the	grouna s	ипасе. Subs	ипасе ітрасі	is .
			• .		omnlet	e to the hos	st of my knowled	go and	Lundoreta	and that pure	uant to NIMOC	רוי
rules and reg	gulations all	operators a	re require	d to report and	omplet for file	certain relea	ase notifications	and pe	erform cor	rective action	ns for release:	رر, S
which may e	endanger pu	ıblic health c	or the envir	onment. The	accepta	ance of a C	-141 report by th	e NMC	CD mark	ed as "Final	Report" does	not
							investigate and					it to
							MOCD acceptant aws and/or regul		C-141 re	port does not	relieve the	
operator or r	/		/	arry other road	ui, otat	0, 01 10001 10	OIL CON		ATION	DIVISIO	Na	
0: -1		کے کے							· · · · · · · · · · · · · · · · · · ·	1	` //	A
Signature:	JAN .	1	M				·		/	//m /		
Printed Nam	e: Jon E. F	ields			/	Approved by	y Environmental	Specia	alist:	- 7/	7-	<u>ノ</u>
Title: Directo	r Environg	nental				Approval Da	sto: 5/12/	اسمر	Expiration	Data		
TILLE, DITECTO	A, ENVIRONI	ioniai				Aprioval Da	10. V/10//	>		· Date		
E-mail Addre	ess:jefields(@eprod.com	1		(Conditions of	of Approval:				—	
	101									Attached	Ц	
Date: 5	14/20	15	Phon	e: (713)381-66	84							

* Attach Additional Sheets If Necessary

#NXS 1513237838

District I
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State of New Mexico Energy Minerals and Natural Resources

Revised August 8, 2011

Form C-141

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

				_San	ta Fe	, NM 87	505						
		F	Releas	e Notifica	tion	and C	orrective	Actio	on				
					OP	ERATOR	₹	\boxtimes	Initial I	Report	☐ Final Repor		
		Enterprise f				Contact: Thomas Long							
		ve, Farmin	gton, NM	87401		Telephone No. 505-599-2286 Facility Type: Natural Gas Gathering Pipeline							
Facility Na	me: Latera	al 3B-33			<u> </u> F	acility Typ	e: Natural Ga	s Gath	ering Pi	ipeline			
Surface Ov	wner: BLM			Mineral O	wner:	BLM			API No).			
				LOCA	TION	OF REL	EASE						
Unit Letter	Section	Township 29N	Range	Feet from		South	Feet from	East	Vest	County San Juan			
N	2	2914	12W	the 903									
Latitude 36.750320 Lo					Longitud		6		- cons. D	IV DIST. 3			
						_		<u> </u>		MAY 08	2015		
Type of Rel	ease: Natur	al Gas and N	Jatural Ga		JKE (OF RELI	EASE f Release Unkno	own	Volume I	Recovered:	· · · · · · · · · · · · · · · · · · ·		
		pected inter				Date and	Hour of Occurre		Date and	Hour of Di	scovery:		
Was Immed	iata Natios	Civon	······································				9:25 a.m.	\		@ 12:30 p.r	<u>n.</u>		
vvas immed	iate Notice	Given?	s 🗌 No	☐ Not Requ	iired	IT YES, IC	Whom? Cory S	omitn —	NMOCD				
By Whom?	Thomas Lo	ng			· · · ·.	Date and	Time 4/25/15 at	11:04 a	a.m.				
Was a Wate	rcourse Re		[]			If YES, Volume Impacting the Watercourse							
			⊠ Yes	☐ No							e,		
If a Waterco	urse was In	npacted, Des	scribe Full	y.* The release	is loca	ited in a sm	all ephemeral w	ash. N	o surface	impacts ob	served.		
33. At 9:41a	m Enterpris	e employees	s were dis	patched to leak	site. T	he cause o	f the release is ι	unknow	n at this ti	me. The rel	ak on Lateral 3B- ease was verified aluated during the		
							ound surface. So of the third part						
rules and re- which may e relieve the o ground water	gulations all endanger pu perator of li er, surface w	l operators a iblic health o ability should vater, human	re required r the envired their ope thealth or	d to report and/ conment. The a rations have fa the environmer	or file of ccepta iled to nt. In a	certain releance of a Cadequately addition, NN	ase notifications 141 report by th	and pe le NMO remedi ce of a	rform corr CD marke ate contai	ective action ed as "Final mination tha	Report" does not at pose a threat to		
Cianotura	< 7	\(\frac{1}{2}					OIL CON	SERV	ATION	DIVISIO	M		
Signature:	o: lon E E	iolds	wq_							med &			
Printed Nam	IE. JUII E. F	10109			<i>F</i>	Approved by	Environmental	Specia	list:	× × × ×			
Title: Directo	or, Environn	nental			/	Approval Da	ite: 5/12/1	<u>5</u> E	xpiration	Date:			
E-mail Addr	ess:jefields(@eprod.com			(Conditions of	of Approval:			Attached			
Date: 5	14/20			(740)004 004	74					/ Madrida			
Date:	1 1/10/10)	Phon_	e: (713)381-668	54								

* Attach Additional Sheets If Necessary

#NCS 1513237509

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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

State of New Mexico OIL CONG. D. C. 218 11. 5 **Energy Minerals and Natural** Resources

APR 27 2015

Form C-141 Revised August 8, 2011

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

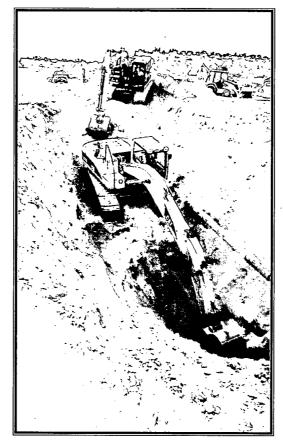
Oil Conservation Division Santa Fe, NM 87505

Release Notification and Corrective Action

1220 South St. Francis Dr.

						OPE	RATOR		□ Init	ial Report	\boxtimes	Final Repo	
Name of Com	pany: Enter	prise Field Se	rvices LLC			Contact: Thor							
		armington, N					. 505-599-2286						
Facility Name							Natural Gas Gat	hering I	Line				
					•								
Surface Owne	er: BLM			Mineral Own	er:BLN	BLM API No.							
				LO	CATIO	N OF RELEA	SE				-		
Unit Letter	Section	Township	Range	Feet from the	North	South Line	Feet from the	East/V	Vest ine	County			
С	1	27N	9W	417)		2370			San Juan			
	<u> </u>	-		Latitude <u>36.610</u> 1	148	Longit	tude <u>107.740565</u>			I			
					ATURE	OF RELEAS							
Type of Release: Natural Gas and Natural Gas Liquids						1	Release: 204.18 M 0 BBLS fluids	/ICF	Volume R	ecovered: N	one		
Source of Release: Cracked weld on the pipeline						1	lour of Occurrence 12:10 p.m.	e:	Date and 12:10 p.m	Hour of Disc	overy:	3/3/2015 @	
Was Immedia	ite Notice Giv	ven?				If YES, To	Whom? NMOCD	- Cory			cham;	San Juan	
		⊠ Yes [□ No □	Not Required		County Sh	erriff's Departme	ent; LEF	PC .				
By Whom? T	homas Long	g				Date and H	lour: 3/3/2015 @ 2	2:15 p.n	n.				
Was a Water							ume Impacting the			nated 1-2 Bi	3Ls		
⊠ Yes □ No						·							
If a Watercou	rse was Impa	acted, Describ	e Fully.*Flu	ids released from	the pig	peline entered	a small unclassit	ied eph	emeral was	h.			
							eported pipeline				nterpris	e technicians	
							d out to mitigate a						
was a result of	of cracked we	eld on the pipe	line. Upon	completion of rer	nediatio	on activities, t	his section of the	Lateral	C-7 was rer	noved from s	service.		
													
							moved by mecha						
							Additional area						
							imately 315 barre ded with this "Fina			vas transpon	ed to a	I New Mexico	
Oil Collise val	ion approved	a land lann lac	Jilley. A timu	party corrective	action	eport is inclu	ueu with this Time	0-141	١.				
	•												
							owledge and und						
							perform corrective						
							"Final Report" do						
							a threat to ground erator of responsit						
local laws and			plance or a	C-141 Teport due	55 1101 11	elleve the ope	stator of responsit	mily ioi	Compliance	With any of	iei ieue	rial, state, or	
1000110110			2.				OIL C	ONSER	VATION DI	VISION/		/	
) Ku	-///						1	\mathcal{A}	d		
Signature:	Jan	1 fre	406						lun	/ 1/.	(-	_ /	
	1.0				1	Approved by	Environmental Sp	ecialist:		7 Y.A.			
Printed Name	f. Jon E. Fiel	ds					, , , , , , , , , , , , , , , , , , , 	— т		70	\leq		
Title: Director	, Environmei	ntal				Approval Date	5/2/15		Expiration	Date:			
C manil Andrian	aniafialda@a	annad aana			ĺ,	Conditions of	Approval:		`	'			
E-mail Address:jefields@eprod.com					`	Conditions of	Approvai.			Attached			
1.01.00									Allached				
Date:	4-24	205	Phone	: (713)381-6684									
Attach Additi	onal Sheets	s If Necessar		- 15/55 / 0004		\ , .			.				
	a. 51100k		,		7	z Nrs	15097	7 M	$q \cap z$				
								$\mathcal{O}^{\mathcal{O}}$	しなり				

Enterprise Products Lateral C-7 Pipeline Release Latitude North 36.61010°, Longitude West -107.74052° Unit Letter A Section 1 T27N R9W San Juan County, New Mexico April 9, 2015



OIL CONS. DIV DIST. 3 APR 27 2015

Submitted To:

Enterprise Products Field Environmental-San Juan Basin 614 Reilly Avenue Farmington, NM 87401

Submitted By:

Souder, Miller & Associates 401 West Broadway Farmington, NM 87401 (505)325-7535



Table of Contents

1.0	Executive Summary	1
2.0	Introduction	1
3.0	Site Ranking and Land Jurisdiction	2
4.0	Summary of Field Activities	2
5.0	Conclusions and Recommendations	2
6.0	Closure and Limitations	3

Figures:

Figure 1: Vicinity Map

Figure 2: Site Map

Figure 3: Soil Contaminant Concentration Map A Figure 4: Soil Contaminant Concentration Map B Figure 5: Soil Contaminant Concentration Map C

Tables:

Table 1: Release Information

Table 2: Site Ranking

Table 3: Summary of Laboratory Analysis

Appendices:

Appendix A: Site Photography

Appendix B: Soil Disposal Documentation Appendix C: Laboratory Analytical Reports

1.0 Executive Summary

On March 16, 17 and 18, 2015, Souder, Miller & Associates (SMA) oversaw the excavation of a hydrocarbon release associated with the Lateral C-7 pipeline initially reported to SMA on March 3, 2015. The table below summarizes information about the recent remediation activities.

	TABLE 1	: RELEASE INFOR	MATION				
Name	Lateral C-7 Pi	peline Release					
	Latitude/Long	tude	Section,	, Range			
Location	36.61010°	-107.74052°	Unit A	Section 1	T 27N, R 9W		
Date Reported to SMA	March 3, 2015	March 3, 2015					
Reported to	Tom Long						
Land Owner	Bureau of Lan	d Management (BL	M)				
Reported To	BLM, NM Oil (Conservation Division	n (NMOC	D)			
Diameter of Pipeline	10 inches						
Source of Release	Faulty Welds						
Release Contents	Natural Gas L	Natural Gas Liquids/Condensate					
Release Volume	Unknown						
Nearest Waterway	Unnamed Trib	outary Wash to Blan	co Wash				
Depth to Groundwater		e less than 50 feet					
Nearest Domestic Water Source	Greater than	1,000 feet					
NMOCD Ranking	40						
SMA Response Dates	3/16,17,18/20	15					
Subcontractors	Halo Services	Inc.					
Disposal Facility	Envirotech La	ndfarm					
Yd ³ Contaminated Soil Excavated and Disposed	1870 Yd ³ Soil	/ 315 bbls liquids					

2.0 Introduction

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this report that describes remediation of a hydrocarbon release associated with the Lateral C-7 pipeline. The C-7 pipeline release was a result of faulty weld of the 10-inch, steel pipeline. The release was initially reported to SMA on March 3, 2015. The release site is located in Unit Letter A, Section 1, Township 27 North, Range 9 West; 36.61010°, -107.74052°, San Juan County, New Mexico. Figure 1, Vicinity Map, illustrates the location of the release.

3.0 Site Ranking and Land Jurisdiction

The release site is located in an unnamed tributary wash to Blanco Wash on land managed by the Bureau of Land Management. The site is at an elevation of approximately 5,916 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be less than 50 feet below ground surface (bgs). Figure 2 depicts the site location.

SMA searched the New Mexico State Engineer's Office online water well data base for water wells in the vicinity of the release. No wells were located within 1,000 feet of the site. However, 10 wells were located within a 1 mile radius of the site. The physical location of this release is within the jurisdiction of the Bureau of Land Management.

This release location has been assigned a NMOCD ranking of 40 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 2 illustrates site ranking rationale.

4.0 Summary of Field Activities

On March 16, 17, 18, 2015, SMA mobilized to the release site to oversee excavation activities during the repair of the pipeline. SMA oversaw and directed the excavation of hydrocarbon impacted soils by Halo Services Inc. SMA guided the excavation activities by collecting soil samples for field screening with a calibrated photo-ionization detector (PID). Liquids Discharged from the pipeline traveled across the surface to the north and east in the bar ditches and washes near the release. Figures 3, 4 and 5 illustrate the soil sample locations.

Soil samples were initially field screened with a calibrated PID and submitted for conformation laboratory analysis per United States Environmental Protection Agency Method 8021 BTEX, and 8015 Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) and EPA Method 300.0 for Chlorides to Hall Environmental Analytical Laboratory, Albuquerque, New Mexico. Figure 4 illustrates the extent of the excavation and composite soil sample locations and laboratory results. Laboratory results are included in Appendix C.

The final excavation dimensions were approximately 132 feet long by 40 feet wide and up to 35 feet deep, covering an area of approximately 5280 square feet. Surface impacts in the bar ditches, wash and the rill were manually excavated. In total, approximately 1,870 cubic yards of material were excavated and hauled to Envirotech Land Farm near Bloomfield, New Mexico for proper disposal and replaced with clean backfill material. Soil disposal documentation is included in Appendix B. Site photography is included in Appendix A.

5.0 Conclusions and Recommendations

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH.

Laboratory analytical results for all samples collected during the March, 2015 excavation indicate concentrations below NMOCD Guidelines. One sample taken from the area across the road where liquids pooled, prior to entering the small wash and the east bar ditch, was above NMOCD standards with combined TPH of 143 mg/kg. The location of this sample was further excavated on March 24, 2015 to 1 foot bgs. An additional sample was collected and submitted for laboratory analysis on March 24, 2014. The results for this subsequent sample, SC-1@1' bgs, were below NMOCD/BLM Guidelines for benzene, BTEX, TPH and chlorides.

Soil contaminant concentrations are illustrated in Figures 3, 4 and 5. A summary of laboratory analysis is included in Table 4. Laboratory reports are included in Appendix C.

SMA recommends no further activities at the Lateral C-7 site.

6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment, verification of release stabilization, regulatory liaison, oversight and control of remediation operations, disposal arrangements and documentation, project management, and preparation of this summary report. All work has been performed in accordance with generally accepted professional environmental consulting practices.

If there are any questions regarding this report, please contact either Steve Moskal or Reid Allan at 505-325-7535.

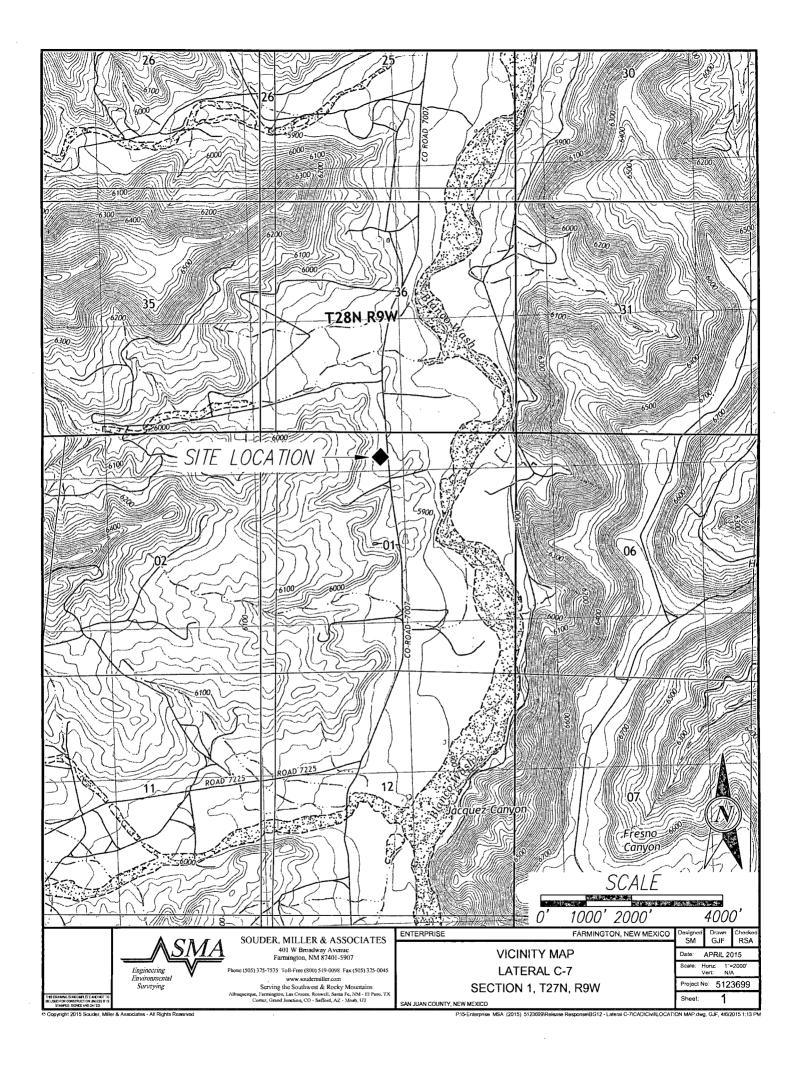
Submitted by:

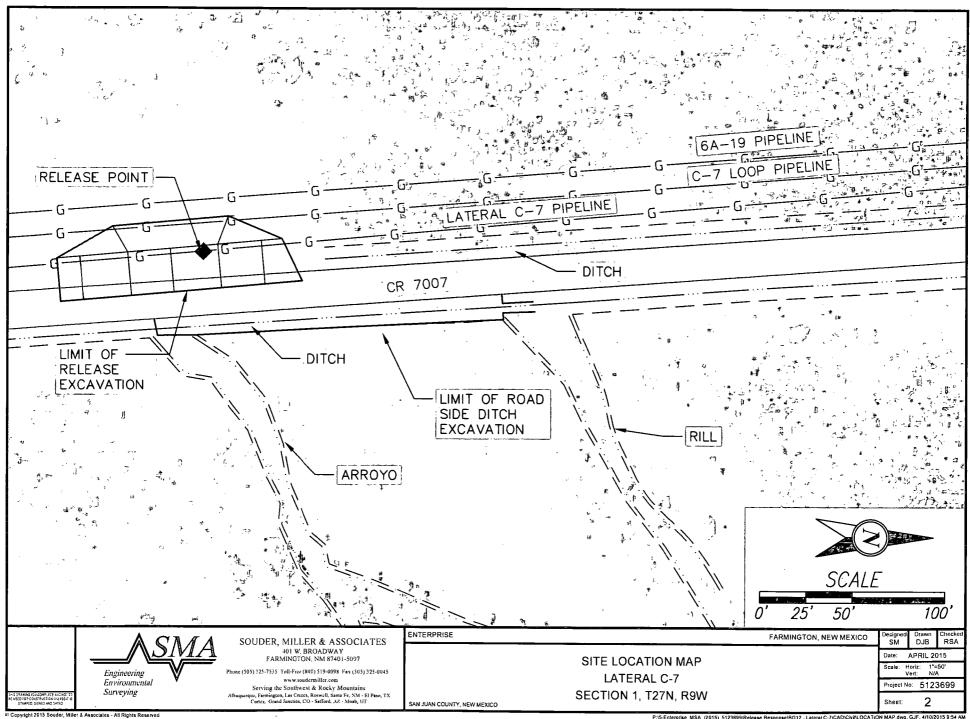
Reviewed by:

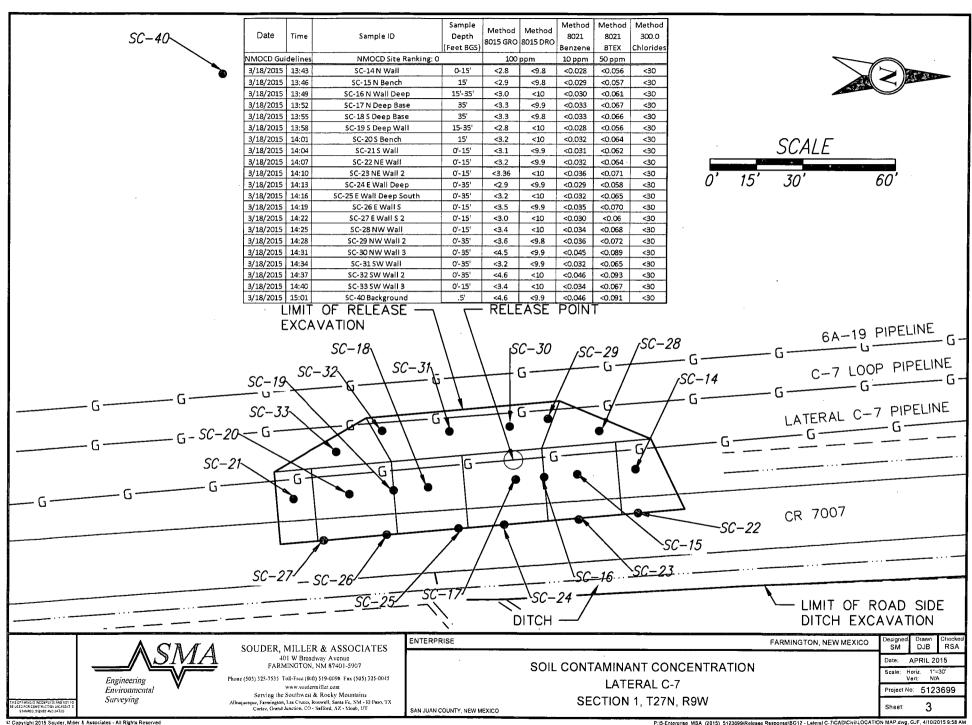
SOUDER, MILLER & ASSOCIATES -

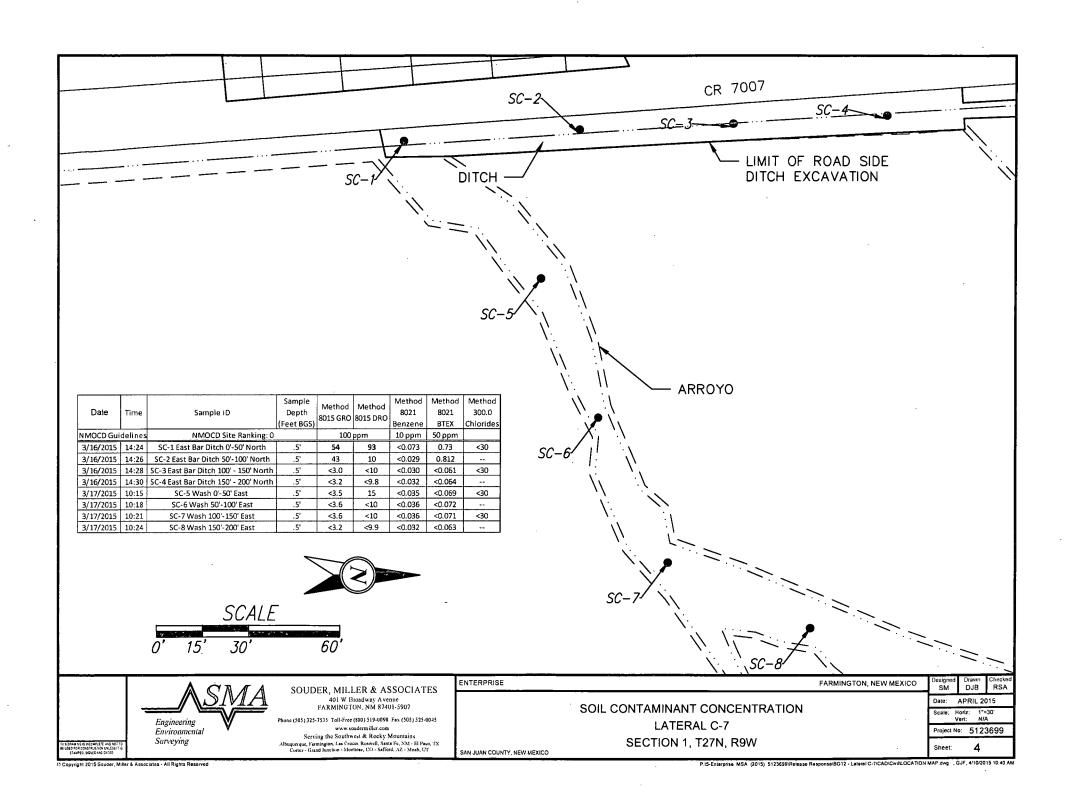
Jesse Sprague Staff Scientist Reid S. Allan, PG Principal Scientist

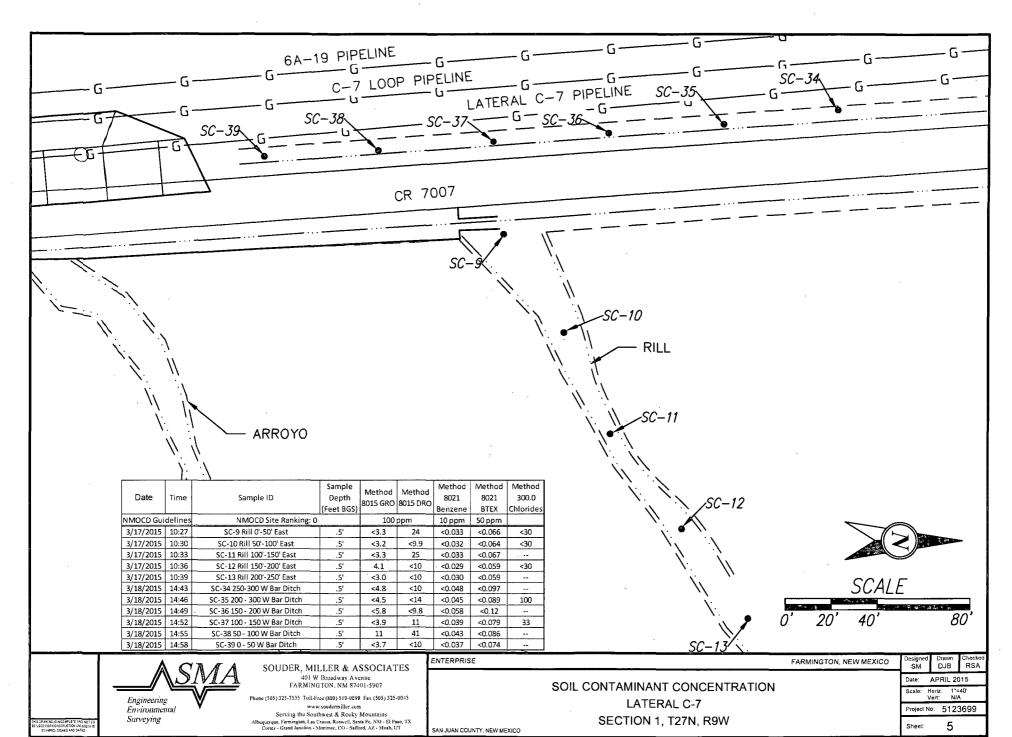












Tables

	NMOCD Numeric Rank				
Depth to Groundwater	for this Site	Source for Ranking	Notes		
< 50 BGS = 20	20	Field verification that	Groundwater is assumed		
		release is located within	to be less than 50 feet		
50' to 99' = 10		an unnamed wash.	below ground surface.		
			0		
>100' = 0					
Ranking Criteria for Horizontal Distance to Nearest Surface	NMOCD Numeric Rank	Cauree for Danking	Notes		
Water	for this Site	Source for Ranking	Notes		
water	•				
< 200' = 20	20				
		Field verification that	Release is located within		
200'-1000' = 10		release is located within an unnamed wash.	an unnamed tributary wash of Blanco Wash.		
	•	an unnameu wasn.	wash of blanco wash.		
>1000' = 0					
Ranking Criteria for Horizontal	NMOCD Numeric Rank				
Distance to a Water Well or	for this Site	Source for Ranking	Notes		
Water Source					
<1000' from a water source?					
<200' for a private domestic	0		No recorded water wells		
water source? YES OR NO to		NM State Engineer Water			
BOTH. YES = 20, NO = 0		Well Database	wells located within a 1		
			mile radius.		
		<u> </u>			
Total Site Ranking	40				
Soil Remedation Standards	0 to 9	10 to 19	>19		
Benzene	10 PPM	10 PPM	10 PPM		
BTEX	50 PPM	50 PPM	50 PPM		
ТРН	5000 PPM	1000 PPM	100 PPM		



Enterprise Products Table 3: Summary of Laboratory Analysis Results in mg/Kg

Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX	Method 300.0 Chlorides
NMOCD Gui	delines	NMOCD Site Ranking	g: 40	100	ppm	10 ppm	50 ppm	
3/16/2015	14:24	SC-1 East Bar Ditch 0'-50' North	.5'	54	93	<0.073	0.73	<30
3/24/2015	9:30	SC-1 East Bar Ditch 0'-50' North	1'	<4.9	<9.8	<0.049	<0.097	39
3/16/2015	14:26	SC-2 East Bar Ditch 50'-100' North	.5'	43	10	<0.029	0.812	
3/16/2015	14:28	SC-3 East Bar Ditch 100' - 150' North	.5'	<3.0	<10	<0.030	<0.061	<30
3/16/2015	14:30	SC-4 East Bar Ditch 150' - 200' North	.5'	<3.2	<9.8	<0.032	<0.064	
3/17/2015	10:15	SC-5 Wash 0'-50' East	.5'	<3.5	15	<0.035	<0.069	<30
3/17/2015	10:18	SC-6 Wash 50'-100' East	.5'	<3.6	<10	<0.036	<0.072	
3/17/2015	10:21	SC-7 Wash 100'-150' East	.5'	<3.6	<10	<0.036	<0.071	<30
3/17/2015	10:24	SC-8 Wash 150'-200' East	.5'	<3.2	<9.9	<0.032	<0.063	
3/17/2015	10:27	SC-9 Rill 0'-50' East	.5'	<3.3	24	<0.033	<0.066	<30
3/17/2015	10:30	SC-10 Rill 50'-100' East	.5'	<3.2	<9.9	<0.032	<0.064	· <30
3/17/2015	10:33	SC-11 Rill 100'-150' East	.5'	<3.3	25	<0.033	<0.067	
3/17/2015	10:36	SC-12 Rill 150'-200' East	.5'	4.1	<10	<0.029	<0.059	<30
3/17/2015	10:39	SC-13 Rill 200'-250' East	.5'	<3.0	<10	<0.030	<0.059	
3/18/2015	13:43	SC-14 N Wall	0-15'	<2.8	<9.8	<0.028	<0.056	<30
3/18/2015	13:46	SC-15 N Bench	15'	<2.9	<9.8	<0.029	<0.057	<30
3/18/2015	13:49	SC-16 N Wall Deep	15'-35'	<3.0	<10	<0.030	<0.061	<30
3/18/2015	13:52	SC-17 N Deep Base	35'	<3.3	<9.9	<0.033	<0.067	<30
3/18/2015	13:55	SC-18 S Deep Base	35'	<3.3	<9.8	<0.033	<0.066	<30
3/18/2015	13:58	SC-19 S Deep Wall	15-35'	<2.8	<10	<0.028	<0.056	<30
3/18/2015	14:01	SC-20 S Bench	15'	<3.2	<10	<0.032	<0.064	<30
3/18/2015	14:04	SC-21 S Wall	0'-15'	<3.1	<9.9	<0.031	<0.062	<30
3/18/2015	14:07	SC-22 NE Wall	0'-15'	<3.2	<9.9	<0.032	<0.064	<30
3/18/2015	14:10	SC-23 NE Wall 2	0'-15'	<3.36	<10	<0.036	<0.071	<30
3/18/2015	14:13	SC-24 E Wall Deep	0'-35'	<2.9	<9.9	<0.029	<0.058	<30
3/18/2015	14:16	SC-25 E Wall Deep South	0'-35'	<3.2	<10	<0.032	<0.065	<30
3/18/2015	14:19	SC-26 E Wall S	0'-15'	<3.5	<9.9	<0.035	<0.070	<30
3/18/2015	14:22	SC-27 E Wall S 2	0'-15'	<3.0	<10	<0.030	<0.06	<30
3/18/2015	14:25	SC-28 NW Wall	0'-15'	<3.4	<10	<0.034	<0.068	<30
3/18/2015	14:28	SC-29 NW Wall 2	0'-35'	<3.6	<9.8	<0.036	<0.072	<30
3/18/2015	14:31	SC-30 NW Wall 3	0'-35'	<4.5	<9.9	<0.045	<0.089	<30
3/18/2015	14:34	SC-31 SW Wall	0'-35'	<3.2	<9.9	<0.032	<0.065	<30
3/18/2015	14:37	SC-32 SW Wall 2	0'-35'	<4.6	<10	<0.046	<0.093	<30
3/18/2015	14:40	SC-33 SW Wall 3	0'-15'	<3.4	<10	<0.034	<0.067	<30



Enterprise Products Table 3: Summary of Laboratory Analysis Results in mg/Kg

Date	Time	Sample ID	Sample Depth (Feet BGS)	8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX	Method 300.0 Chlorides
NMOCD Guidelines NMOCD Site Rankii		g: 40	100	ppm	10 ppm	50 ppm		
3/18/2015	14:43	SC-34 250-300 W Bar Ditch	.5'	<4.8	<10	<0.048	<0.097	
3/18/2015	14:46	SC-35 200 - 300 W Bar Ditch	.5'	<4.5	<14	<0.045	<0.089	100
3/18/2015	14:49	SC-36 150 - 200 W Bar Ditch	.5'	<5.8	<9.8	<0.058	<0.12	
3/18/2015	14:52	SC-37 100 - 150 W Bar Ditch	.5'	<3.9	11	<0.039	<0.079	33
3/18/2015	14:55	SC-38 50 - 100 W Bar Ditch	.5'	11	41	<0.043	<0.086	
3/18/2015	14:58	SC-39 0 - 50 W Bar Ditch	.5'	<3.7	<10	<0.037	<0.074	
3/18/2015	15:01	SC-40 Background	.5'	<4.6	<9.9	<0.046	<0.091	<30



Appendix A
Site Photography



Photo 1: The liquids released from the Lateral C-7 eroded a large hole above the release location. Pictured is the release after residual liquids where removed.

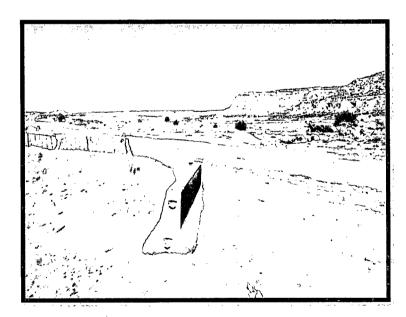


Photo 2: Surface impact from pipeline liquids as they traveled across ground surface in the vicinity if the release.

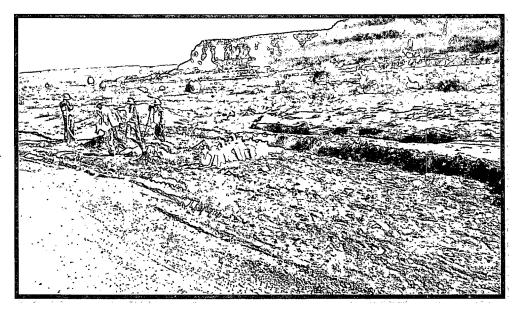


Photo 3: Manual excavation of surface impacts in the east bar ditch and wash by Halo Services Inc. contractors.

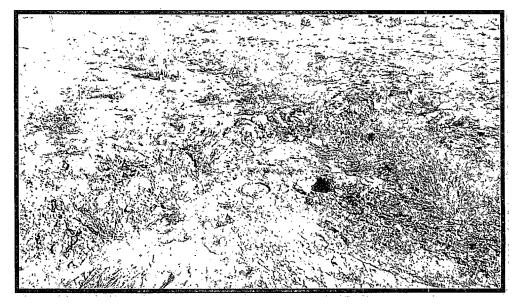


Photo 4: Visible surface impact, the location pictured is where the east bar ditch impact enters the rill and runs east. One point in a sample composite is visible.

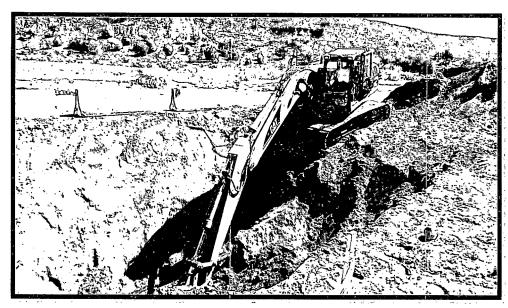


Photo 5: Initial excavation exposes impacted soils near the release. The depth of the pipeline necessitated a large excavation.

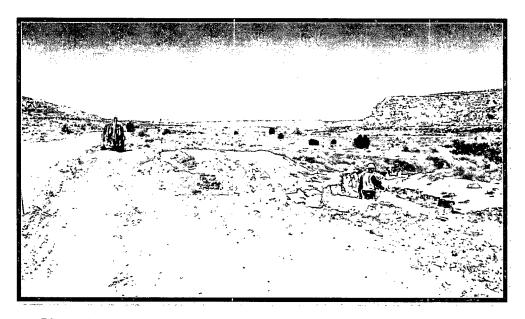


Photo 6: A rubber tire backhoe was used to remove the impact within the bar ditch. Also visible is the removal of surface impacts within the wash. View is to north.



Photo 7: Contamination extended into the road base but was able to be removed by creating a shoofly to divert traffic to the east. Concrete barriers and barrels where used for safety.

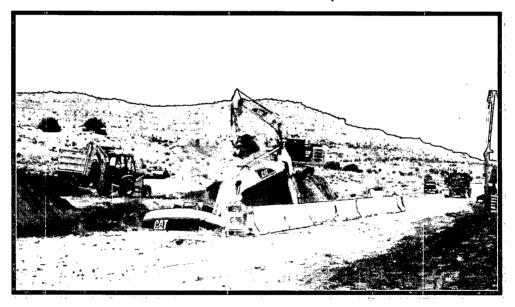


Photo 8: A second track mounted hoe was used to keep up with soil excavation and removal.

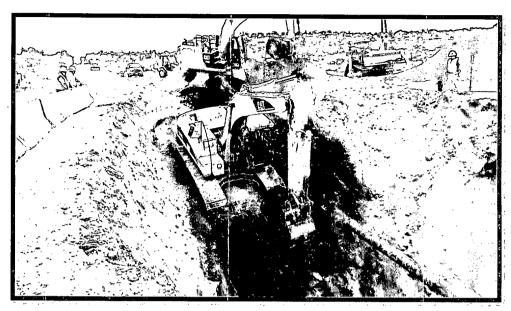


Photo 9: Heavily stained soils where encountered in the east end of the excavation however contamination was not detected in laboratory samples.

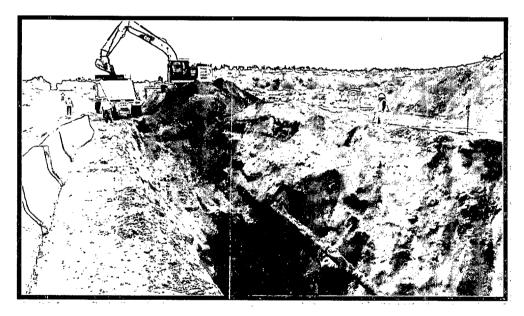


Photo 10: Final excavation extents measured over 130 feet long with depths to 35 feet below grade.

Appendix B Soil Disposal Documentation

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

State of New Mexico Energy Minerals and Natural Resources 97057-0693 Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-138 Revised 08/01/11

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REOUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401
2. Originating Site: Lateral C-7 Pipeline Release March 2015
3. Location of Material (Street Address, City, State or ULSTR): Unit C Sec 1 T 27 N R 9 W, San Juan County, NM;36.610106, -107.740523
4. Source and Description of Waste:
Source: Natural Gas Gathering Line Description: Hydrocarbon impacted soil/sludge/water released from a gathering line
Estimated Volume _80_yd³ (bb) Known Volume (to be entered by the operator at the end of the haul) 1798/315 yd³ / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I, Thomas Long, representative or authorized agent for Enterprise Products Operating do hereby Generator Signature certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988
regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. **Operator Use Only: Waste Acceptance Frequency Monthly Weekly Per Load**
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☑ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
I, Thomas Long 3-3-15, representative for Enterprise Products Operating authorize to complete Generator Signature the required testing/sign the Generator Waste Testing Certification.
I, Kand Runge, representative for Envirotech, Inc. do hereby certify that
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: To Be Determined, Environally, Halo, BET, Confant, UBL, Flying M. Del Prado, 34
OCD Permitted Surface Waste Management Facility Lokato, Es Parza, 8+8 Excauation, Rockies
Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011 Address of Facility: Hilltop, NM Method of Treatment and/or Disposal: Evaporation Injection Treating Plant Landfarm Landfill Other
Waste Acceptance Status:
APPROVED DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: Kendra Runung TITLE: Waste Coordinator DATE: 3/3/15 SIGNATURE: Surface Waste Management Facility Authorized Agent 505-632-0615
<u></u>

District 1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources 9 7057-2693 Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-138 Revised 08/01/11

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE
1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401
2. Originating Site: Lateral C-7 Pipeline Release April 2015
3. Location of Material (Street Address, City, State or ULSTR): Unit C Sec 1 T 27 N R 9 W, San Juan County, NM;36.610106, -107.740523
4. Source and Description of Waste:
Source: Natural Gas Gathering Line Description: Hydrocarbon impacted soil/sludge/water released from a gathering line
Estimated Volume 80 yd3 (bbl) Known Volume (to be entered by the operator at the end of the haul) / 2 (yd3) bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I, Thomas Long , representative or authorized agent for Enterprise Products Operating do hereby Generator Signature certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988
regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. **Operator Use Only: Waste Acceptance Frequency Monthly Weekly Per Load**
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
Thomas Long
I, Thomas Long 3-3-15, representative for Enterprise Products Operating authorize to complete Generator Signature
Generator Signature
the required testing/sign the Generator Waste Testing Certification.
I, Kend Kunub, representative for Envirotech, Inc. do hereby certify that
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples
have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: To Be Determined Envirotech, Rich! Trucking
OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011 Address of Facility: Hilltop, NM Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other
Waste Acceptance Status: APPROVED DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: Kendra Runung TITLE: Waste Coordinator DATE: 4/1/15
SIGNATURE: TELEPHONE NO.: Surface Waste Management Facility of Phonized Agent 505-632-0615

Appendix C Laboratory Analytical Reports



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 18, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401

TEL: (505) 325-5667

FAX

RE: Lateral C-7

OrderNo.: 1503672

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/17/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1503672

Date Reported: 3/18/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1 Collection Date: 3/16/2015 2:24:00 PM

Project: Lateral C-7 Lab ID: 1503672-001

Matrix: MEOH (SOIL) Received Date: 3/17/2015 7:10:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS					Analyst	: BCN
Diesel Range Organics (DRO)	93	10		mg/Kg	1	3/17/2015 1:03:40 PM	18172
Surr: DNOP	117	63.5-128		%REC	1	3/17/2015 1:03:40 PM	18172
EPA METHOD 8015D: GASOLINE RANGE				Analyst	: NSB		
Gasoline Range Organics (GRO)	54	15		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Surr: BFB	167	80-120	s	%REC	5	3/17/2015 9:07:38 AM	18158
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.073		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Toluene	ND	0.15		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Ethylbenzene	ND	0.15		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Xylenes, Total	0.73	0.29		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Surr: 4-Bromofluorobenzene	116	80-120		%REC	5	3/17/2015 9:07:38 AM	18158
EPA METHOD 300.0: ANIONS						Analyst	:: LGT
Chloride	ND	30		mg/Kg	20	3/17/2015 9:24:05 AM	18176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 8

- P Sample pH Not In Range
- Reporting Detection Limit

Analytical Report

Lab Order 1503672

Date Reported: 3/18/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Project: Lateral C-7

Lab ID:

1503672-002

Client Sample ID: SC-2

Collection Date: 3/16/2015 2:26:00 PM

Matrix: MEOH (SOIL) Received Date: 3/17/2015 7:10:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst	BCN
Diesel Range Organics (DRO)	10	9.9		mg/Kg	1	3/17/2015 1:25:14 PM	18172
Surr: DNOP	112	63.5-128		%REC	1	3/17/2015 1:25:14 PM	18172
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB	
Gasoline Range Organics (GRO)	43	2.9		mg/Kg	1	3/17/2015 9:36:22 AM	18158
Surr: BFB	329	80-120	s	%REC	1	3/17/2015 9:36:22 AM	18158
EPA METHOD 8021B: VOLATILES				,		Analyst	: NSB
Benzene	ND	0.029		mg/Kg	1	3/17/2015 9:36:22 AM	18158
Toluene	0.072	0.029		mg/Kg	1	3/17/2015 9:36:22 AM	18158
Ethylbenzene	0.11	0.029		mg/Kg	1	3/17/2015 9:36:22 AM	18158
Xylenes, Total	0.63	0.058		mg/Kg	1	3/17/2015 9:36:22 AM	18158
Surr: 4-Bromofluorobenzene	132	80-120	s	%REC	1	3/17/2015 9:36:22 AM	18158

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- . H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Analytical Report

Lab Order 1503672

Date Reported: 3/18/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-3

Project: Lateral C-7

Collection Date: 3/16/2015 2:28:00 PM

Lab ID: 1503672-003

Matrix: MEOH (SOIL) Received Date: 3/17/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analys	t: BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/17/2015 1:46:58 PM	18172
Surr: DNOP	106	63.5-128	%REC	1	3/17/2015 1:46:58 PM	18172
EPA METHOD 8015D: GASOLINE R.	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	3/17/2015 10:05:07 AM	1 18158
Surr: BFB	98.9	80-120	%REC	1	3/17/2015 10:05:07 AM	1 18158
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.030	mg/Kg	1	3/17/2015 10:05:07 AM	1 18158
Toluene	ND	0.030	mg/Kg	1	3/17/2015 10:05:07 AM	1 18158
Ethylbenzene	. ND	0.030	mg/Kg	1	3/17/2015 10:05:07 AM	1 18158
Xylenes, Total	ND	0.061	mg/Kg	1	3/17/2015 10:05:07 AM	1 18158
Surr: 4-Bromofluorobenzene	112	80-120	%REC	1	3/17/2015 10:05:07 AM	1 18158
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/17/2015 9:36:29 AM	18176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503672

Date Reported: 3/18/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-4

Project: Lateral C-7

Collection Date: 3/16/2015 2:30:00 PM

Lab ID: 1503672-004

Matrix: MEOH (SOIL)

Received Date: 3/17/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	: BCN
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/17/2015 2:08:32 PM	18172
Surr: DNOP	110	63.5-128	%REC	1	3/17/2015 2:08:32 PM	18172
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/17/2015 10:33:48 AM	1 18158
Surr: BFB	104	80-120	%REC	1	3/17/2015 10:33:48 AM	1 18158
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.032	mg/Kg	1	3/17/2015 10:33:48 AM	1 18158
Toluene	ND	0.032	mg/Kg	1	3/17/2015 10:33:48 AM	18158
Ethylbenzene	ND	0.032	mg/Kg	1	3/17/2015 10:33:48 AM	1 18158
Xylenes, Total	ND	0.064	mg/Kg	1	3/17/2015 10:33:48 AM	18158
Surr: 4-Bromofluorobenzene	110	80-120	%REC	1	3/17/2015 10:33:48 AM	1 18158

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 4 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503672

18-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18176

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 18176

PQL

RunNo: 24873

Prep Date: 3/17/2015 Analysis Date: 3/17/2015

SeqNo: 732771

%REC LowLimit

Units: mg/Kg HighLimit

%RPD **RPDLimit**

Qual

Analyte Chloride

Result

ND 1.5

Sample ID LCS-18176

Prep Date: 3/17/2015

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Batch ID: 18176

RunNo: 24873

Analysis Date: 3/17/2015

SeqNo: 732772

Units: mg/Kg

%RPD **RPDLimit** HighLimit

Analyte

15.00

SPK value SPK Ref Val

SPK value SPK Ref Val

90

Qual

Chloride

%REC 94.2

110

PQL 14 1.5

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range Е
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
 - Page 5 of 8
- Sample pH Not In Range
- RLReporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503672 18-Mar-15

Client:

Souder, Miller and Associates

Lateral C-7

Project: Lateral C	- 7						
Sample ID MB-18172	SampType:	MBLK	Test	Code: EPA Method	8015D: Diesel Rang	e Organics	
Client ID: PBS	Batch ID:	18172	R	unNo: 24861	*		
Prep Date: 3/17/2015	Analysis Date:	3/17/2015	S	eqNo: 732781	Units: mg/Kg		
Analyte	Result PO	QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RF	D RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10		440 00.5	400		
Surr: DNOP	11 	10.00		113 63.5	128		
Sample ID LCS-18172	SampType:	LCS	Test	Code: EPA Method	8015D: Diesel Ranç	je Organics	
Client ID: LCSS	Batch ID:	18172	R	unNo: 24861			
Prep Date: 3/17/2015	Analysis Date:	3/17/2015	S	eqNo: 732873	Units: mg/Kg		
Analyte		QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RF	D RPDLimit	Qual
Diesel Range Organics (DRO)	47	10 50.00	0	93.8 67.8	130		
Surr: DNOP	4.9	5.000	_	97.4 63.5	128		
Sample ID 1503672-001AMS	SampType:	MS	Test	Code: EPA Method	l 8015D: Diesel Ranç	je Organics	
Client ID: SC-1	Batch ID:	18172	R	tunNo: 24861			
Prep Date: 3/17/2015	Analysis Date:	3/17/2015	S	eqNo: 733111	Units: mg/Kg		
Analyte	Result Po	QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RF	D RPDLimit	Qual
Diesel Range Organics (DRO)	190	10 49.80	92.72	191 29.2	176		S
Surr: DNOP	5.6	4.980		112 63.5	128		
Sample ID 1503672-001AMS	D SampType:	MSD	Test	Code: EPA Method	l 8015D: Diesel Rang	ge Organics	
Client ID: SC-1	Batch ID:	18172	· R	RunNo: 24861			
Prep Date: 3/17/2015	Analysis Date:	3/17/2015	S	SeqNo: 733126	Units: mg/Kg		
Analyte	Result Po	QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RF	D RPDLimit	Qual
Diesel Range Organics (DRO)	240	10 50.35	92.72	286 29.2	•		S
Surr: DNOP	5.9	5.035		117 63.5	128	0 0	
Sample ID MB-18142	SampType	: MBLK	Test	tCode: EPA Method	l 8015D: Diesel Rang	ge Organics	
Client ID: PBS	Batch ID:	18142	R	RunNo: 24861			
Prep Date: 3/16/2015	Analysis Date:	3/17/2015	S	SeqNo: 733137	Units: %REC		
Analyte	Result Po	QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RF	D RPDLimit	Qual
Surr: DNOP	11	10.00		108 63.5	128		
Sample ID LCS-18142	SampType	: LCS	Tes	tCode: EPA Method	I 8015D: Diesel Ran	ge Organics	
Client ID: LCSS	Batch ID:	18142	R	RunNo: 24861			
Prep Date: 3/16/2015	Analysis Date:	3/17/2015	S	SeqNo: 733142	Units: %REC		
Analyte	Result P	QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RF	D RPDLimit	Qual
Surr: DNOP	4.5	5.000		89.4 63.5	128		

Qualifiers:

Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

J Analyte detected below quantitation limits

RSD is greater than RSDlimit O

RPD outside accepted recovery limits R

Spike Recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit ND

Page 6 of 8

Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503672

18-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18158	Sampl	Type: Mi	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batcl	h ID: 18	158	F	RunNo: 2	4877				
Prep Date: 3/16/2015	Analysis [Date: 3/	17/2015	S	SeqNo: 733166 Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.4	80	120			
Sample ID LCS-18158	Samp	Type: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID: LCSS	Batc	h ID: 18	158	F	RunNo: 2	4877				
Prep Date: 3/16/2015	Analysis [Date: 3	/17/2015	S	SeqNo: 7	33167	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	64	130			
Surr: BFB	1000		1000		101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 7 of 8

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503672

18-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18158	SampTy	pe: MBLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch	ID: 18158	F	RunNo: 2	4877				
Prep Date: 3/16/2015	Analysis Da	ite: 3/17/2015	S	SeqNo: 7	33197	Units: mg/K	(g		
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050				٠.			
Toluene	ND	0.050							
Ethylbenzene	ND	0.050							
Xylenes, Total	ND	0.10							
Surr: 4-Bromofluorobenzene	1.1	1.000		108	. 80	120			

Sample ID LCS-18158	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	h ID: 18	158	F	RunNo: 2	4877				
Prep Date: 3/16/2015	Analysis D	Date: 3/	17/2015	S	SeqNo: 7	33198	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	1.000	0	116	76.6	128			
Toluene	1.1	0.050	1.000	0	110	75	124			
Ethylbenzene	1.1	0.050	1.000	0	112	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	111	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 8 of 8



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	SMA-FARM		Work Order N	umber:	1503672	?		RcptN	lo: 1		
Received by/dat	Ne	-	B/17/15			Λ.	tanal Allacio	n			
Logged By:	Lindsay Mar	ngin	3/17/2015 7:10:	00 AM		0	maay THays				
Completed By:	Lindsay Mar	ngin	3/17/2015 7:22:	34 AM		0	timalay Herby				
Reviewed By:	A50	3/17/15									
Chain of Cus									•		
1. Custody sea	als intact on san	nple bottles?			Yes []	No 🗌	Not Present	•		
2. Is Chain of	Custody comple	te?			Yes 🖪	Ď	No 🗌	Not Present			
3. How was the	e sample delive	red?			Courier					•	
Log In											
4. Was an atte	empt made to co	ool the samples	?		Yes 🗜	•	No 🗌	na [
5. Were all sai	mples received	at a temperatur	e of >0° C to 6.0°	С	Yes d	}	No 🗌	NA [)		
6. Sample(s) i	n proper contail	ner(s)?			Yes 🤄	•	No 🗌				
7. Sufficient sa	ample volume fo	or indicated test	(s)?		Yes 🛭	2	No 🗆				
8. Are sample:	s (except VOA a	and ONG) prope	rly preserved?		Yes d		No 🗌			•	
9. Was preser	vative added to	bottles?			Yes [No 🐼	NA [
10.VOA vials h	ave zero heads	pace?			Yes []	No 🗌	No VOA Vials	•		
11. Were any s	ample containe	rs received brol	en?		Yes	J	No 🗷	#			
						_		# of preserved bottles checked			
12.Does paper	work match bot epancies on cha				Yes 🗷	ď	No 🗆	for pH:	<2 or >	12 unless r	noted)
13. Are matrice		•	f Custody?		Yes 🖟	Đ	No 🗆	Adjusted?			
14. Is it clear w			,		Yes 星	-	No 🗆				
15. Were all ho	lding times able	to be met?			Yes 🖢	•	No 🗆	Checked b	y:		
(If no, notify	customer for a	uthorization.)									
Special Hang	dling (if ann	licahla)									
16. Was client			this order?		Yes [٦	No 🗌	NA §			
1	ne	crepancies with	and the second second second	_ 9	103 L						
	on Notified:	ingenitarian in the state of th		Date:		□ Db		. The Downer			
By W Rega	<u>.</u>			Via: [eMail	Phor	e 🗌 Fax	< ☐ In Person			
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17. Additional	,								.1		
18. Cooler Inf	ormation							•			
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⊋A/QC I ∃ Stan	аскаде:			l 4 (Full Validation)	Stave	- Mos	skal	TMBIG (8021)	+ TPH (Gas only)	/ DRO / MRO)			SIMS)		PO ₄ ,S	PCB			des	,		
Accredi	tation				Sampler:)csse	Soreour	□	문	ā			000	İ	δ,	082			10	1		_
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∃ EDD	(Type)_				Sample Tem	berature: る。	0 · : · · ·		HB.	<u>5</u>	8 4	B	0 0	stats	ž	ge	হ	-VC		- 1	- {	1
Date	Time	Matrix	Sam	iple Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX +	BTEX + MTBE	TPH 8015B (GRO	TPH (Method	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	300.0			Air Bubbles (Y or N)
6-15	1974	Soil	SC		1 402 Mack X	Real	-001	Ž		X									X			
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6/12	1000	yuu	W LIN	Wallets HEnvironmental may be sub-	contracted to other ac	credited laboratori	This serves as notice of	this poss	ibility.	Anv su	ib-contr	acted	data v	vill be	clearly	v notat	ed on	the ar	nalytica	al report.		



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 19, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401 TEL: (505) 325-5667

FAX

RE: Lateral C-7

OrderNo.: 1503746

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/18/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-5

Project: Lateral C-7

Collection Date: 3/17/2015 10:15:00 AM

Lab ID: 1503746-001

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE.ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	15	10	mg/Kg	1	3/18/2015 1:12:03 PM	1 18173
Surr: DNOP	106	63.5-128	%REC	1	3/18/2015 1:12:03 PM	1 18173
EPA METHOD 8015D: GASOLINE R	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	. 1	3/18/2015 11:23:40 A	M 18167
Surr. BFB	91.4	80-120	%REC	1	3/18/2015 11:23:40 A	M 18167
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.035	mg/Kg	1	3/18/2015 11:23:40 A	M 18167
Toluene	ND	0.035	mg/Kg	1	3/18/2015 11:23:40 A	M 18167
Ethylbenzene	. ND	0.035	mg/Kg	1	3/18/2015 11:23:40 A	M 18167
Xylenes, Total	ND	0.069	mg/Kg	1	3/18/2015 11:23:40 A	M 18167
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/18/2015 11:23:40 A	M 18167
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/18/2015 10:29:03 A	M 18203
			*			

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6

Project: Lateral C-7

Collection Date: 3/17/2015 10:18:00 AM

Lab ID: 1503746-002 M

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/18/2015 1:33:44 PM	1 18173
Surr: DNOP	106	63.5-128	%REC	1	3/18/2015 1:33:44 PM	18173
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	- 1	3/18/2015 11:52:24 A	M 18167
Surr: BFB	90.4	80-120	%REC	1	3/18/2015 11:52:24 A	M 18167
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.036	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Toluene	ND	0.036	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Ethylbenzene	ND	0.036	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Xylenes, Total	ND	0.072	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Surr: 4-Bromofluorobenzene	104	80-120	%REC	1	3/18/2015 11:52:24 A	M 18167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-7

Project: Lateral C-7

Collection Date: 3/17/2015 10:21:00 AM

Lab ID: 1503746-003

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/18/2015 1:55:25 PM	1 18173
Surr: DNOP	104	63.5-128	%REC	1	3/18/2015 1:55:25 PM	1 18173
EPA METHOD 8015D: GASOLINE RA	NGE	•			Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	3/18/2015 12:21:12 P	M 18167
Surr: BFB	92.8	80-120	%REC	1	3/18/2015 12:21:12 P	M 18167
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.036	mg/Kg	1	3/18/2015 12:21:12 P	M 18167
Toluene	ND	0.036	mg/Kg	1	3/18/2015 12:21:12 P	M 18167
Ethylbenzene	ND	0.036	mg/Kg	1	3/18/2015 12:21:12 P	M 18167
Xylenes, Total	ND	0.071	mg/Kg	1	3/18/2015 12:21:12 P	M 18167
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/18/2015 12:21:12 P	M 18167
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	. 20	3/18/2015 10:41:27 A	M 18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-8

Project: Lateral C-7

Collection Date: 3/17/2015 10:24:00 AM

Lab ID: 1503746-004

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS					Analy	st: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/18/2015 2:17:18 PM	18173
Surr: DNOP	109	63.5-128		%REC	1	3/18/2015 2:17:18 PM	18173
EPA METHOD 8015D: GASOLINE RA	NGE					Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	3/18/2015 12:49:55 F	M 18167
Surr: BFB	126	80-120	s	%REC	1	3/18/2015 12:49:55 F	M 18167
EPA METHOD 8021B: VOLATILES						Analy	st: NSB
Benzene	ND	0.032		mg/Kg	1	3/18/2015 12:49:55 F	M 18167
Toluene	ND	0.032		mg/Kg	1	3/18/2015 12:49:55 F	M 18167
Ethylbenzene	ND	0.032		mg/Kg	1	3/18/2015 12:49:55 F	M 18167
Xylenes, Total	ND	0.063		mg/Kg	1	3/18/2015 12:49:55 F	M 18167
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	3/18/2015 12:49:55 F	M 18167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-9

Project: Lateral C-7

Collection Date: 3/17/2015 10:27:00 AM

Lab ID: 1503746-005

Matrix: MEOH (SOIL)

Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analys	: JME
Diesel Range Organics (DRO)	24	10	mg/Kg	1	3/18/2015 2:39:02 PM	18173
Surr: DNOP	103	63.5-128	%REC	1	3/18/2015 2:39:02 PM	18173
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	: NSB
Gasoline Range Organics (GRO)	ND	. 3.3	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Surr: BFB	90.6	80-120	%REC	1	3/18/2015 1:18:37 PM	18167
EPA METHOD 8021B: VOLATILES					Analys	: NSB
Benzene	ND	0.033	mg/Kg	. 1	3/18/2015 1:18:37 PM	18167
Toluene	ND	0.033	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Ethylbenzene	ND	0.033	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Xylenes, Total	ND	0.066	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/18/2015 1:18:37 PM	18167
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/18/2015 10:53:53 AM	1 18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Project: Lateral C-7

Client Sample ID: SC-10

Collection Date: 3/17/2015 10:30:00 AM

Lab ID: 1503746-006

Matrix: MEOH (SOIL)

Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS		-		Analyst	: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/18/2015 3:02:17 PM	18173
Surr: DNOP	103	63.5-128	%REC	1	3/18/2015 3:02:17 PM	18173
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Surr: BFB	91.9	80-120	%REC	1	3/18/2015 7:03:18 PM	18167
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.032	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Toluene	ND	0.032	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Ethylbenzene	ND	0.032	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Xylenes, Total	ND	0.064	mg/Kg	1.	3/18/2015 7:03:18 PM	18167
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/18/2015 7:03:18 PM	18167
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/18/2015 11:06:17 AM	18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 6 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Project: Lateral C-7

Client Sample ID: SC-11

Collection Date: 3/17/2015 10:33:00 AM

Lab ID: 1503746-007

Matrix: MEOH (SOIL)

Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	: JME
Diesel Range Organics (DRO)	25	9.9	mg/Kg	1	3/18/2015 3:24:05 PM	18173
Surr: DNOP	110	63.5-128	%REC	1	3/18/2015 3:24:05 PM	18173
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Surr: BFB	108	80-120	%REC	1	3/18/2015 7:32:05 PM	18167
EPA METHOD 8021B: VOLATILES					Analys	: NSB
Benzene	ND	0.033	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Toluene	ND	0.033	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Ethylbenzene	ND	0.033	mg/Kg ⁻	1	3/18/2015 7:32:05 PM	18167
Xylenes, Total	ND	0.067	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Surr: 4-Bromofluorobenzene	109	80-120	%REC	1	3/18/2015 7:32:05 PM	18167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 7 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Project: Lateral C-7

Client Sample ID: SC-12

Collection Date: 3/17/2015 10:36:00 AM

Lab ID: 1503746-008

Matrix: MEOH (SOIL)

Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS					Analyst	: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/18/2015 3:46:00 PM	18173
Surr: DNOP	100	63.5-128		%REC	1	3/18/2015 3:46:00 PM	18173
EPA METHOD 8015D: GASOLINE R.	ANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	4.1	2.9		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Surr: BFB	125	80-120	s	%REC	1	3/18/2015 8:00:49 PM	18167
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.029		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Toluene	ND	0.029		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Ethylbenzene	ND	0.029		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Xylenes, Total	ND	0.059		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/18/2015 8:00:49 PM	18167
EPA METHOD 300.0: ANIONS						Analyst	: LGT
Chloride	ND	30		mg/Kg	20	3/18/2015 11:18:41 AM	18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 8 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-13

Project: Lateral C-7

Collection Date: 3/17/2015 10:39:00 AM

Lab ID: 1503746-009

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/18/2015 4:07:36 PM	18173
Surr: DNOP	103	63.5-128	%REC	1	3/18/2015 4:07:36 PM	18173
EPA METHOD 8015D: GASOLINE R.	ANGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Surr: BFB	91.6	80-120	%REC	1	3/18/2015 8:29:31 PM	18167
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.030	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Toluene	ND	0.030	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Ethylbenzene	ND	0.030	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Xylenes, Total	ND	0.059	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	.3/18/2015 8:29:31 PM	18167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503746

19-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18203

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 18203

RunNo: 24924

Prep Date:

3/18/2015

Analysis Date: 3/18/2015

SeqNo: 734344

Units: mg/Kg

RPDLimit Qual-

Analyte Chloride

PQL

1.5

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

Sample ID LCS-18203

SampType: LCS

TestCode: EPA Method 300.0: Anions

RunNo: 24924

Prep Date: 3/18/2015

Batch ID: 18203 Analysis Date: 3/18/2015

PQL

SeqNo: 734345

Units: mg/Kg

Analyte

Client ID: LCSS

Result

ND

SPK value SPK Ref Val %REC

HighLimit

%RPD **RPDLimit**

Qual

Result

95.4

Chloride

14

1.5

15.00

90

110

Qualifiers:

E

Value exceeds Maximum Contaminant Level.

Analyte detected below quantitation limits J RSD is greater than RSDlimit 0

RPD outside accepted recovery limits R

Value above quantitation range

Spike Recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Sample pH Not In Range

Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1503746

19-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18173	Sampi	ype: ME	BLK	Tes	tCode: El	PA Method	od 8015D: Diesel Range Organics							
Client ID: PBS	Batcl	n ID: 18	173	F	RunNo: 2	4890								
Prep Date: 3/18/2015	Analysis D)ate: 3/	18/2015	S	SeqNo: 7	33846	Units: mg/h	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Diesel Range Organics (DRO)	ND	10												
Surr: DNOP	10		10.00		100	63.5	128							

Sample ID LCS-18173	SampT	ype: LC	s	Test	:Code: El	PA Method	8015D: Dies	el Range C	Organics		
Client ID: LCSS	Batch	ID: 18	173	R	unNo: 2	4890					
Prep Date: 3/18/2015	Analysis D	ate: 3/	18/2015	S	33847	847 Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	10	50.00	0	93.7	67.8	130				
Surr: DNOP	4.3		5.000		85.3	63.5	128				

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1503746

19-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18167	Samp	Гуре: М	BLK	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	je	
Client ID: PBS	Batc	Batch ID: 18167 RunNo: 2490				4903				
Prep Date: 3/16/2015	Analysis Date: 3/18/2015 SeqNo: 733915				Units: mg/k	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.5	80	120			
Sample ID LCS-18167	Samp	Type: L C	cs	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	je	· ·
Client ID: LCSS	Batc	h ID: 18	167	RunNo: 24903						
Draw Date: 0/40/0045	A naturaia E	a	40/0045	,	`ambla. 7	00040	1 laika 11	•		

Sample ID LCS-18167	SampType: LCS TestCode: EPA Method					8015D: Gasc	line Rang	e		
Client ID: LCSS	Batch	n ID: 18	167	F	RunNo: 24	4903				
Prep Date: 3/16/2015	Analysis D)ate: 3/	18/2015	S	SeqNo: 7 :	33916	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	64	130			
Surr: BFB	1000		1000		101	80	120			
										•

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1503746

19-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18167	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch	n ID: 18	167	F	RunNo: 2	4903				
Prep Date: 3/16/2015	Analysis Date: 3/18/2015			9	SeqNo: 7	33941	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050					****			
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID LCS-18167	mple ID LCS-18167 SampType: LCS					TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch	h ID: 18	167	F	RunNo: 2	4903								
Prep Date: 3/16/2015	9: 3/16/2015 Analysis Date: 3/18/2015			5	SeqNo: 7	33942	Units: mg/k	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	1.2	0.050	1.000	0	122	76.6	128	•						
Toluene	1.1	0.050	1.000	0	115	75	· 124							
Ethylbenzene	1.2	0.050	1.000	0	116	79.5	126							
Xylenes, Total	3.4	0.10	3.000	0	115	78.8	124							
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120							

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	SMA-FARM	Work Order Number:	1503746		RcptNo:	1
Received by/dat	` '	3/18/15 249/2015 7:10:00 AM		Street Motor		
Logged By:	Lindsay Mangin			ostudition		The state of the s
Completed By:	Lindsay Mangin	_		James Tropics		
Reviewed By:	1503/1	8/15				1
Chain of Cus			()	🗖		
	als intact on sample	bottles?	Yes ∐	No ∐	Not Present	
2. Is Chain of	Custody complete?		Yes 🗹	No 🗆	Not Present	
3. How was the	e sample delivered?		Courier			
Log In						
4. Was an atte	empt made to cool t	he samples?	Yes 🗹	No 🗌	NA 🗆	
5. Were all sa	mples received at a	temperature of >0° C to 6.0°C	Yes 🗹	No 🗆	· NA 🗌	
6. Sample(s)	in proper container(s	s)?	Yes 🗹	No 🗔		
7. Sufficient sa	ample volume for inc	dicated test(s)?	Yes 🗹	No 🗌		
8. Are sample	s (except VOA and	ONG) properly preserved?	Yes 🕏	No 🗆		
9. Was preser	vative added to bott	les?	Yes	No 🗹	NA 🗌	
10.VOA vials h	nave zero headspace	e?	Yes 🗌	No 🗆	No VOA Vials 🗑	
11. Were any s	sample containers re	eceived broken?	Yes	No 🗹	# of preserved	
					bottles checked	
	work match bottle la epancies on chain o		Yes 🗹	No 🗔	for pH: (<2 o	r >12 unless noted)
-		f on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?	•••
	hat analyses were re		Yes 🗹	No 🗆		
	liding times able to by customer for autho		Yes 🗹	No 🗆	Checked by:	
(ii no, nom)	Costoliter for autific	nization.)				
Special Han	dling (if applica	nble)				
16. Was client	notified of all discre	pancies with this order?	Yes 🗌	No 🗆	NA 🐼	
Perso	on Notified:	Date:	The second secon	and the second s	,	
By W	/hom:	Via:	eMail	Phone Fax	n Person	
Rega	rding:	en versionel de la section de	*******		A CONTRACTOR OF THE PROPERTY O	
Clien	t Instructions:					
17. Additional	remarks:			· "		
18. Cooler Int	formation				•	
Cooler		ondition Seal Intact Seal No	Seal Date	Signed By		
1	1.0 God	od Yes		et an lard Amiljone (1885 species 1885 species 1885 species 1885 species 1885 species 1885 species 1885 species		
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Client:	5	M		·	☐ Standard	Rust	Some day											MEI RA			
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Phone:		8	505	325 3478	, L	12060°	1				2"	, A	naly	/sis	Req	uest			70.5		
email o	r Fax#:	Steren	. nostal	@ Souls	Project Mana	ager:			(Ş	P	7) ₄)							T
	Package:			ری دیا (Full Validation)		re Ma	skel	TMB's (8021)	TPH (Gas only)			SIMS)		04,80	PCB's			Say			
Accredi			Level 4	(Full Validation)	1		·	- 18	I I	출) _				J ₂ , P	8082		į	110			
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□ EDD	(Type)				Sample Tem		1/10	1	ig N	2 ₹	d 5(ō	tals	N,	ges		9	1			≥
Date	Time	Matrix	Samp	le Request ID	Container Type and #	Preservative Type	HEAL NO	BTEX)+ M#	BTEX + MTBE	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides /	8260B (VOA)	8270 (Semi-VOA)	300.0	!		Air Bubbles
5-17	1015	Soil	56-1	9 5	140% Mebly 141	neoU	-001	X			1	-			-			K	7	1	1
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7	f necessary,	samples sub	mitted to Hall E	nvironmental may be subc	contracted to other a	ccredited laboratori	es. This serves as notice of this	s possib	ility. An	y sub-co	ntracte	data	yvill the	dearl	ly nota	ted on	the ar	nalytical	report.		



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 23, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401 TEL: (505) 325-5667

FAX

RE: Lateral C-7

OrderNo.: 1503845

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 20 sample(s) on 3/19/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the OC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Project: Lateral C-7

Lab ID: 1503845-001

Client Sample ID: SC-14 N Wall

Collection Date: 3/18/2015 1:43:00 PM

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	EPA METHOD 8015D: DIESEL RANGE ORGANICS					: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/19/2015 10:34:09 AM	18221
Surr: DNOP	107	63.5-128	%REC	1	3/19/2015 10:34:09 AM	18221
EPA METHOD 8015D: GASOLINE R	ANGE		•		Analyst	: NSB
Gasoline Range Organics (GRO)	ND	2.8	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Surr: BFB	92.2	80-120	%REC	1	3/19/2015 2:24:40 PM	18213
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.028	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Toluene	ND	0.028	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Ethylbenzene	ND	0.028	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Xylenes, Total	ND	0.056	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	3/19/2015 2:24:40 PM	18213
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 11:22:22 AM	18226

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 1 of 30
- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-15 N Back

Project: Lateral C-7

Collection Date: 3/18/2015 1:46:00 PM

Lab ID: 1503845-002

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS	• • • • • • • • • • • • • • • • • • • •			Analys	t: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/19/2015 11:01:40 AM	1 18221
Surr: DNOP	117	63.5-128	%REC	1	3/19/2015 11:01:40 AM	18221
EPA METHOD 8015D: GASOLINE R.	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	2.9	mg/Kg	1	3/19/2015 10:05:57 AM	1 18213
Surr: BFB	92.8	80-120	%REC	1	. 3/19/2015 10:05:57 AM	18213
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.029	mg/Kg	1	3/19/2015 10:05:57 AM	18213
Toluene	ND	0.029	mg/Kg	1	3/19/2015 10:05:57 AM	18213
Ethylbenzene	ND	0.029	mg/Kg	1	3/19/2015 10:05:57 AM	18213
Xylenes, Total	ND	0.057	mg/Kg	1	3/19/2015 10:05:57 AM	1 18213
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	3/19/2015 10:05:57 AM	18213
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 11:59:35 AM	18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-16 N Wall Deep

Lateral C-7 Project: Lab ID: 1503845-003

Collection Date: 3/18/2015 1:49:00 PM Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	EPA METHOD 8015D: DIESEL RANGE ORGANICS					/st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 11:28:54	AM 18221
Surr: DNOP	121	63.5-128	%REC	1	3/19/2015 11:28:54	AM 18221
EPA METHOD 8015D: GASOLINE R	ANGE				Analy	/st: NSB
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	3/19/2015 10:34:46	AM 18213
Surr: BFB	93.4	80-120	%REC	1	3/19/2015 10:34:46	AM 18213
EPA METHOD 8021B: VOLATILES					Analy	/st: NSB
Benzene	ND	0.030	mg/Kg	1	3/19/2015 10:34:46	AM 18213
Toluene	ND	0.030	mg/Kg	1	3/19/2015 10:34:46 /	AM 18213
Ethylbenzene	ND	0.030	mg/Kg	1	3/19/2015 10:34:46 /	AM 18213
Xylenes, Total	ND	0.061	mg/Kg	1	3/19/2015 10:34:46 /	AM 18213
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/19/2015 10:34:46	AM 18213
EPA METHOD 300.0: ANIONS					Analy	yst: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 12:12:00	PM 18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 30

- Sample pH Not In Range
- Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-17 N Deep Base

Project: Lateral C-7

Collection Date: 3/18/2015 1:52:00 PM

Lab ID: 1503845-004

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	EPA METHOD 8015D: DIESEL RANGE ORGANICS					t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 12:01:59 PM	1 18221
Surr: DNOP	114	63.5-128	%REC	1	3/19/2015 12:01:59 PM	1 18221
EPA METHOD 8015D: GASOLINE R.	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Surr: BFB	93.6	80-120	%REC	1	3/19/2015 2:53:25 PM	R24929
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.033	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Toluene	ND	0.033	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Ethylbenzene	ND	0.033	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Xylenes, Total	ND	0.067	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Surr. 4-Bromofluorobenzene	107	80-120	%REC	1	3/19/2015 2:53:25 PM	R24929
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 12:49:13 PM	18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 4 of 30
- Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Project: Lateral C-7

1503845-005 Lab ID:

Client Sample ID: SC-18 S Deep Base

Collection Date: 3/18/2015 1:55:00 PM Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS					Analy	st: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/19/2015 12:29:22 F	PM 18221
Surr: DNOP	115	63.5-128	%REC	1	3/19/2015 12:29:22 F	PM 18221
EPA METHOD 8015D: GASOLINE RA	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Surr: BFB	94.3	80-120	%REC	1	3/19/2015 11:03:30 A	M 18213
EPA METHOD 8021B: VOLATILES	•				Analy	st: NSB
Benzene	ND	0.033	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Toluene	ND	0.033	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Ethylbenzene	ND	. 0.033	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Xylenes, Total	ND	0.066	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/19/2015 11:03:30 A	M 18213
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:01:38 PM	M 18226

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 5 of 30

- Sample pH Not In Range
- Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-19 S Deep Wall

Project: Lateral C-7

Collection Date: 3/18/2015 1:58:00 PM

Lab ID: 1503845-006

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 10:38:27 A	M 18221
Surr: DNOP	106	63.5-128	%REC	1	3/19/2015 10:38:27 A	M 18221
EPA METHOD 8015D: GASOLINE RA	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	2.8	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Surr: BFB	93.5	80-120	%REC	1	3/19/2015 11:32:18 A	M 18213
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.028	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Toluene	ND	0.028	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Ethylbenzene	ND	0.028	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Xylenes, Total	ND	0.056	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	3/19/2015 11:32:18 A	M 18213
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:14:02 PM	M 18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 6 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Project: Lateral C-7

Lab ID: 1503845-007

Client Sample ID: SC-20 S Back

Collection Date: 3/18/2015 2:01:00 PM

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	EPA METHOD 8015D: DIESEL RANGE ORGANICS					: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 10:59:55 AM	18221
Surr: DNOP	107	63.5-128	%REC	1	3/19/2015 10:59:55 AM	18221
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Surr: BFB	92.4	80-120	%REC	1	3/19/2015 7:11:46 PM	R24929
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.032	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Toluene	. ND	0.032	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Ethylbenzene	ND	0.032	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Xylenes, Total	ND	0.064	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/19/2015 7:11:46 PM	R24929
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:26:27 PM	18226

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 7 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-21 S Wall

Project: Lateral C-7

Lab ID: 1503845-008 Collection Date: 3/18/2015 2:04:00 PM Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS					Analys	st: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 11:21:29 A	M 18221
Surr: DNOP	98.4	63.5-128	%REC	1	3/19/2015 11:21:29 A	M 18221
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	3.1	mg/Kg	1	3/19/2015 12:01:01 P	M 18213
Surr: BFB	93.7	80-120	%REC	1	3/19/2015 12:01:01 P	M 18213
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.031	mg/Kg	1	3/19/2015 12:01:01 P	M 18213
Toluene	ND	0.031	mg/Kg	1	3/19/2015 12:01:01 P	M 18213
Ethylbenzene	ND	0.031	mg/Kg	1	3/19/2015 12:01:01 P	M 18213
Xylenes, Total	ND	0.062	mg/Kg	1	3/19/2015 12:01:01 P	M 18213
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/19/2015 12:01:01 P	M 18213
EPA METHOD 300.0: ANIONS					Analys	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:38:51 PM	- 18226

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range Ε
- Analyte detected below quantitation limits
- RSD is greater than RSDlimit
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-22 NE Wall

Project: Lateral C-7

Collection Date: 3/18/2015 2:07:00 PM

Lab ID: 1503845-009

Matrix: SOIL Received Date:

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL _, Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	EPA METHOD 8015D: DIESEL RANGE ORGANICS					: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 11:42:50 AM	18221
Surr: DNOP	102	63.5-128	%REC	1	3/19/2015 11:42:50 AM	18221
EPA METHOD 8015D: GASOLINE R.	ANGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Surr: BFB	93.4	80-120	%REC	1	3/19/2015 7:40:31 PM	R24929
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.032	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Toluene	ND	0.032	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Ethylbenzene	ND	0.032	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Xylenes, Total	ND	0.064	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Surr: 4-Bromofluorobenzene	108	80-120	%REC	1	3/19/2015 7:40:31 PM	R24929
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:51:16 PM	18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Lateral C-7

1503845-010 Lab ID:

Project:

Matrix: SOIL

Client Sample ID: SC-23 NE Wall 2 **Collection Date:** 3/18/2015 2:10:00 PM

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: ЈМЕ
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 12:04:23 PM	18221
Surr: DNOP	99.1	63.5-128	%REC	1	3/19/2015 12:04:23 PM	18221
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 2:03:40 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	cadg
Benzene	ND	0.036	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Toluene	ND	0.036	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Ethylbenzene	ND	0.036	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Xylenes, Total	ND	0.071	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Surr: 1,2-Dichloroethane-d4	99.1	70-130	%REC	1	3/19/2015 3:02:05 PM	R24920
Surr: 4-Bromofluorobenzene	102	70-130	%REC	1	3/19/2015 3:02:05 PM	R24920
Surr: Dibromofluoromethane	102	70-130	%REC	1	3/19/2015 3:02:05 PM	R24920
Surr: Toluene-d8	. 88.1	70-130	%REC	1	3/19/2015 3:02:05 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	: cadg
Gasoline Range Organics (GRO)	ŅD	3.6	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Surr: BFB	110	67.4-150	%REC	1	3/19/2015 3:02:05 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- . Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 10 of 30
- P Sample pH Not In Range
- Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-24 E Wall Deep

Project: Lateral C-7

Collection Date: 3/18/2015 2:13:00 PM

Lab ID: 1503845-011

Matrix: SOIL Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	EPA METHOD 8015D: DIESEL RANGE ORGANICS					st: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 12:25:48 PI	M 18221
Surr: DNOP	101	63.5-128	%REC	1	3/19/2015 12:25:48 P	M 18221
EPA METHOD 8015D: GASOLINE R.	ANGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	2.9	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Surr: BFB	94.5	80-120	%REC	1	3/19/2015 12:29:43 P	M 18213
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.029	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Toluene ·	ND	0.029	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Ethylbenzene	ND	0.029	mg/Kg	. 1	3/19/2015 12:29:43 P	M 18213
Xylenes, Total	ND	0.058	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	3/19/2015 12:29:43 P	M 18213
EPA METHOD 300.0: ANIONS					Analys	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 2:16:05 PM	18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits .
- O RSD is greater than RSD limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-25 E Wall Deep South

Project: Lateral C-7

Collection Date: 3/18/2015 2:16:00 PM

Lab ID: 1503845-012

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF Date Analyzed Bate		
EPA METHOD 8015D: DIESEL RANG	EPA METHOD 8015D: DIESEL RANGE ORGANICS					
Diesel Range Organics (DRO)	ND	10	mg/Kg	1 3/19/2015 12:47:18 PM 1822		
Surr: DNOP	105	63.5-128	%REC	1 3/19/2015 12:47:18 PM 1822		
EPA METHOD 8015D: GASOLINE RA	ANGE			Analyst: NSB		
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1 3/19/2015 12:58:28 PM 1821		
Surr: BFB	94.0	80-120	%REC	1 3/19/2015 12:58:28 PM 1821		
EPA METHOD 8021B: VOLATILES				Analyst: NSE		
Benzene	ND	0.032	mg/Kg	1 3/19/2015 12:58:28 PM 1821		
Toluene	ND	0.032	mg/Kg	1 3/19/2015 12:58:28 PM 1821		
Ethylbenzene	ND	0.032	mg/Kg	1 3/19/2015 12:58:28 PM 1821		
Xylenes, Total	ND	0.065	mg/Kg	1 3/19/2015 12:58:28 PM 1821		
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1 3/19/2015 12:58:28 PM 1821		
EPA METHOD 300.0: ANIONS				Analyst: LGT		
Chloride	ND	30	mg/Kg	20 3/19/2015 2:28:29 PM 1822		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

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- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-26 E Wall S

Project: Lateral C-7

Collection Date: 3/18/2015 2:19:00 PM

Lab ID: 1503845-013

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 1:08:43 PM	18221
Surr: DNOP	108	63.5-128	%REC	1	3/19/2015 1:08:43 PM	18221
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 2:40:54 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.035	mg/Kg	1	3/19/2015 11:11:41 AN	1 R24920
Toluene	ND	0.035	mg/Kg	1,	3/19/2015 11:11:41 AM	1 R24920
Ethylbenzene	ND	0.035	mg/Kg	1	3/19/2015 11:11:41 AM	1 R24920
Xylenes, Total	ND	0.070	mg/Kg	1	3/19/2015 11:11:41 AN	1 R24920
Surr: 1,2-Dichloroethane-d4	97.3	70-130	%REC	1	3/19/2015 11:11:41 AN	1 R24920
Surr: 4-Bromofluorobenzene	99.6	70-130	%REC	1	3/19/2015 11:11:41 AN	R24920
Surr: Dibromofluoromethane	101	70-130	%REC	1	3/19/2015 11:11:41 AN	R24920
Surr: Toluene-d8	94.1	70-130	%REC	1	3/19/2015 11:11:41 AN	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	3/19/2015 11:11:41 AN	R24920
Surr: BFB	110	67.4-150	%REC	1	3/19/2015 11:11:41 AN	/ R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-27 E Wall S2

Project: Lateral C-7

Collection Date: 3/18/2015 2:22:00 PM

Lab ID: 1503845-014

Matrix: SOIL Received Da

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 1:30:10 PM	18221
Surr: DNOP	110	63.5-128	%REC	1	3/19/2015 1:30:10 PM	18221
EPA METHOD 300.0: ANIONS					Analys	: LGT
Chloride .	ND	30	mg/Kg	20	3/19/2015 3:18:06 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	cadg
Benzene	ND	0.030	mg/Kg	1	3/19/2015 11:40:28 AM	R24920
Toluene	ND	0.030	mg/Kg	1	3/19/2015 11:40:28 AM	R24920
Ethylbenzene	ND	0.030	mg/Kg	1	3/19/2015 11:40:28 AM	R24920
Xylenes, Total	ND	0.060	mg/Kg	1	3/19/2015 11:40:28 AM	R24920
Surr: 1,2-Dichloroethane-d4	105	70-130	%REC	1	3/19/2015 11:40:28 AM	R24920
Surr: 4-Bromofluorobenzene	105	70-130	%REC	1	3/19/2015 11:40:28 AM	R24920
Surr: Dibromofluoromethane	107	70-130	%REC	1	3/19/2015 11:40:28 AM	R24920
Surr: Toluene-d8	96.0	70-130	%REC	1	3/19/2015 11:40:28 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyş	cadg
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	3/19/2015 11:40:28 AM	R24920
. Surr: BFB	111	67.4-150	%REC	1	3/19/2015 11:40:28 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-28 NW Wall

Project:

Lateral C-7

Collection Date: 3/18/2015 2:25:00 PM

Lab ID: 1503845-015

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 1:51:33 PM	18221
Surr: DNOP	113	63.5-128	%REC	1	3/19/2015 1:51:33 PM	18221
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	51	30	mg/Kg	20	3/19/2015 3:30:30 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.034	mg/Kg	1	3/19/2015 12:09:18 PM	/ R24920
Toluene	ND	0.034	mg/Kg	1	3/19/2015 12:09:18 PM	/ R24920
Ethylbenzene	ND	0.034	mg/Kg	1	3/19/2015 12:09:18 PM	/ R24920
Xylenes, Total	ND	0.068	mg/Kg	1	3/19/2015 12:09:18 PM	/ R24920
Surr: 1,2-Dichloroethane-d4	103	70-130	%REC	1	3/19/2015 12:09:18 PM	/ R24920
Surr: 4-Bromofluorobenzene	101	70-130	%REC	1	3/19/2015 12:09:18 PM	/ R24920
Surr: Dibromofluoromethane	106	70-130	%REC	1	3/19/2015 12:09:18 PM	/ R24920
Surr: Toluene-d8	93.0	70-130	%REC	1	3/19/2015 12:09:18 PM	A R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	3/19/2015 12:09:18 PM	M R24920
Surr: BFB	110	67.4-150	%REC	1	3/19/2015 12:09:18 PM	/I R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-29 NW Wall 2

Project: Lateral C-7

Collection Date: 3/18/2015 2:28:00 PM

Lab ID: 1503845-016

Matrix: SOIL Rec

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/19/2015 2:13:13 PM	18221
Surr: DNOP	. 108	63.5-128	%REC	1	3/19/2015 2:13:13 PM	18221
EPA METHOD 300.0: ANIONS				,	Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 3:42:55 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.036	mg/Kg	1	3/19/2015 12:38:02 PM	1 R24920
Toluene	ND	0.036	mg/Kg	1	3/19/2015 12:38:02 PN	1 R24920
Ethylbenzene	ND	0.036	mg/Kg	1	3/19/2015 12:38:02 PM	f R24920
Xylenes, Total	ND	0.072	mg/Kg	1	3/19/2015 12:38:02 PM	1 R24920
Surr: 1,2-Dichloroethane-d4	99.4	70-130	%REC	1	3/19/2015 12:38:02 PM	1 R24920
Surr: 4-Bromofluorobenzene	97.7	70-130	%REC	1	3/19/2015 12:38:02 PM	1 R24920
Surr: Dibromofluoromethane	103	70-130	%REC	1	3/19/2015 12:38:02 PM	1 R24920
Surr: Toluene-d8	92.4	70-130	%REC	1	3/19/2015 12:38:02 PM	1 R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	3/19/2015 12:38:02 PM	1 R24920
Surr: BFB	104	67.4-150	%REC	1	3/19/2015 12:38:02 PM	1 R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample 1D: SC-30 NW Wall 3

Project: Lateral C-7

Collection Date: 3/18/2015 2:31:00 PM

Lab ID: 1503845-017

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 2:34:36 PM	18221
Surr: DNOP	110	63.5-128	%REC	1	3/19/2015 2:34:36 PM	18221
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 3:55:20 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.045	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Toluene	ND	0.045	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Ethylbenzene	ND	0.045	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Xylenes, Total	ND	0.089	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Surr: 1,2-Dichloroethane-d4	98.3	70-130	%REC	1	3/19/2015 1:06:49 PM	R24920
Surr: 4-Bromofluorobenzene	94.3	70-130	%REC	1	3/19/2015 1:06:49 PM	R24920
Surr: Dibromofluoromethane	102	70-130	%REC	1	3/19/2015 1:06:49 PM	R24920
Surr: Toluene-d8	93.6	70-130	%REC	1	3/19/2015 1:06:49 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Surr: BFB	104	67.4-150	%REC	1	3/19/2015 1:06:49 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-31 SW Wall

Project: Lateral C-7

Collection Date: 3/18/2015 2:34:00 PM

Lab ID: 1503845-018

Matrix: SOIL Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 12:56:58 PM	18221
Surr: DNOP	113	63.5-128	%REC	1	3/19/2015 12:56:58 PM	18221
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 4:32:34 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	cadg
Benzene	ND	0.032	mg/Kg	1	3/19/2015 1:35:34 PM	.R24920
Toluene	ND	0.032	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Ethylbenzene .	ND	0.032	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Xylenes, Total	ND	0.065	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Surr: 1,2-Dichloroethane-d4	98.4	70-130	%REC	1	3/19/2015 1:35:34 PM	R24920
Surr: 4-Bromofluorobenzene	93.1	70-130	%REC	1	3/19/2015 1:35:34 PM	R24920
Surr: Dibromofluoromethane	104	70-130	%REC	1	3/19/2015 1:35:34 PM	R24920
Surr: Toluene-d8	89.5	70-130	%REC	1	3/19/2015 1:35:34 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: cadg
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Surr: BFB	101	67.4-150	%REC	1	3/19/2015 1:35:34 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 18 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-32 SW Wall 2

Project: Lateral C-7

Collection Date: 3/18/2015 2:37:00 PM

Lab ID: 1503845-019

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 1:24:03 PM	18221
Surr: DNOP	116	63.5-128	%REC	1	3/19/2015 1:24:03 PM	18221
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 4:44:58 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	: cadg
Benzene	ND	0.046	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Toluene	ND	0.046	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Ethylbenzene	ND	0.046	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Xylenes, Total	ND	0.093	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Surr: 1,2-Dichloroethane-d4	97.6	70-130	%REC	1	3/19/2015 2:04:20 PM	R24920
Surr: 4-Bromofluorobenzene	95.2	70-130	%REC	1	3/19/2015 2:04:20 PM	R24920
Surr: Dibromofluoromethane	103	70-130	%REC	1	3/19/2015 2:04:20 PM	R24920
Surr: Toluene-d8	93.1	70-130	%REC	1	3/19/2015 2:04:20 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	: cadg
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Surr: BFB	106	67.4-150	%REC	1	3/19/2015 2:04:20 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-33 SW Wall 3

Project: Lateral C-7

Collection Date: 3/18/2015 2:40:00 PM

Lab ID: 1503845-020

Matrix: SOIL Re

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS	,			Analys	t: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 1:51:18 PM	18221
Surr: DNOP	115	63.5-128	%REC	1	3/19/2015 1:51:18 PM	18221
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 4:57:23 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.034	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Toluene	ND	0.034	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Ethylbenzene	ND	0.034	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Xylenes, Total	ND	0.067	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Surr: 1,2-Dichloroethane-d4	102	70-130	%REC	1	3/19/2015 2:33:15 PM	R24920
Surr: 4-Bromofluorobenzene	90.8	70-130	%REC	1	3/19/2015 2:33:15 PM	R24920
Surr: Dibromofluoromethane	106	70-130	%REC	1	3/19/2015 2:33:15 PM	R24920
Surr: Toluene-d8	90.6	70-130	%REC	1	3/19/2015 2:33:15 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	. 3.4	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Surr: BFB	110	67.4-150	%REC	1	3/19/2015 2:33:15 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 20 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analysis Date: 3/19/2015

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Chloride

Prep Date: 3/19/2015

Lateral C-7

Sample ID MB-18226	SampType: MBLK	TestCode: EPA Method	d 300.0: Anions		
Client ID: PBS	Batch ID: 18226	RunNo: 24944			
Prep Date: 3/19/2015	Analysis Date: 3/19/2	15 SeqNo: 735228	Units: mg/Kg		
Analyte	Result PQL SPI	value SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Chloride	ND 1.5	11 11 11 11 11 11			·
Sample ID LCS-18226	SampType: LCS	TestCode: EPA Method	d 300.0: Anions		
Client ID: LCSS	Batch ID: 18226	RunNo: 24944			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.7	90	110			
Sample ID MB-18230	SampTy	pe: ME	BLK	Tes	tCode: E	PA Method	300.0: Anion	S		
Client ID: PBS	Batch	ID: 18	230	F	RunNo: 2	24944				
Prep Date: 3/19/2015	Analysis Da	ate: 3/	19/2015	\$	SeqNo: 7	35257	Units: mg/F	(g		
Analyte	Result	POL	SPK value	SPK Ref Val	%RFC	Lowl imit	Hight imit	%RPD	RPDI imit	Qual

SeqNo: 735229

Sample ID LCS-18230 TestCode: EPA Method 300.0: Anions SampType: LCS Client ID: LCSS Batch ID: 18230 RunNo: 24944 Prep Date: 3/19/2015 Analysis Date: 3/19/2015 SeqNo: 735258 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual LowLimit

Chloride 14 1.5 15.00 92.5 110

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- o RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Units: mg/Kg

- Sample pH Not In Range
- Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845 23-Mar-15

Client:

Souder, Miller and Associates

Project:		-7 									
Sample ID	MB-18221	SampTyp	e: ME	BLK	Test	Code: EF	PA Method	8015D: Diese	el Range C	rganics	
Client ID:	PBS	Batch II	D: 18	221	R	tunNo: 24	4 910				
Prep Date:	3/19/2015	Analysis Dat	e: 3/	19/2015	S	eqNo: 7	34182	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
_	Organics (DRO)	ND	10			,					
Surr: DNOP		9.7		10.00		97.4	63.5	128			
Sample ID	LCS-18221	SampTyp	e: LC	s	Test	Code: El	PA Method	8015D: Diese	el Range C	rganics	
Client ID:	LCSS	Batch II	D: 18 :	221	R	tunNo: 2	4910				
Prep Date:	3/19/2015	Analysis Dat	e: 3/	19/2015	S	eqNo: 7	34183	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	50	10	50.00	0	101	67.8	130			
Surr: DNOP		4.9		5.000		97.4	63.5	128			
Sample ID	MB-18201	SampTyp	e: ME	BLK	Test	Code: El	PA Method	8015D: Diese	el Range C	rganics	
Client ID:	PBS	Batch I	D: 18 :	201	R	RunNo: 2	4912				
Prep Date:	3/18/2015	Analysis Dat	e: 3/	19/2015	S	SeqNo: 7	34292	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		12		10.00		124	63.5	128			
Sample ID	MB-18211	SampTyp	e: ME	BLK	Tes	tCode: El	PA Method	8015D: Dies	el Range (rganics	
Client ID:	PBS	Batch I	D: 18	211	R	RunNo: 2	4910				
Prep Date:	3/18/2015	Analysis Dat	e: 3/	19/2015	S	SeqNo: 7	34296	Units: %RE	С		
Analyte	•	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte Surr: DNOP	· ·	Result 9.6	PQL	SPK value 10.00	SPK Ref Val	%REC 95.6	LowLimit 63.5	HighLimit 128	%RPD	RPDLimit	Qual
Surr: DNOP	1503845-001AMS			10.00		95.6	63.5	<u>-</u>			Qual
Surr: DNOP		9.6	pe: MS	10.00	Tesi	95.6	63.5 PA Method	128			Qual
Surr: DNOP Sample ID Client ID:	1503845-001AMS	9.6 SampTyp	D: 18	10.00 6 221	Tesi	95.6 tCode: El	63.5 PA Method	128	el Range (Qual
Sample ID Client ID: Prep Date:	1503845-001AMS SC-14 N Wall	9.6 SampTyp Batch I Analysis Dat	D: 18	10.00 S 221 19/2015	Tesi	95.6 tCode: El RunNo: 2 SeqNo: 7	63.5 PA Method	128 8015D: Diese	el Range (Qual
Surr: DNOP Sample ID Client ID: Prep Date: Analyte	1503845-001AMS SC-14 N Wall	9.6 SampTyp Batch I Analysis Dat	D: 18	10.00 S 221 19/2015	Tesi Fi S	95.6 tCode: El RunNo: 2 SeqNo: 7	63.5 PA Method 4912 34579	128 8015D: Diese Units: mg/k	el Range (Organics	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte	1503845-001AMS SC-14 N Wall 3/19/2015 Organics (DRO)	9.6 SampTyp Batch I Analysis Dat Result	De: M \$ D: 18 e: 3 /	10.00 6 221 19/2015 SPK value	Tesi F S SPK Ref Val	95.6 tCode: El RunNo: 2 SeqNo: 7 %REC	63.5 PA Method 4912 34579 LowLimit	128 8015D: Diese Units: mg/F HighLimit	el Range (Organics	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	1503845-001AMS SC-14 N Wall 3/19/2015 Organics (DRO)	9.6 SampTyr Batch I Analysis Dat Result 52 5.3	De: M\$ D: 18 de: 3/ PQL 10	10.00 5 221 19/2015 SPK value 50.15 5.015	Tesi F S SPK Ref Val 0	95.6 tCode: El RunNo: 2 SeqNo: 7: %REC 104 106	63.5 PA Method 4912 34579 LowLimit 29.2 63.5	128 8015D: Diese Units: mg/k HighLimit 176	el Range ((g %RPD	Organics RPDLimit	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	1503845-001AMS SC-14 N Wall 3/19/2015 Organics (DRO)	9.6 SampTyr Batch I Analysis Dat Result 52 5.3	De: MS D: 18 de: 3/ PQL 10 De: MS	10.00 5 221 19/2015 SPK value 50.15 5.015	Tesi R S SPK Ref Val 0	95.6 tCode: El RunNo: 2 SeqNo: 7: %REC 104 106	63.5 PA Method 4912 34579 LowLimit 29.2 63.5 PA Method	128 8015D: Diese Units: mg/k HighLimit 176 128	el Range ((g %RPD	Organics RPDLimit	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID:	1503845-001AMS SC-14 N Wall 3/19/2015 Organics (DRO)	9.6 SampTyr Batch I Analysis Date Result 52 5.3 D SampTyr	De: MS D: 18 de: 3/ PQL 10 De: MS D: 18	10.00 5 221 19/2015 SPK value 50.15 5.015	Test F S SPK Ref Val 0 Tes	95.6 tCode: El RunNo: 2 SeqNo: 7 %REC 104 106 tCode: El	63.5 PA Method 4912 34579 LowLimit 29.2 63.5 PA Method 4912	128 8015D: Diese Units: mg/k HighLimit 176 128	el Range (Organics RPDLimit	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range G Surr: DNOP Sample ID Client ID: Prep Date:	1503845-001AMS SC-14 N Wall 3/19/2015 Organics (DRO) 1503845-001AMS SC-14 N Wall	9.6 SampTyr Batch I Analysis Dat Result 52 5.3 D SampTyr Batch I	De: MS D: 18 de: 3/ PQL 10 De: MS D: 18	10.00 S 221 19/2015 SPK value 50.15 5.015 SD 221 19/2015	Test F S SPK Ref Val 0 Tes	95.6 tCode: El RunNo: 2 SeqNo: 7 %REC 104 106 tCode: El RunNo: 2	63.5 PA Method 4912 34579 LowLimit 29.2 63.5 PA Method 4912	128 8015D: Diese Units: mg/k HighLimit 176 128 8015D: Diese	el Range (Organics RPDLimit	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range Surr: DNOP Sample ID Client ID: Prep Date: Analyte	1503845-001AMS SC-14 N Wall 3/19/2015 Organics (DRO) 1503845-001AMS SC-14 N Wall	9.6 SampTyr Batch I Analysis Dat Result 52 5.3 D SampTyr Batch I Analysis Dat	D: 18 D: 18 D: 10 D: 10 D: 18 D: 18 D: 18	10.00 S 221 19/2015 SPK value 50.15 5.015 SD 221 19/2015	Tesi S SPK Ref Val 0 Tesi S	95.6 tCode: El RunNo: 2 SeqNo: 7 %REC 104 106 tCode: El RunNo: 2	63.5 PA Method 4912 34579 LowLimit 29.2 63.5 PA Method 4912 34670	128 8015D: Diese Units: mg/k HighLimit 176 128 8015D: Diese Units: mg/k	el Range (RPDLimit Organics	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit

Page 22 of 30

- P Sample pH Not In Range
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID LCS-18211

SampType: LCS

Client ID: LCSS

3/18/2015

Batch ID: 18211

RunNo: 24910

TestCode: EPA Method 8015D: Diesel Range Organics

PQL

Units: %REC

Analyte

Prep Date:

Result

Analysis Date: 3/19/2015

SeqNo: 734679

SPK value SPK Ref Val 5.000

%REC LowLimit HighLimit

128

RPDLimit Qual

Surr: DNOP

4.6

TestCode: EPA Method 8015D: Diesel Range Organics

91.0

RunNo: 24912

Prep Date: 3/18/2015

Client ID: LCSS

Sample ID LCS-18201

Batch ID: 18201

SeqNo: 734682

Units: %REC

Analyte

Analysis Date: 3/19/2015

SampType: LCS

SPK value SPK Ref Val

%REC 99.7

HighLimit

RPDLimit

Qual

Sum: DNOP

5.0

5.000

128

%RPD

%RPD

63.5

LowLimit

63.5

Result

Qualifiers:

Е

S

Value exceeds Maximum Contaminant Level.

Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits J o RSD is greater than RSDlimit

RPD outside accepted recovery limits R

Value above quantitation range

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded Not Detected at the Reporting Limit ND

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Sample pH Not In Range

RLReporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:	Lateral C-	-7 									
Sample ID	MB-18213	SampTyp	e: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID:	PBS	Batch IE	D: 18	213	F	RunNo: 24	4929				
Prep Date:	3/18/2015	Analysis Date	e: 3 /	19/2015	S	SeqNo: 7	34777	Units: mg/K	(g		
Analyte	<u> </u>	Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 930	5.0	1000		93.4	80	120			
Sample ID	LCS-18213	SampTyp	e: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	-
Client ID:	LCSS	Batch II	D: 18	213	F	RunNo: 2	4929				
Prep Date:	3/18/2015	Analysis Date	e: 3 /	19/2015	\$	SeqNo: 7	34778	Units: mg/F	(g		
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	e Organics (GRO)	27	5.0	25.00	0	107	64	130			
Surr: BFB		1000		1000		100	80	120			
Sample ID	B24	SampTyp	e: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID:	PBS	Batch II	D: R2	4929	F	RunNo: 2	4929				
Prep Date:		Analysis Date	e: 3 /	19/2015	9	SeqNo: 7	34794	Units: mg/k	(g		
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 940	5.0	1000		93.8	80	120			
Sample ID	2.5UG GRO LCS	SampTyp	e: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSS	Batch II	D: R2	24929	F	RunNo: 2	4929				
Prep Date:		Analysis Date	e: 3 /	/19/2015	5	SeqNo: 7	34795	Units: mg/k	ζg		
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	24	5.0	25.00	0	97.8	64	130			
Surr: BFB	_	1000		1000		101	80	120			
Sample ID	1503845-004AMS	SampTyp	e: M \$	8	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	SC-17 N Deep Bas	e Batch II): R2	24929	F	RunNo: 2	4929				
Prep Date:		Analysis Date	e: 3 /	19/2015	5	SeqNo: 7	34797	Units: mg/h	ξg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	16 660	3.3	16.71 668.4	0	92.8 99.2	47.9 80	144 120			
Sample ID	1503845-004AMSE) SampTyp	e: M :	SD	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	SC-17 N Deep Bas	se Batch II	D: R 2	24929	F	RunNo: 2	4929				
Prep Date:		Analysis Date	e: 3	/19/2015	5	SeqNo: 7	34798	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- RSD is greater than RSDlimit 0
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 24 of 30

- P Sample pH Not In Range
- RLReporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845 23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 1503845-004AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range SC-17 N Deep Base Batch ID: R24929 RunNo: 24929 Prep Date: Analysis Date: 3/19/2015 SeqNo: 734798 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 18 144 Gasoline Range Organics (GRO) 3.3 16.71 0 107 47.9 14.4 29.9 Surr: BFB 670 668.4 101 80 120 0 0

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 25 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID	MB-18213	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batch	1D: 18 :	213	F	RunNo: 2	4929				
Prep Date:	3/18/2015	Analysis D	ate: 3/	19/2015	S	SeqNo: 7	34804	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.050								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	ofluorobenzene	1.1		1.000		107	80	120			
Sample ID	LCS-18213	. Sampī	ype: LC	S ó	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batcl	1D: 18 :	213	F	RunNo: 2	4929				
Prep Date:	3/18/2015	Analysis E	ate: 3/	19/2015	S	SeqNo: 7	34805	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.050	1.000	0	103	76.6	128			
Toluene		0.98	0.050	1.000	0	97.8	75	124			
Ethylbenzene		0.97	0.050	1.000	0	96.8	79.5	126			
Xylenes, Total	•	2.9	0.10	3.000	0	96.7	78.8	124			
Surr: 4-Brom	nofluorobenzene	1.1		1.000		113	80	120			
Sample ID	B24	Samp1	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batcl	n ID: R2	4929	F	RunNo: 2	4929				
Prep Date:		Analysis D	ate: 3/	19/2015	9	SeqNo: 7	34825	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.050								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Bron	nofluorobenzene	1.1		1.000		107	80	120			
Sample ID	100NG BTEX LCS	Samp	ype: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	n ID: R2	4929	F	RunNo: 2	4929				
Prep Date:		Analysis [Date: 3/	19/2015	5	SeqNo: 7	34826	Units: mg/k	K g		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.050	1.000	0	115	76.6	128			
Toluene		1.1	0.050	1.000	0	110	75	124			
Ethylbenzene		1,1	0.050	1.000	0	110	. 79.5	126			

Qualifiers:

Xylenes, Total

Surr: 4-Bromofluorobenzene

Value exceeds Maximum Contaminant Level.

3.3

1.1

0.10

3.000

1.000

- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank

78.8

80

124

120

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

109

112

Page 26 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 1503845-007AMS	Sampl	ype: M \$	3	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: SC-20 S Back	Batc	h ID: R2	4929	F	RunNo: 2	4929				
Prep Date:	Analysis [Date: 3/	19/2015	\$	SeqNo: 7	34829	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.37	0.032	0.6414	0.005728	56.3	69.2	126			S
Toluene	0.34	0.032	0.6414	0.006138	52.5	65.6	128			s
Ethylbenzene	0.35	0.032	0.6414	0	54.5	65.5	138			s
Xylenes, Total	1.0	0.064	1.924	0	53.4	63	139			s
Surr: 4-Bromofluorobenzene	0.72		0.6414		112	80	120			
Sample ID 1503845-007AMS	D Samp	Гуре: М	SD	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: SC-20 S Back	h ID- Da	24020 PunNet 24020								

Sample ID 1503845-007AM	SD Samp1	SampType: MSD			TestCode: EPA Method 8021B: Volatiles									
Client ID: SC-20 S Back	Batcl	h ID: R2	4929	F	RunNo: 2	4929								
Prep Date:	Analysis [Date: 3/	19/2015	s	SeqNo: 7	34830	Units: mg/K	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.73	0.032	0.6414	0.005728	114	69.2	126	66.7	18.5	R				
Toluene	0.69	0.032	0.6414	0.006138	106	65.6	128	66.6	20.6	R				
Ethylbenzene	0.69	0.032	0.6414	0	107	65.5	138	65.1	20.1	R				
Xylenes, Total	2.0	0.064	1.924	0	107	63	139	66.4	21.1	R				
Surr: 4-Bromofluorobenzene	0.75		0.6414		116	80	120	0	0					

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 27 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Project: Lateral C	:-7 									
Sample ID 5mL rb	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: PB\$	Batch	n ID: R2	4920	F	RunNo: 2	4920				•
Prep Date:	Analysis D)ate: 3/	19/2015	\$	SeqNo: 7	34835	Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050					****			
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10							•	
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.53	•	0.5000		106	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.2	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			
Sample ID 100ng lcs	SampT	ype: LC	s	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: LCSS	Batch	n ID: R2	4920	· F	RunNo: 2	4920				
Prep Date:	Analysis D)ate: 3/	19/2015	5	SeqNo: 7	34836	Units: mg/K	ζg		
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70	130			
Toluene	1.1	0.050	1.000	0	109	. 70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.0	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			
Sample ID 1503845-013a ms	SampT	уре: М	 S	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: SC-26 E Wall S	Batch	n ID: R2	4920	F	Run N o: 2	4920				
Prep Date:	Analysis D	Date: 3/	19/2015	5	SeqNo: 7	34841	Units: mg/K	ζg		
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.035	0.7047	0	111	57.8	132			
Toluene	0.75	0.035	0.7047	0	106	54.8	139	•		
Surr: 1,2-Dichloroethane-d4	0.34		0.3524		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.34		0.3524		97.8	70	130			
Surr: Dibromofluoromethane	0.35		0.3524		100	70	130			
Surr: Toluene-d8	0.33		0.3524		94.2	70	130			•

Qua	lifi	ers	
Qua		CI 9	

Client ID:

Prep Date:

Analyte

Benzene

Toluene

Value exceeds Maximum Contaminant Level.

SampType: MSD

Batch ID: R24920

PQL

0.035

0.035

SPK value SPK Ref Val

0.7047

0.7047

Analysis Date: 3/20/2015

Result

0.75

0.71

E Value above quantitation range

Sample ID 1503845-013a msd

SC-26 E Wall S

- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank

LowLimit

57.8

54.8

TestCode: EPA Method 8260B: Volatiles Short List

Units: mg/Kg

132

139

%RPD

4.12

4.92

HighLimit

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

RunNo: 24920

SeqNo: 734842

%REC

107

101

0

0

Page 28 of 30

RPDLimit

20

20

Qual

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 1503845-013a msd	l SampTy _l	e: M	SD	Test	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: SC-26 E Wall S	Batch I	D: R2	24920	. F	RunNo: 2	4920				
Prep Date:	Analysis Da	e: 3	/20/2015	S	SeqNo: 7	34842	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.34		0.3524		97.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.35		0.3524		100	70	130	0	0	
Surr: Dibromofluoromethane	0.37		0.3524		104	70	130	0	0	
Surr: Toluene-d8	0.33		0.3524		94.2	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 29 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

13

320

3.0

15.11

302.1

Project:

Lateral C-7

Project:	Lateral C-	· /									
Sample ID	5mL rb	SampTy	pe: ME	BLK	Test	Code: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	PBS	Batch	ID: R2	4920	R	unNo: 2	4920				
Prep Date:		Analysis Da	ate: 3/	19/2015	S	eqNo: 7	34871	Units: mg/K	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB		490		500.0		97.6	67.4	150			
Sample ID	2.5ug gro lcs	SampTy	/pe: LC	S	Test	Code: El	PA Method	8015D Mod:	Gasoline l	Range	
Client ID:	LCSS	Batch	ID: R2	4920	R	lunNo: 2	4920				
Prep Date:		Analysis Da	ate: 3/	19/2015	S	eqNo: 7	34872	Units: mg/k	(g		
Analyte	_	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	25	5.0	25.00	0	100	79.9	135			
Surr: BFB		500		500.0		99.7	67.4	150			
Sample ID	1503845-014a ms	SampTy	/pe: M \$	3	Tes	Code: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	SC-27 E Wall S2	Batch	ID: R2	4920	F	lunNo: 2	4920				
Prep Date:		Analysis Da	ate: 3/	20/2015	S	eqNo: 7	34876	Units: mg/k	(g ·		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	14	3.0	15.11	0	93.3	65.2	156			
Surr: BFB		330		302.1		108	67.4	150			
Sample ID	1503845-014a msc	I SampTy	/pe: M \$	SD	Tes	Code: E	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	SC-27 E Wall S2	Batch	ID: R2	4920	F	lunNo: 2	4920				
Prep Date:		Analysis Da	ate: 3/	20/2015	S	eqNo: 7	34877	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range

Gasoline Range Organics (GRO)

Surr: BFB

- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

89.3

107

65.2

67.4

Page 30 of 30

4.34

0

20

0

156

150

- P Sample pH Not In Range
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

Website: www	hallenvironmental	.com		
Client Name: SMA-FARM Work Order Numb	er: 1503845		RcptNo:	1
Received by/date: 45 03 /19//5				
Logged By: Anne Thorne 3/19/2015 8:05:00 A	M	ame A.	_	
Completed By: Anne Thorne 3/19/2015		anne Am	_	
Reviewed By:				
Chain of Custody				
1. Custody seals intact on sample bottles?	Yes 🗌	No 🗌	Not Present 🗹	
2. Is Chain of Custody complete?	Yes 🗹	No 🗆	Not Present	
3. How was the sample delivered?	Courier			
<u>Log In</u>				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗀	NA 🗌	
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗆		
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗆		
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗌		
9. Was preservative added to bottles?	Yes 🗌	No 🗹	NA 🗆	
10.VOA vials have zero headspace?	Yes 🗌	No 🗆	No VOA Vials	
11. Were any sample containers received broken?	Yes 🗆	No 🗹	# of preserved bottles checked	111/11/11
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆	for pH:	r >12 unless note
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗹	No 🗌	.	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 📙	Checked by:	
Special Handling (if applicable)				
16. Was client notified of all discrepancies with this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified: Date	:			
By Whom: Via:	eMail	Phone Fax	In Person	
Regarding:	A contract of the second secon	نگ داشت. احاد الشفاسات باید این	the distance of the design of	
Client Instructions:	or work and only obtained to consider	man a constitution and a second constitution of	and National Conference of the	
17. Additional remarks:				
18. <u>Cooler Information</u>				
Cooler No Temp °C Condition Seal Intact Seal No	Seal Date	Signed By		
1 1.3 Good Yes				

Jiiaiii-	OT-CL	istoay F	Record	Turn-Around	rime:				١,	4		E N	43/1	rb/	> N ()	M E F	ITA	
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Time	Matrix	Sample	Request ID	Container Type and #	· /	≓HEAL No.	¥ iti I	+ à	TPH (Metho	EDB (Metho	PAH's (8310	RCRA 8 Mei	Anions (F,Cl	8081 Pestici	8270 (Semi-	300.0		Air Bubbles (Y or N)
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			noskal @ Soudrnille.00	Project Mana	ger			<u>S</u>	ଚ ା				-						
	Package:	struen	☐ Level 4 (Full Validation)		re Mos	skal	\$-(8021)	TPH (Gas only)	DRO MINE		SIMS)		PO4,SO	2 PCB's		-	ST JOS		
₹ccredi	tation			Sampler:), Sprag	ve-	雕	H	II	-			Q	308		<u> </u>	<u> </u>		
□ NEL	AP	☐ Othe	er	Sampler: On Ice:	Yes(□ Nö*] ₩	+ 1	(요)	418.1)			03.6	8 / 8		্ব বি	G		Z
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Date	Time	Matrix	Sample Request ID	Type and #	Preservative Type	HEAL No.	BTEX)+ WFEE FAMES-(8021)	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	PAH's (8310 or	RCRA 8 Metals	Anions-(F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄).	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	300.0		Air Bubbles (Y or N)
-18	1419	50:1	5c-26 E wall 5	1 40Z Keou Kit	MOU	-013	X		M							0	XI.		
1	1422		SC-27 E well 52			-014	X		$ \lambda $							(X.		
	1425		Sc-28 NW wall			-015	X		X								XI		
<u> </u>	1928		50-29 NW wall 2			-016	X		K							,	K		
μ <u>, </u>	1431		SC-30 NW wall 3			-017	X		X	\bot							4		
4	1434		5C-31 5W wall			018	K		X								KL		
1/_	1437		SC-32 Ses wall 2			-019	X		K			<u> </u>	; i			0	Z		
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Date:	1900	Relinquish Relinquish	- 25/	Received by:	tipele	Date Time 3/18/15 1950 Date Time	L.	narks	5: I	iouni 400	ce	Ε	n\	2 br	:5°C	J. W	 !	<u> </u>	
3 18/18	2005	M	With Walls mitted to Hall Environmental may be subc	10	Mh. J	h 03/19					+1							eport.	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 25, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401 TEL: (505) 325-5667

FAX

RE: Lateral C-7

OrderNo.: 1503850

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/19/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-34 250-300' W Bar ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:43:00 PM

Lab ID: 1503850-001

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	IGE ORGANICS				Analys	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/20/2015 8:27:48 AM	18222
Surr: DNOP	115	63.5-128	%REC	1	3/20/2015 8:27:48 AM	18222
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.048	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Toluene	ND	0.048	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Ethylbenzene	ND	0.048	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Xylenes, Total	ND	0.097	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Surr: 1,2-Dichloroethane-d4	97.6	70-130	%REC	1	3/20/2015 1:34:51 AM	R24920
Surr: 4-Bromofluorobenzene	95.3	70-130	%REC	1	3/20/2015 1:34:51 AM	R24920
Surr: Dibromofluoromethane	103	70-130	%REC	1	3/20/2015 1:34:51 AM	R24920
Surr: Toluene-d8	91.9	70-130	%REC	1	3/20/2015 1:34:51 AM	R24920
EPA METHOD 8015D MOD: GASOI	LINE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	· ND	4.8	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Surr: BFB	104	67.4-150	%REC	1	3/20/2015 1:34:51 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-35 200-250" W Bar ditch

Callection Date: 2/

Collection Date: 3/18/2015 2:46:00 PM

Project: Lateral C-7 **Lab ID:** 1503850-002

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	14	9.8	mg/Kg	1	3/20/2015 9:32:22 AM	18222
Surr: DNOP	118	63.5-128	%REC	1	3/20/2015 9:32:22 AM	18222
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	100	30	mg/Kg	20	3/19/2015 5:59:26 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	cadg
Benzene	ND	0.045	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Toluene	ND	0.045	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Ethylbenzene	ND	0.045	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Xylenes, Total	ND	0.089	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Surr: 1,2-Dichloroethane-d4	98.4	70-130	%REC	1	3/20/2015 2:03:39 AM	R24920
Surr: 4-Bromofluorobenzene	96.2	70-130	%REC	1	3/20/2015 2:03:39 AM	R24920
Surr: Dibromofluoromethane	102	70-130	%REC	1	3/20/2015 2:03:39 AM	R24920
Surr: Toluene-d8	92.9	70-130	%REC	1	3/20/2015 2:03:39 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	cadg
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Surr: BFB	114	67.4-150	%REC	1	3/20/2015 2:03:39 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-36 150-200' W Bar Ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:49:00 PM

Lab ID: 1503850-003

Matrix: SOIL Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/20/2015 9:53:49 AM	18222
Surr: DNOP	107	63.5-128	%REC	1	3/20/2015 9:53:49 AM	18222
EPA METHOD 8260B: VOLATILES S	SHORT LIST				Analyst	cadg
Benzene	ND	0.058	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Toluene	ND	0.058	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Ethylbenzene	ND	0.058	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Xylenes, Total	ND	0.12	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Surr: 1,2-Dichloroethane-d4	96.3	70-130	%REC	1	3/20/2015 2:32:28 AM	R24920
Surr: 4-Bromofluorobenzene	96.0	70-130	%REC	1	3/20/2015 2:32:28 AM	R24920
Surr: Dibromofluoromethane	100	70-130	%REC	1	3/20/2015 2:32:28 AM	R24920
Surr: Toluene-d8	89.2	70-130	%REC	1	3/20/2015 2:32:28 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	cadg
Gasoline Range Organics (GRO)	ND	5.8	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Surr: BFB	101	67.4-150	%REC	1	3/20/2015 2:32:28 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-37 100-150' W Bar Ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:52:00 PM

Lab ID: 1503850-004

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME			
Diesel Range Organics (DRO)	11	10	mg/Kg	1	3/20/2015 12:23:20 PM	18222			
Surr: DNOP	106	63.5-128	%REC	1	3/20/2015 12:23:20 PM	18222			
EPA METHOD 300.0: ANIONS					Analyst	: LGT			
Chloride	33	30	mg/Kg	20	3/19/2015 6:11:51 PM	18230			
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	cadg			
Benzene	ND	0.039	· mg/Kg	1	3/20/2015 3:01:16 AM	R24920			
Toluene	ND	0.039	mg/Kg	1	3/20/2015 3:01:16 AM	R24920			
Ethylbenzene	ND	0.039	mg/Kg	1	3/20/2015 3:01:16 AM	R24920			
Xylenes, Total	ND	0.079	mg/Kg	1	3/20/2015 3:01:16 AM	R24920			
Surr: 1,2-Dichloroethane-d4	102	70-130	%REC	1	3/20/2015 3:01:16 AM	R24920			
Surr: 4-Bromofluorobenzene	95.9	70-130	%REC	1	3/20/2015 3:01:16 AM	R24920			
Surr: Dibromofluoromethane	106	70-130	%REC	. 1	3/20/2015 3:01:16 AM	R24920			
Surr: Toluene-d8	92.2	70-130	%REC	1	3/20/2015 3:01:16 AM	R24920			
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: cadg			
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	3/20/2015 3:01:16 AM	R24920			
Surr: BFB	106	67.4-150	%REC	1	3/20/2015 3:01:16 AM	R24920			

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 4 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-38 50-100' W Bar Ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:55:00 PM

Lab ID: 1503850-005

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	IGE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	41	9.8	mg/Kg	1	3/20/2015 9:22:36 AM	18222
Surr: DNOP	114	63.5-128	%REC	1	3/20/2015 9:22:36 AM	18222
EPA METHOD 8260B: VOLATILES			Analyst	cadg		
Benzene	ND	0.043	mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Toluene	0.047	0.043	mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Ethylbenzene	ND	0.043	mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Xylenes, Total	ND	0.086	· mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Surr: 1,2-Dichloroethane-d4	95.4	70-130	%REC	1	3/20/2015 3:30:05 AM	R24920
Surr: 4-Bromofluorobenzene	98.7	70-130	%REC	1	3/20/2015 3:30:05 AM	R24920
Surr: Dibromofluoromethane	99.1	70-130	%REC	1	3/20/2015 3:30:05 AM	R24920
Surr: Toluene-d8	89.0	70-130	%REC	1	3/20/2015 3:30:05 AM	R24920
EPA METHOD 8015D MOD: GASOI	LINE RANGE				Analyst	: cadg
Gasoline Range Organics (GRO)	11	4.3	mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Surr: BFB	109	67.4-150	%REC	1	3/20/2015 3:30:05 AM	R24920

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 5 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/25/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-39 0-50' W Bar Ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:58:00 PM

Lab ID: 1503850-006

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qual Units		DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/20/2015 9:49:48 AM	18222
Surr: DNOP	116	63.5-128	%REC	1	3/20/2015 9:49:48 AM	18222
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 6:24:15 PM	18230
EPA METHOD 8260B: VOLATILES			Analyst	cadg		
Benzene	ND	0.037	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Toluene	ND	0.037	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Ethylbenzene	ND	0.037	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Xylenes, Total	ND	0.074	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Surr: 1,2-Dichloroethane-d4	102	70-130	%REC	1	3/20/2015 3:58:53 AM	R24920
Surr: 4-Bromofluorobenzene	98.8	70-130	%REC	1	3/20/2015 3:58:53 AM	R24920
Surr: Dibromofluoromethane	104	70-130	%REC	1	3/20/2015 3:58:53 AM	R24920
Surr: Toluene-d8	91.1	70-130	%REC	1	3/20/2015 3:58:53 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	cadg
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Surr: BFB	108	67.4-150	%REC	1	3/20/2015 3:58:53 AM	R24920

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- 'J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 6 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-40 Background

Lateral C-7 **Project:**

Collection Date: 3/18/2015 3:01:00 PM

Lab ID: 1503850-007

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/20/2015 10:16:54 AM	18222
Surr: DNOP	114	63.5-128	%REC	1	3/20/2015 10:16:54 AM	18222
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/24/2015 10:51:49 AM	18295
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	cadg
Benzene	ND	0.046	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Toluene	ND	0.046	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Ethylbenzene	ND	0.046	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Xylenes, Total	ND	0.091	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Surr: 1,2-Dichloroethane-d4	98.0	70-130	%REC	1	3/20/2015 4:27:37 AM	R24920
Surr: 4-Bromofluorobenzene	104	70-130	%REC	1	3/20/2015 4:27:37 AM	R24920
Surr: Dibromofluoromethane	101	70-130	%REC	1	3/20/2015 4:27:37 AM	R24920
Surr: Toluene-d8	88.0	70-130	%REC	1	3/20/2015 4:27:37 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: cadg
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Surr: BFB	110	67.4-150	%REC	1	3/20/2015 4:27:37 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- RSD is greater than RSDlimit O
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit

Page 7 of 12

- Sample pH Not In Range P
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503850

25-Mar-15

Client:

Souder, Miller and Associates

Project

Lateral C-7

Project: Latera	C-7				
Sample ID MB-18230	SampType: MBLK	TestCode: EPA Method	300.0: Anions		=
Client ID: PBS	Batch ID: 18230	RunNo: 24944			
Prep Date: 3/19/2015	Analysis Date: 3/19/2015	SeqNo: 735257	Units: mg/Kg		
Analyte Chloride	Result PQL SPK value ND 1.5	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Sample ID LCS-18230	SampType: LCS	TestCode: EPA Method	300.0: Anions		=
Client ID: LCSS	Batch ID: 18230	RunNo: 24944			
Prep Date: 3/19/2015	Analysis Date: 3/19/2015	SeqNo: 735258	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Chloride	14 1.5 15.00	0 92.5 90	110		
Sample ID MB-18295	SampType: MBLK	TestCode: EPA Method	300.0: Anions		
Client ID: PBS	Batch ID: 18295	RunNo: 25049			
Prep Date: 3/24/2015	Analysis Date: 3/24/2015	SeqNo: 739028	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Chloride	ND 1.5				
Sample ID LCS-18295	SampType: LCS	TestCode: EPA Method 300.0: Anions			
Cliant ID: LCCC	Potob ID: 49305	Punho: 25040			

Cample is Loo-Toros	campiype. Loo	robiocac. Er A micaioa	COU.U. ALIIONS	
Client ID: LCSS	Batch ID: 18295	RunNo: 25049		
Prep Date: 3/24/2015	Analysis Date: 3/24/2015	SeqNo: 739029	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	14 1.5 15.00	0 95.9 90	110	•

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 8 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503850

25-Mar-15

Client:

Souder, Miller and Associates

Project: Lateral	C-7			
Sample ID MB-18222	SampType: MBLK	TestCode: EPA Method	8015D: Diesel Range Organics	
Client ID: PBS	Batch ID: 18222	RunNo: 24912		
Prep Date: 3/19/2015	Analysis Date: 3/19/2015	SeqNo: 734184	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit (Qual
Diesel Range Organics (DRO)	N D 10			
Surr: DNOP	11 10.00	110 63.5	128	
Sample ID LCS-18222	SampType: LCS	TestCode: EPA Method	8015D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 18222	RunNo: 24912		
Prep Date: 3/19/2015	Analysis Date: 3/19/2015	SeqNo: 734185	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit (Qual
Diesel Range Organics (DRO)	53 .10 50.00	0 107 67.8	130	
Surr: DNOP	4.9 5.000	98.5 63.5	128	
Sample ID MB-18200	SampType: MBLK	TestCode: EPA Method	8015D: Diesel Range Organics	
Client ID: PBS	Batch ID: 18200	RunNo: 24912		
Prep Date: 3/18/2015	Analysis Date: 3/19/2015	SeqNo: 734189	Units: %REC	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit (Qual
Surr: DNOP	11 10.00	108 63.5	128	
Sample ID LCS-18200	SampType: LCS	TestCode: EPA Method	8015D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 18200	RunNo: 24912		
Prep Date: 3/18/2015	Analysis Date: 3/19/2015	SeqNo: 734192	Units: %REC	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit (Qual
Surr: DNOP	4.9 5.000	98.9 63.5	128	
Sample ID MB-18201	SampType: MBLK	TestCode: EPA Method	8015D: Diesel Range Organics	
Client ID: PBS	Batch ID: 18201	RunNo: 24912		
Prep Date: 3/18/2015	Analysis Date: 3/19/2015	SeqNo: 734292	Units: %REC	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit (Qual
Surr: DNOP	12 10.00	124 63.5	128	
Sample ID LCS-18201	SampType: LCS	TestCode: EPA Method	8015D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 18201	RunNo: 24912		
Prep Date: 3/18/2015	Analysis Date: 3/19/2015	SeqNo: 734682	Units: %REC	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit (Qual
Surr: DNOP	5.0 5.000	99.7 63.5	128	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range E
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Sample pH Not In Range
- Reporting Detection Limit RL

Page 9 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503850 25-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 1503850-001AMS SampType: MS TestCode: EPA Method 8015D: Diesel Range Organics Client ID: SC-34 250-300' W B Batch ID: 18222 RunNo: 24910 Prep Date: 3/19/2015 Analysis Date: 3/20/2015 SeqNo: 735108 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 50 Diesel Range Organics (DRO) 10 50.25 6.442 86.3 29.2 176 Surr: DNOP 5.3 5.025 63.5 128 106

Sample ID 1503850-001AMSD SampType: MSD TestCode: EPA Method 8015D: Diesel Range Organics Client ID: SC-34 250-300' W B Batch ID: 18222 RunNo: 24910 Prep Date: 3/19/2015 Analysis Date: 3/20/2015 SeqNo: 735109 Units: mg/Kg Result **PQL** SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte Diesel Range Organics (DRO) 45 9.9 49.70 6.442 78.2 29.2 176 9.42 23 Surr: DNOP 5.4 4.970 108 63.5 128 0 0

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Not beleeted at the Reporting En

Page 10 of 12

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503850

25-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 5mL rb	•				8260B: Volatiles Short List					
				RunNo: 24920		11.9	_			
Prep Date:	Analysis D)ate: 3/	19/2015	SeqNo: 734835			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10			•					
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.2	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID 100ng Ics	Samp ⁻	Type: LC	S	TestCode: EPA Method 8260B: Volatiles Short List					List		
Client ID: LCSS	Batc	h ID: R2	4920	F	RunNo: 2	4920					
Prep Date:	Analysis [Date: 3/	19/2015	SeqNo: 734836			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.050	1.000	0	107	70	130				
Toluene	1.1	0.050	1.000	0	109	70	130				
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.6	70	130	•			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130				
Surr: Dibromofluoromethane	0.49		0.5000		98.0	70	130				
Surr: Toluene-d8	0.51		0.5000		102	70	130				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: 15

1503850 25-Mar-15

Client:

Souder, Miller and Associates

500

Project:

Surr: BFB

Lateral C-7

Sample ID 5mL rb	SampType: M	BLK	Tes	Code: EF	de: EPA Method 8015D Mod: Gasoline Range					
Client ID: PBS	Batch ID: R	24920	RunNo: 24920							
Prep Date:	Analysis Date: 3	/19/2015	S	eqNo: 73	34871	Units: mg/k	(g			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND 5.0									
Surr: BFB	490	500.0		97.6	67.4	150				
Sample ID 2.5ug gro Ics	SampType: Lo	cs	Tes	tCode: EF	A Method	8015D Mod:	Gasoline			
Client ID: LCSS	Batch ID: R	24920	F	RunNo: 2 4	1920					
Prep Date:	Analysis Date: 3	/19/2015	S	SeqNo: 73	34872	Units: mg/F	(g			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	25 5.0	25.00	0	100	79.9	135				

99.7

67.4

150

500.0

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM Work Order Num	nber: 1503850		RcptNo:	1
Received by/date: A U3/19/15				
Logged By: Anne Thorne 3/19/2015 8:05:00	AM	anne Sham	_	
Completed By: Anne Thorne 3/19/2015		ane Il-		ľ
Reviewed By:		··· ·· ·· ·· ··		
Chain of Custody	<u>.</u>		,	
1. Custody seals intact on sample bottles?	Yes 🗌	No 🗌	Not Present ✓	•
2. Is Chain of Custody complete?	Yes 🗹	No 🗌	Not Present	
3. How was the sample delivered?	Courier			
<u>Log In</u>				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗌	. NA	
5. Were all samples received at a temperature of >0° C to 6.0°C.	Yes 🗹	No 🗌	na 🗆	
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗌		
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗆		
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗌		
9. Was preservative added to bottles?	Yes 🗌	No 🗹	na 🗆	
10.VOA vials have zero headspace?	Yes 🗌	No 🗆	No VOA Vials 🗹	
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved	
10 -			bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🔲	for pH: (<2 o	r >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗹	No 🗆		
15. Were all holding times able to be met?	Yes 🗹	No 🗌	Checked by:	
(If no, notify customer for authorization.)		,		
Special Handling (if applicable)				
16. Was client notified of all discrepancies with this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified: Da	to.			
By Whom:	\$	Phone Fax	In Person	
Regarding:				
Client Instructions:	and the state of t	er allemania e de la compania de la compania de la compania de la compania de la compania de la compania de la	A second of the second of the second of the second	
17. Additional remarks:	and the second s	1	The second second second second	_1
18. Cooler Information				
Cooler Mo Temp C Condition Seal Intact Seal No	Seal Date	Signed By		
1 1.0 Good Yes				

Chain-of-Custody Record				Turn-Around Time:							. 6 8	_	min.	/TE	20	D.I.F	ia E	NT	'A I	
lient:	5M	Α		□ Standard Next Day				-20												v
	<u></u>	7 1		Project Name:				ANALYSIS LABORATORY www.hallenvironmental.com												
lailing Address: 1 1 7 1				100 Lateral C-7			4901 Hawkins NE - Albuquerque, NM 87109													
Tailing Address: 401 w Broadway				Project #:			1.						•	-		-410				
tornington, NM 87401				Project #: N 20609				lei	. 505	-345-					ues			· · · · · · ·		- 1
mail or Fax#: Steven. Mostula and rille								\$	<i>a</i> .	7-										M X
		Drewe	n. Mostula or cox	1		•	21)	o	/ # R@/			ļ	os	3,s			3			
				Steve Moskal			(8021)	(Gas only)	20		SIMS)		PO ₄ ,	2 PCE			Joins			
				Sampler: JS				표	\cap	= =			02	88					-	9
□ NELAP □ Other				On Ice: No.				+	8	8 6	r 82	ر س	0,5	8/8		<u>₹</u>	17	.		ō
] EDI	(Type)_			Sample Tem	perature	1.0		MTBE	9/	g g	00	etal	N.	cide	₹	Ϋ́				\ <u>\</u>
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALNON	BIEX #	<u> </u>	TPH 8015B/GRO	IPH (Method 418.1) EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (E,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	300.0	1		Air Bubbles (Y or N)
-18	1443	Soil	120-34 250-300 W Bar dital	1 402		-01	X		×											
1	1446	}	5c-35 w Ras difely		}	-02	X		$\sqrt{ }$								X			
	1449		5c-36 (2) Bar ditch			-03	\mathcal{N}		Λ				-							
1	1452		SC-37 west Bor Dito			-04	d		N								X			\top
T^{-}	1455		SC-38 west Bar dife			-05	N		N											
T	1458	V/	5c-39 west Bur dild		1/	-od	1		X			1					X			
\mathbb{Z}	1501	V	SC-40 Background		V	-007	à		χ							130/	X			
													:							
Date:	Time:	Relinquish	ed by:	Received by: Date Time				Remarks: Invoice Entraprise												
> 1B	1100	9	N	/ Musto	Walle	3/18/15 /900	Plea	بعد	a	C19										.
Date:	Time: 2005	Relinguish	1-1.X	Received by:		Date Time 123/19/15	ا کر	55C.	1qC	ague	<u>e</u> 5	bood	lem	نہ الان	r . ca	<u>~</u>				
8/12		samples sub	mitted to Half Environmental may be subc	ontracted to other a	ccredited laboratori	es. This serves as notice of this	s possit	——— pil i ty. A	ny sub-	contract	ed data	will b	e clear	ly nota	ited on	the a	nalytic	al report	t.	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1503B68

March 31, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401

TEL: (505) 325-5667 FAX (505) 327-1496

RE: Lateral C-7

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/25/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503B68

Date Reported: 3/31/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1 @ 1'

Project: Lateral C-7

Collection Date: 3/24/2015 9:30:00 AM

Lab ID: 1503B68-001

Received Date: 3/25/2015 7:55:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/27/2015 3:56:33 PM	18351
Surr: DNOP	105	63.5-128	%REC	1	3/27/2015 3:56:33 PM	18351
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/28/2015 11:09:23 AM	A 18355
Surr: BFB	89.9	80-120	%REC	1	3/28/2015 11:09:23 AM	<i>I</i> 18355
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.049	mg/Kg	1	3/28/2015 11:09:23 AM	A 18355
Toluene	ND	0.049	mg/Kg	1	3/28/2015 11:09:23 AM	A 18355
Ethylbenzene	ND	0.049	mg/Kg	1	3/28/2015 11:09:23 AM	A 18355
Xylenes, Total	ND	0.097	mg/Kg	1	3/28/2015 11:09:23 AM	A 18355
Surr: 4-Bromofluorobenzene	100	80-120	%REC	1	3/28/2015 11:09:23 AM	A 18355
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	39	30	mg/Kg	20	3/30/2015 3:05:50 PM	18413

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503B68

31-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18413

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 18413

RunNo: 25153

Prep Date:

3/30/2015

Analysis Date: 3/30/2015

SeqNo: 744362

Units: mg/Kg

HighLimit

RPDLimit

Qual

Analyte Chloride

Result PQL ND

Sample ID LCS-18413

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Batch ID: 18413

1.5

RunNo: 25153

Prep Date: 3/30/2015

Analysis Date: 3/30/2015

SeqNo: 744363

Units: mg/Kg

HighLimit

%RPD

Qual

Analyte

Result PQL

SPK value SPK Ref Val

%REC 95.9

90

RPDLimit

1.5

LowLimit

%RPD

Chloride

14

15.00

0

SPK value SPK Ref Val %REC LowLimit

110

Qualifiers:

S

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range E
- Analyte detected below quantitation limits

Spike Recovery outside accepted recovery limits

- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range Reporting Detection Limit

Page 2 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503B68

31-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18351	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Dies	el Range (Organics	
Client ID: PB\$	Batch	1D: 18	351	F	RunNo: 2	5073				
Prep Date: 3/26/2015	Analysis D	ate: 3/	27/2015	S	SeqNo: 7	42950	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.7		10.00		97.5	63.5	128			

Sample ID LCS-18351	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Diese	el Range (Organics	
Client ID: LCSS	Batch	1D: 18	351	F	RunNo: 2	5073				
Prep Date: 3/26/2015	Analysis D	ate: 3/	27/2015	S	SeqNo: 7	42951	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.2	67.8	130			
Surr: DNOP	4.9		5.000		97.7	63.5	128			

Sample ID	1503B68-001AMS	SampTy	pe: MS	3	Tes	tCode: El	PA Method	8015D: Dies	el Range C	Organics	
Client ID:	SC-1 @ 1'	Batch	ID: 18 :	351	F	RunNo: 2	5073				
Prep Date:	3/26/2015	Analysis Da	ate: 3/	27/2015	S	SeqNo: 7	42952	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	52	10	49.85	0	105	29.2	176			
Surr: DNOP		5.2		4.985		103	63.5	128			

Sample ID 1503B68-001AMS	D SampT	ype: MS	SD	Tes	tCode: El	PA Method	8015D: Diese	el Range (Organics	
Client ID: SC-1 @ 1'	Batch	rID: 18	351	F	RunNo: 2	5073				
Prep Date: 3/26/2015	Analysis D	ate: 3/	27/2015	S	SeqNo: 7	42953	Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.20	0	99.9	29.2	176	4.54	23	
Surr: DNOP	5.2		5.020		104	63.5	128	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH Not In Range

RL Reporting Detection Limit

Page 3 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503B68

31-Mar-15

Client:

Souder, Miller and Associates

Result

24

990

PQL

5.0

Project:

Analyte

Surr: BFB

Gasoline Range Organics (GRO)

Lateral C-7

Sample ID MB-18355 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: **PBS** Batch ID: 18355 RunNo: 25124 Analysis Date: 3/27/2015 Prep Date: 3/26/2015 SeqNo: 742102 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 910 1000 91.2 80 120 Sample ID LCS-18355 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 18355 RunNo: 25124 Prep Date: 3/26/2015 Analysis Date: 3/27/2015 SeqNo: 742103 Units: mg/Kg

%REC

97.5

99.2

LowLimit

64

80

HighLimit

130

120

%RPD

RPDLimit

Qual

SPK value SPK Ref Val

25.00

1000

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 4 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503B68

31-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18355	SampT	ype: ME	BLK	Tes	lCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	1D: 18	355	F	RunNo: 2	5124				
Prep Date: 3/26/2015	Analysis D)ate: 3/	27/2015	8	SeqNo: 7	42123	Units: mg/K	ίg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
(ylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID LCS-18355	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles			
Client ID: LCSS	Batch	n ID: 18	355	F	RunNo: 2	5124					
Prep Date: 3/26/2015	Analysis [)ate: 3/	27/2015	9	SeqNo: 7	42124	Units: mg/k	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.050	1.000	0	110	76.6	128				
Toluene	1.1	0.050	1.000	0	106	75	124				
Ethylbenzene	1.0	0.050	1.000	0	104	79.5	126				
Xylenes, Total	3.1	0.10	3.000	0	103	78.8	124				
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120				

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 5 of 5

- P Sample pH Not In Range
- RLReporting Detection Limit



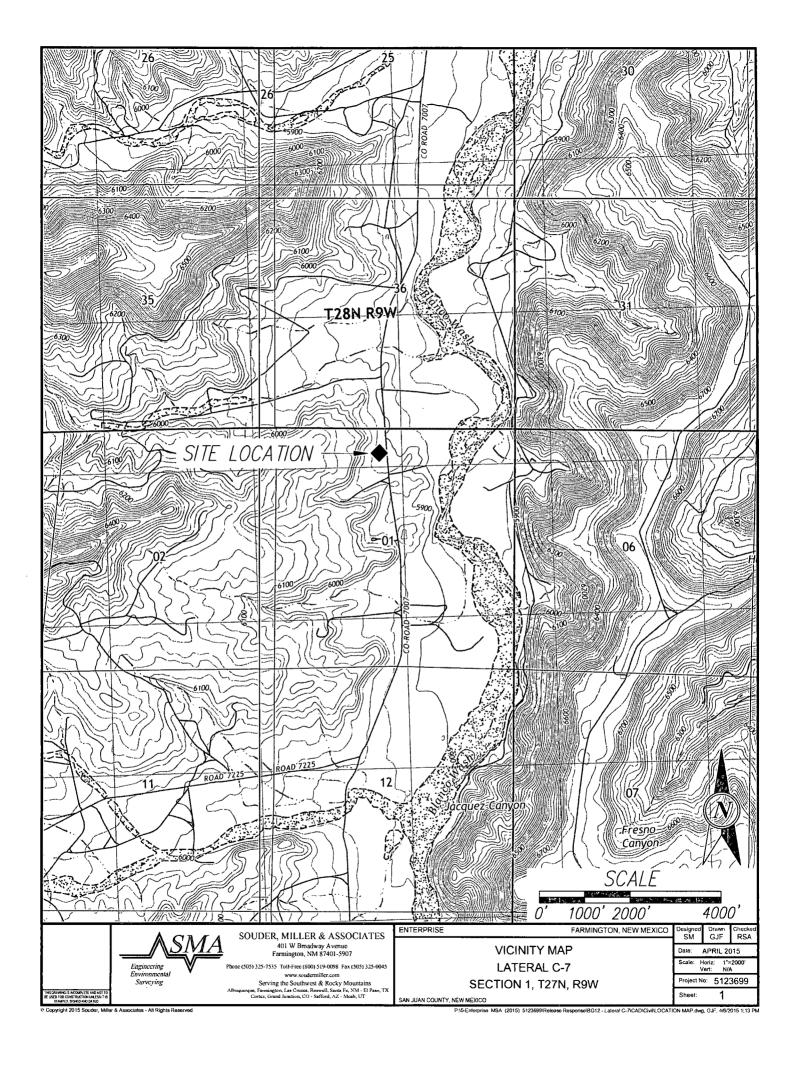
Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

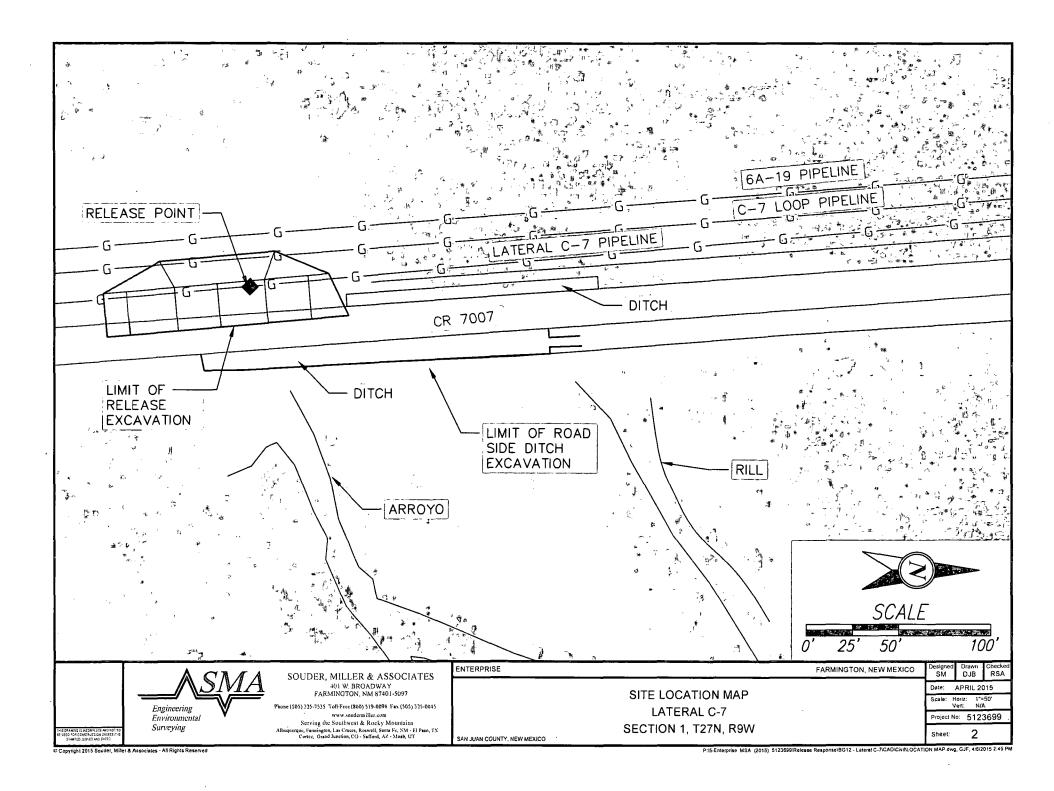
TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

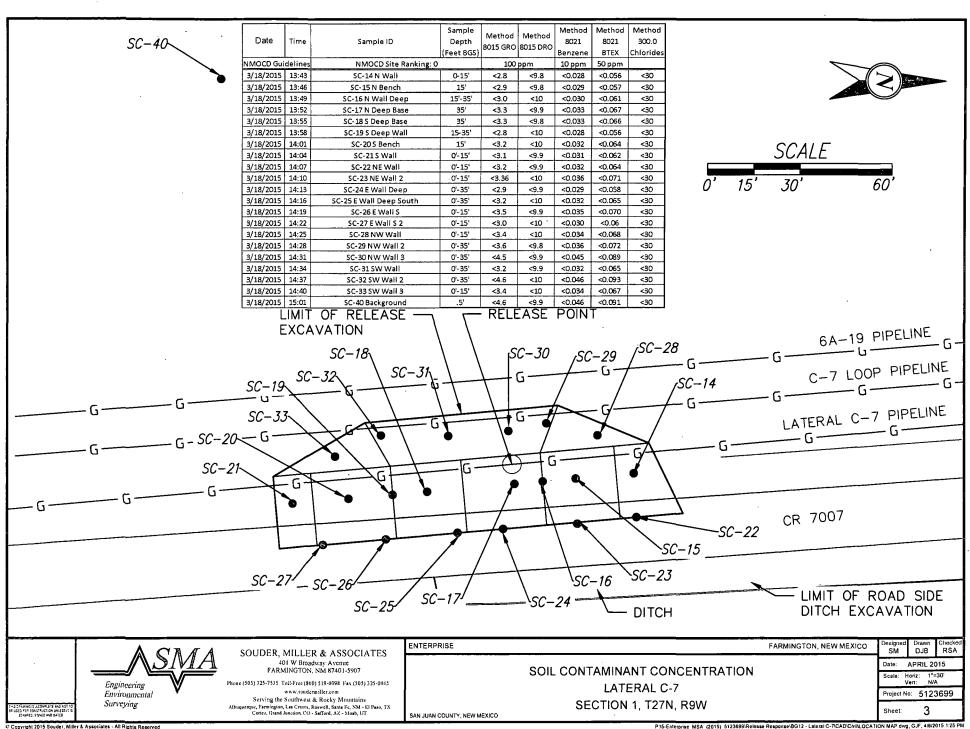
Sample Log-In Check List

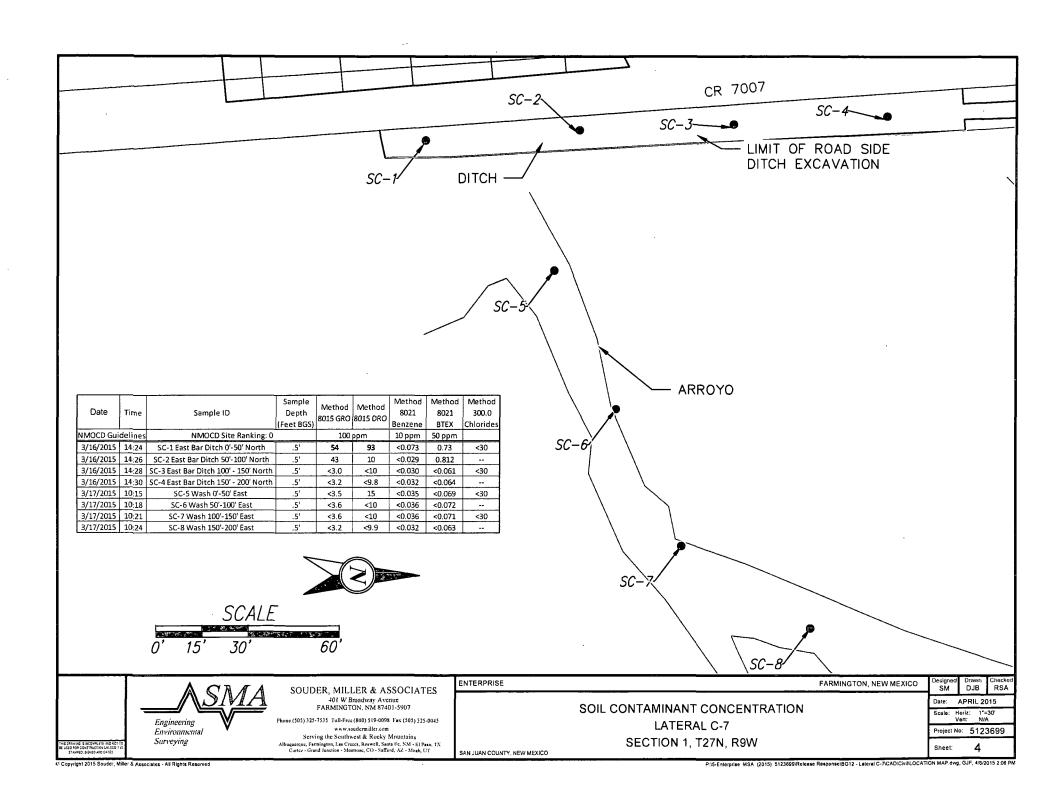
Client Name:	SMA-FARM	V	ork Order Number	: 1503B	68			Rcp	otNo: 1	
Received by/date	e: 4-1	n - 03)	25/15							
Logged By:	Ashley Galle	gos 3/25	5/2015 7:55:00 AM			A				
Completed By:	Ashley Galle	gos 3/25	5/2015 5:58:39 PM			AZ				
Reviewed By:	2	<i>"</i> "	3/24/15			V				
Chain of Cust	tody J	· · · · · · · · · · · · · · · · · · ·	7 ~ 4/1/							
1. Custody sea		nple bottles?		Yes		No		Not Present		
2. Is Chain of C				Yes		No		Not Present		
3. How was the	sample delive	red?		Couri	er					
Log In										
4. Was an atte	mpt made to c	ool the samples?		Yes	@	No		NA	A []	
5. Were all sam	nples received	at a temperature of	>0° C to 6.0°C	Yes		No		NA		
6. Sample(s) in	n proper contai	ner(s)?		Yes		No				
7. Sufficient sa	mple volume fo	or indicated test(s)?		Yes		No				
8. Are samples	(except VOA	and ONG) properly pr	eserved?	Yes		No				
9. Was preserv	ative added to	bottles?		Yes		No		NA		
10.VOA vials ha	ave zero heads	pace?		Yes		No		No VOA Vials	: 	
		rs received broken?		Yes		No				
					-			# of preserved bottles check		
12. Does paperv (Note discret	vork match bot pancies on cha			Yes	€ i	No		for pH:	(<2 or	>12 unless noted)
		tified on Chain of Cus	tody?	Yes		No		Adjuste	ed?	·
14, Is it clear wh	at analyses we	ere requested?		Yes		No				
15. Were all hold (If no, notify	ding times able customer for a			Yes		` No		Checked	d by:	
Special Hand	lling (if app	licable)								
16. Was client n	otified of all dis	crepancies with this	order?	Yes		No		NA	A 🔛	
Persor	n Notified:	maja naban nanyandhiri sebada nabi nebada nabi nebada nabi da haka nabi da haka nabi nabi nabi nabi nabi nabi n	Date	at a trade-order de adq	المسترون المسترون والمسترور والم	شحمان سرائلائها الماس فهلست				
By Wh	nom:	الدراقة والمراوية Via:	eMa	ail [] F	hone [Fax	[] In Person		í	
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Client	Instructions:									
17. Additional re	emarks:									
18. Cooler Info Cooler No		Condition Seal I	ntact Seal No	Seal D	ate	Signed	Ву			

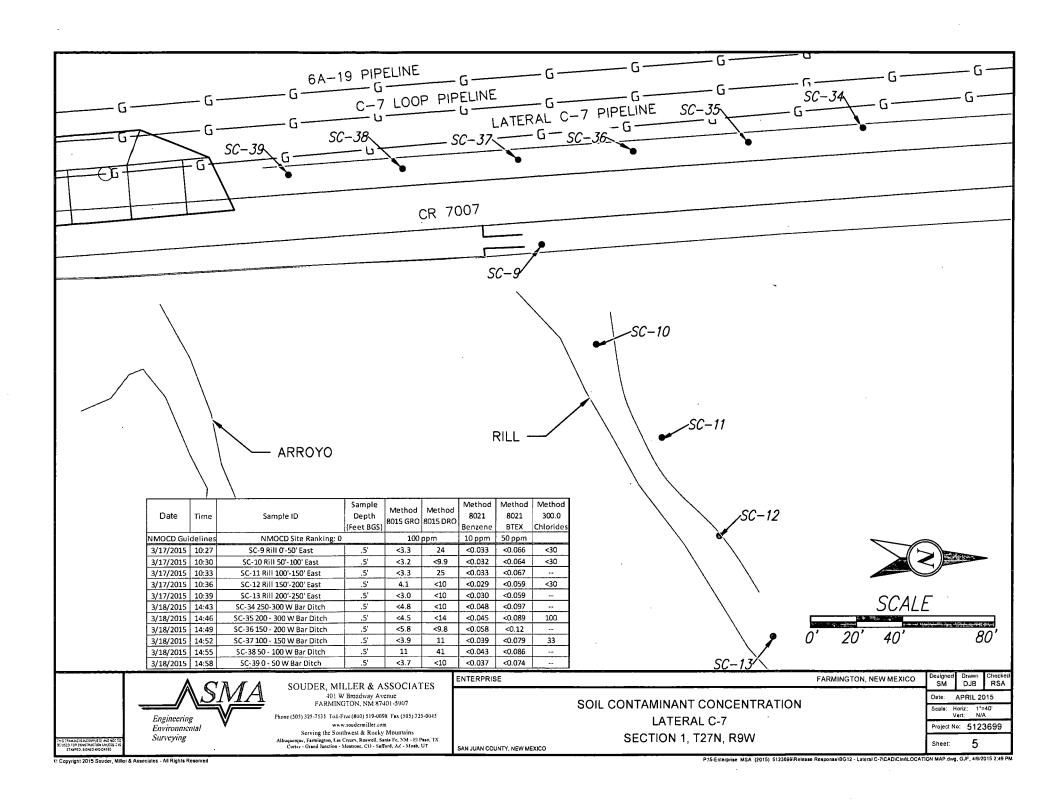
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Client:	<u> </u>	MA			Standard	□ Rush	l														NTA TO		,
	<u>_</u>	(43)		 	Project Name				┤ ┕											K A	. 1 0	r i	
Mailing	Address	: /201	<u>~</u>		ورسل ا	1 0-	7											tal.co					
		7016	s. Brader	met	Project #:		<u>/</u>	<u> </u>	-			awki				•							
			NM 8		1 10,000 %.	1 C-	09			Te	el. 50	5-34				_		345-		7			
Phone			325 75			N 1060	1				Ŧ			Α			Req	ues					
	Package:		•	Soudanilles. Ler Full Validation)	Project Mana	iger: vc Mo	ska	l	5 (8021)	Gas only	STATE OF			IMS)		PO₄,SO₄	PCB's			Sypi			
Accred				.,,	Sampler:					H H	問		=	20 S		0,2	082	Ė		-9			
□ NEL	AP	□ Othe	r	· · · · · · · · · · · · · · · · · · ·	On Ice:	Yes	□ No			+	8	18.	90	82		ő	s / 8		<u> </u>	3			10
	(Type)				Sample Tem	perature: [, 7			TBE	Ã	90	bo	0	etak	Ž	cide	Æ	N-I				2
Date	Time	Matrix	Sample	Request ID	Container Type and #	Preservative Type	HEA	AL NO. 33US	BTEX+ MISE TIMES	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / IMRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Ci,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082 PCB	8260B (VOA)	8270 (Semi-VOA)	300,0			Air Bubbles (Y or N)
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Date: 3/24/15	Time:	Refinquish	tulit	COLLS	Received by:	X of	Date 325/15	7755	716	الم وسد		عم محد .							mil	ح. (۵	om	112	











Tables

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Field verification that	Groundwater is assumed
50' to 99' = 10		release is located within an unnamed wash.	to be less than 50 feet below ground surface.
>100' = 0			.
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes .
< 200' = 20	20	Field verification that	Release is located within
200'-1000' = 10		release is located within an unnamed wash.	an unnamed tributary wash of Blanco Wash.
>1000' = 0			
Ranking Criteria for Horizontal Distance to a Water Well or	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
Water Source			
<1000' from a water source? <200' for a private domestic	0		No recorded water wells
water source? YES OR NO to	U	NM State Engineer Water	
BOTH. YES = 20, NO = 0		Well Database	wells located within a 1
BOTH: 123 - 20, NO - 0		well Database	mile radius.
Total Site Ranking	40		
Total one naming			
Soil Remedation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
ТРН	5000 PPM	1000 PPM	100 PPM



Enterprise Products Table 3: Summary of Laboratory Analysis Results in mg/Kg

Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX	Method 300.0 Chlorides
NMOCD Gui	idelines	NMOCD Site Ranking	g: 40	100	ppm	10 ppm	50 ppm	
3/16/2015	14:24	SC-1 East Bar Ditch 0'-50' North	.5'	54	93	<0.073	0.73	<30
3/24/2015	9:30	SC-1 East Bar Ditch 0'-50' North	1'	<4.9	<9.8	<0.049	<0.097	39
3/16/2015	14:26	SC-2 East Bar Ditch 50'-100' North	.5'	43	10	<0.029	0.812	
3/16/2015	14:28	SC-3 East Bar Ditch 100' - 150' North	.5'	<3.0	<10	<0.030	<0.061	<30
3/16/2015	14:30	SC-4 East Bar Ditch 150' - 200' North	.5'	<3.2	<9.8	<0.032	<0.064	,
3/17/2015	10:15	SC-5 Wash 0'-50' East	.5'	<3.5	15	<0.035	<0.069	<30
3/17/2015	10:18	SC-6 Wash 50'-100' East	.5'	<3.6	<10	<0.036	<0.072	
3/17/2015	10:21	SC-7 Wash 100'-150' East	.5'	<3.6	<10	<0.036	<0.071	<30
3/17/2015	10:24	SC-8 Wash 150'-200' East	.5'	<3.2	<9.9	<0.032	<0.063	
3/17/2015	10:27	SC-9 Rill 0'-50' East	.5'	<3.3	24	<0.033	<0.066	<30
3/17/2015	10:30	SC-10 Rill 50'-100' East	.5'	<3.2	<9.9	<0.032	<0.064	<30
3/17/2015	10:33	SC-11 Rill 100'-150' East	.5'	<3.3	25	<0.033	<0.067	
3/17/2015	10:36	SC-12 Rill 150'-200' East	.5'	4.1	<10	<0.029	<0.059	<30
3/17/2015	10:39	SC-13 Rill 200'-250' East	.5'	<3.0	<10	<0.030	<0.059	
3/18/2015	13:43	SC-14 N Wall	0-15'	<2.8	<9.8	<0.028	<0.056	<30
3/18/2015	13:46	SC-15 N Bench	15'	<2.9	<9.8	<0.029	<0.057	<30
3/18/2015	13:49	SC-16 N Wall Deep	15'-35'	<3.0	<10	<0.030	<0.061	<30
3/18/2015	13:52	SC-17 N Deep Base	35'	<3.3	<9.9	<0.033	<0.067	<30
3/18/2015	13:55	SC-18 S Deep Base	35'	<3.3	<9.8	<0.033	<0.066	<30
3/18/2015	13:58	SC-19 S Deep Wall	15-35'	<2.8	<10	<0.028	<0.056	<30
3/18/2015	14:01	SC-20 S Bench	15'	<3.2	<10	<0.032	<0.064	<30
3/18/2015	14:04	SC-21 S Wall	0'-15'	<3.1	<9.9	<0.031	<0.062	<30
3/18/2015	14:07	SC-22 NE Wall	0'-15'	<3.2	<9.9	<0.032	<0.064	<30
3/18/2015	14:10	SC-23 NE Wall 2	0'-15'	<3.36	<10	<0.036	<0.071	<30
3/18/2015	14:13	SC-24 E Wall Deep	0'-35'	. <2.9	<9.9	<0.029	<0.058	<30
3/18/2015	14:16	SC-25 E Wall Deep South	0'-35'	<3.2	<10	<0.032	<0.065	<30
3/18/2015	14:19	SC-26 E Wall S	0'-15'	<3.5	<9.9	<0.035	<0.070	<30
3/18/2015	14:22	SC-27 E Wall S 2	0'-15'	<3.0	<10	<0.030	<0.06	<30
3/18/2015	14:25	SC-28 NW Wall	0'-15'	<3.4	<10	<0.034	<0.068	<30
3/18/2015	14:28	SC-29 NW Wall 2	0'-35'	<3.6	<9.8	<0.036	<0.072	<30
3/18/2015	14:31	SC-30 NW Wall 3	0'-35'	<4.5	<9.9	<0.045	<0.089	<30
3/18/2015	14:34	SC-31 SW Wall	0'-35'	<3.2	<9.9	<0.032	<0.065	<30
3/18/2015	14:37	SC-32 SW Wall 2	0'-35'	<4.6	<10	<0.046	<0.093	<30
3/18/2015	14:40	SC-33 SW Wall 3	0'-15'	<3.4	<10	<0.034	<0.067	<30



Enterprise Products Table 3: Summary of Laboratory Analysis Results in mg/Kg

Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX	Method 300.0 Chlorides
NMOCD Gui	delines	NMOCD Site Ranking	g: 40	100	ppm	10 ppm	50 ppm	
3/18/2015	14:43	SC-34 250-300 W Bar Ditch	.5'	<4.8	<10	<0.048	<0.097	
3/18/2015	14:46	SC-35 200 - 300 W Bar Ditch	.5'	<4.5	<14	<0.045	<0.089	100
3/18/2015	14:49	SC-36 150 - 200 W Bar Ditch	.5'	<5.8	<9.8	<0.058	<0.12	
3/18/2015	14:52	SC-37 100 - 150 W Bar Ditch	.5'	<3.9	11	<0.039	<0.079	33
3/18/2015	14:55	SC-38 50 - 100 W Bar Ditch	.5'	. 11	41	<0.043	<0.086	
3/18/2015	14:58	SC-39 0 - 50 W Bar Ditch	.5'	<3.7	<10	<0.037	<0.074	
3/18/2015	15:01	SC-40 Background	.5'	<4.6	<9.9	<0.046	<0.091	<30



Appendix A Site Photography



Photo 1: The liquids released from the Lateral C-7 eroded a large hole above the release location. Pictured is the release after residual liquids where removed.

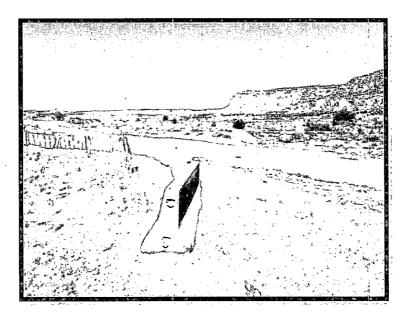


Photo 2: Surface impact from pipeline liquids as they traveled across ground surface in the vicinity if the release.

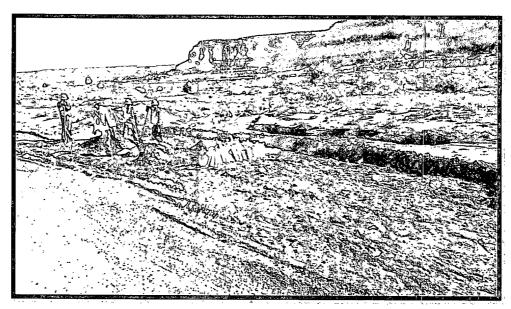


Photo 3: Manual excavation of surface impacts in the east bar ditch and wash by Halo Services Inc. contractors.



Photo 4: Visible surface impact, the location pictured is where the east bar ditch impact enters the rill and runs east. One point in a sample composite is visible.

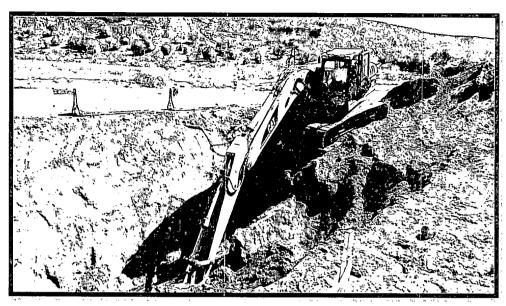


Photo 5: Initial excavation exposes impacted soils near the release. The depth of the pipeline necessitated a large excavation.

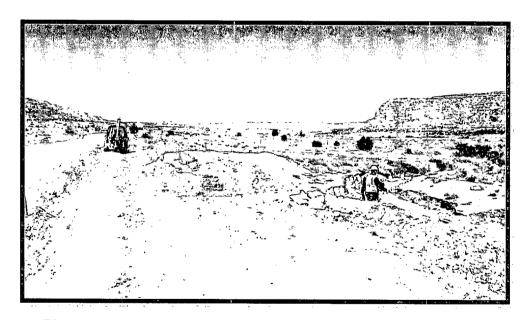


Photo 6: A rubber tire backhoe was used to remove the impact within the bar ditch. Also visible is the removal of surface impacts within the wash. View is to north.

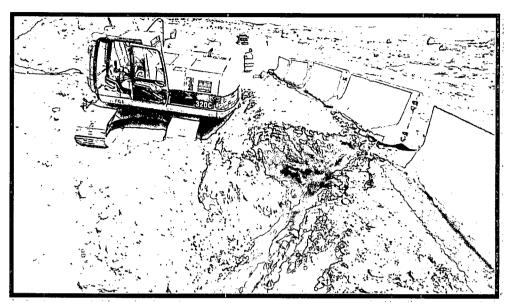


Photo 7: Contamination extended into the road base but was able to be removed by creating a shoofly to divert traffic to the east. Concrete barriers and barrels where used for safety.

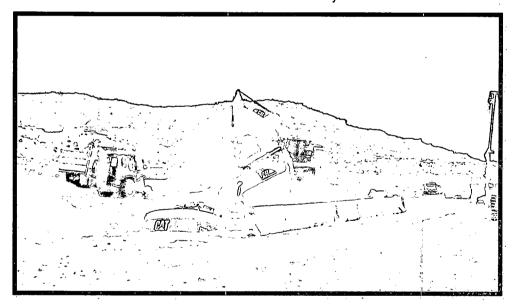


Photo 8: A second track mounted hoe was used to keep up with soil excavation and removal.

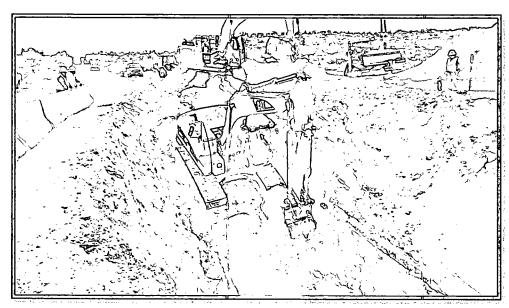


Photo 9: Heavily stained soils where encountered in the east end of the excavation however contamination was not detected in laboratory samples.

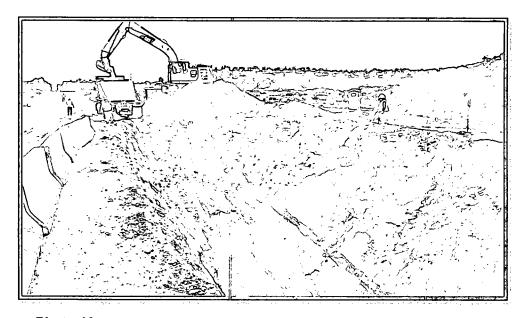


Photo 10: Final excavation extents measured over 130 feet long with depths to 35 feet below grade.

Appendix B Soil Disposal Documentation

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

State of New Mexico Energy Minerals and Natural Resources 97057-0693 Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-138 Revised 08/01/11

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 1. Generator Name and Address:

Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401
2. Originating Site: Lateral C-7 Pipeline Release March 2015
3. Location of Material (Street Address, City, State or ULSTR): Unit C Sec 1 T 27 N R 9 W, San Juan County, NM;36.610106, -107.740523
4. Source and Description of Waste: Source: Natural Gas Gathering Line Description: Hydrocarbon impacted soil/sludge/water released from a gathering line Estimated Volume _80_yd³ (bbl) Known Volume (to be entered by the operator at the end of the haul) 1798/315yd³/bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I, Thomas Long , representative or authorized agent for Enterprise Products Operating do hereby Generator Signature certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. **Operator Use Only: Waste Acceptance Frequency Monthly Weekly Per Load**
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
I, Thomas Long 3-3-15, representative for Enterprise Products Operating authorize to complete Generator Signature the required testing/sign the Generator Waste Testing Certification.
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: To Be Determined, Envirolach, Halo, BET, Confant, HBL, Flying M, Del Fracto, 3E OCD Permitted Surface Waste Management Facility Lokato, Esparza, B+B Excavation, Rockies
Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011 Address of Facility: Hilltop, NM Method of Treatment and/or Disposal: Evaporation Injection Treating Plant Landfarm Landfill Other
Waste Acceptance Status: APPROVED DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: Kendra Runung TITLE: Waste Coordinator DATE: 3/3/15 SIGNATURE: Surface Waste Management Facility Authorized Agent TELEPHONE NO.: 505-632-0615

<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 District II
1301 W. Grand Avenue, Artesia, NM 88210 District III
1000 Rio Brazos Road, Aztec, NM 87410 District IV

State of New Mexico Energy Minerals and Natural Resources 9 7057-0693

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

Form C-138 Revised 08/01/11

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

1220 S. St. Francis Dr., Santa Fe, NM 87505 Salita Fe, NIVI 87505
REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE
 Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401
2. Originating Site: Lateral C-7 Pipeline Release April 2015
3. Location of Material (Street Address, City, State or ULSTR): Unit C Sec 1 T 27 N R 9 W, San Juan County, NM;36.610106, -107.740523
4. Source and Description of Waste: Source: Natural Gas Gathering Line Description: Hydrocarbon impacted soil/sludge/water released from a gathering line Estimated Volume _80_yd³ (bbl) Known Volume (to be entered by the operator at the end of the haul)
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I, Thomas Long, representative or authorized agent for Enterprise Products Operating do hereby Generator Signature certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency Monthly Weekly Per Load
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☑ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
\mathcal{U}_{-} . t
1, Thomas Long 3-3-15, representative for Enterprise Products Operating authorize to complete Generator Signature the required testing/sign the Generator Waste Testing Certification.
I, Rendered
5. Transporter: To Be Determined Envirotech, Rich Trucking
OCD Permitted Surface Waste Management Facility Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011
Address of Facility: Hilltop, NM Method of Treatment and/or Disposal: Evaporation Injection Treating Plant Landfarm Landfill Other
Waste Acceptance Status: APPROVED DENIED (Must Be Maintained As Permanent, Record)
PRINT NAME: Kendra Runung SIGNATURE: TITLE: Ulaste Coordinator DATE: 4/1/15 TELEPHONE NO.: Surface Waste Management Facility Authorized Agent Surface Waste Management Facility Authorized Agent

Appendix C Laboratory Analytical Reports



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 18, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401 TEL: (505) 325-5667

FAX

RE: Lateral C-7 OrderNo.: 1503672

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/17/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503672

Date Reported: 3/18/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1

Project: Lateral C-7

Collection Date: 3/16/2015 2:24:00 PM

Lab ID: 1503672-001

Matrix: MEOH (SOIL) Received Date: 3/17/2015 7:10:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANC	SE ORGANICS	,				Analyst	: BCN
Diesel Range Organics (DRO)	93	10		mg/Kg	1	3/17/2015 1:03:40 PM	18172
Surr: DNOP	117	63.5-128		%REC	1	3/17/2015 1:03:40 PM	18172
EPA METHOD 8015D: GASOLINE RA	ANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	54	15		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Surr: BFB	167	80-120	S	%REC	5	3/17/2015 9:07:38 AM	18158
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.073		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Toluene	ND	0.15		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Ethylbenzene	ND	0.15		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Xylenes, Total	0.73	0.29		mg/Kg	5	3/17/2015 9:07:38 AM	18158
Surr: 4-Bromofluorobenzene	116	80-120		%REC	5	3/17/2015 9:07:38 AM	18158
EPA METHOD 300.0: ANIONS				·		Analyst	: LGT
Chloride	ND	30		mg/Kg	20	3/17/2015 9:24:05 AM	18176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- $R \quad \ \ RPD \ outside \ accepted \ recovery \ limits$
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503672

Received Date: 3/17/2015 7:10:00 AM

Date Reported: 3/18/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates Client Sample ID: SC-2

Lateral C-7 Project: Collection Date: 3/16/2015 2:26:00 PM Matrix: MEOH (SOIL)

Analyses Result RL Qual Units **DF** Date Analyzed Batch **EPA METHOD 8015D: DIESEL RANGE ORGANICS** Analyst: BCN Diesel Range Organics (DRO) 9.9 mg/Kg 3/17/2015 1:25:14 PM Surr: DNOP 63.5-128 %REC 112 3/17/2015 1:25:14 PM 18172 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) 43 2.9 mg/Kg 3/17/2015 9:36:22 AM Surr: BFB 329 S %REC 3/17/2015 9:36:22 AM 18158 80-120 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 3/17/2015 9:36:22 AM 0.029 mg/Kg 18158 Toluene 0.072 0.029 mg/Kg 3/17/2015 9:36:22 AM 18158 Ethylbenzene 0.11 0.029 mg/Kg 3/17/2015 9:36:22 AM Xylenes, Total 0.63 0.058 mg/Kg 3/17/2015 9:36:22 AM 18158 Surr: 4-Bromofluorobenzene %REC 3/17/2015 9:36:22 AM 132 80-120 18158

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Lab ID:

1503672-002

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- o RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 8

- Sample pH Not In Range
- RLReporting Detection Limit

Lab Order 1503672

Date Reported: 3/18/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-3

Project: Lateral C-7

Collection Date: 3/16/2015 2:28:00 PM

Lab ID: 1503672-003

Matrix: MEOH (SOIL) Received Date: 3/17/2015 7:10:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS				Analys	t: BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/17/2015 1:46:58 PM	18172
Surr: DNOP	106	63.5-128	%REC	1	3/17/2015 1:46:58 PM	18172
EPA METHOD 8015D: GASOLINE RA	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	3/17/2015 10:05:07 AM	1 18158
Surr: BFB	98.9	80-120	%REC	1	3/17/2015 10:05:07 AN	1 18158
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.030	mg/Kg	1	3/17/2015 10:05:07 AM	1 18158
Toluene	ND	0.030	mg/Kg	1	3/17/2015 10:05:07 AN	1 18158
Ethylbenzene	ND	0.030	mg/Kg	1	3/17/2015 10:05:07 AM	1 18158
Xylenes, Total	ND	0.061	mg/Kg	1	3/17/2015 10:05:07 AN	1 18158
Surr: 4-Bromofluorobenzene	112	80-120	%REC	1	3/17/2015 10:05:07 AM	18158
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/17/2015 9:36:29 AM	18176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503672

Date Reported: 3/18/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-4

Project: Lateral C-7

Collection Date: 3/16/2015 2:30:00 PM

Lab ID: 1503672-004

Matrix: MEOH (SOIL) Received Date: 3/17/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	st: BCN
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/17/2015 2:08:32 PM	18172
Surr: DNOP	110	63.5-128	%REC	1	3/17/2015 2:08:32 PM	18172
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/17/2015 10:33:48 A	M 18158
Surr: BFB	104	80-120	%REC	1	3/17/2015 10:33:48 A	M 18158
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.032	mg/Kg	1	3/17/2015 10:33:48 A	M 18158
Toluene	, ND	0.032	mg/Kg	1	3/17/2015 10:33:48 A	M 18158
Ethylbenzene	ND	0.032	mg/Kg	1	3/17/2015 10:33:48 A	M 18158
Xylenes, Total	ND	0.064	mg/Kg	1	3/17/2015 10:33:48 A	M 18158
Surr: 4-Bromofluorobenzene	110	80-120	%REC	1	3/17/2015 10:33:48 A	M 18158

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 4 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503672 18-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18176

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 18176

RunNo: 24873

Prep Date: 3/17/2015 Analysis Date: 3/17/2015

SeqNo: 732771

Units: mg/Kg

Qual

Analyte Chloride

PQL

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

%RPD

RPDLimit

ND 1.5

SampType: LCS

RunNo: 24873

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Prep Date: 3/17/2015

Sample ID LCS-18176

Batch ID: 18176

%REC

Units: mg/Kg

Analyte

Analysis Date: 3/17/2015

SeqNo: 732772

HighLimit

RPDLimit Qual

Result

SPK value SPK Ref Val

90

LowLimit

110

Chloride

14 1.5 15.00 94.2 0

PQL

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- RSD is greater than RSDlimit 0
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded-Н
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- Reporting Detection Limit RL

Page 5 of 8

Hall Environmental Analysis Laboratory, Inc.

18-Mar-15

1503672

WO#:

Client:

Souder, Miller and Associates

Project.

Lateral C-7

	Lateral C										
Sample ID	MB-18172	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Dies	el Range C	Organics	
Client ID:	PBS	Batch	iD: 18	172	RunNo: 24861						
Prep Date:	3/17/2015	Analysis D	ate: 3/	17/2015	S	SeqNo: 7	32781	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	Organics (DRO)	ND	10	40.00		440	22.5	100			
Surr: DNOP		11		10.00		113	63.5	128			
Sample ID	LCS-18172	SampT	ype: LC	s	Tes	tCode: Ef	PA Method	8015D: Dies	el Range C	Organics	
Client ID:	LCSS	Batch	ID: 18	172	F	RunNo: 24	4861				
Prep Date:	3/17/2015	Analysis D	ate: 3/	17/2015	S	SeqNo: 7	32873	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	Organics (DRO)	47	10	50.00	0	93.8	67.8	130			
Surr: DNOP		4.9		5.000		97.4	63.5	128			
Sample ID	1503672-001AMS	SampT	ype: MS	3	Tes	tCode: El	PA Method	8015D: Dies	el Range (Organics	
Client ID:	SC-1	Batch	ID: 18	172	F	RunNo: 2	4861				
Prep Date:	3/17/2015	Analysis D	ate: 3/	17/2015	S	SeqNo: 7	33111	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	190	10	49.80	92.72	191	29.2	176			S
Surr: DNOP		5.6		4.980		112	63.5	128			
Sample ID	1503672-001AMS) SampT	ype: MS	SD	Tes	tCode: El	PA Method	8015D: Dies	el Range (Organics	
Sample ID Client ID:		*	ype: MS			tCode: E		8015D: Dies	el Range (Organics	
Client ID:		*	ID: 18	172	F		4861	8015D: Diese	-	Organics	
Client ID:	SC-1	Batch	ID: 18	172 17/2015	F	RunNo: 2/ SeqNo: 7	4861		-	Organics RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range (SC-1 3/17/2015 Organics (DRO)	Batch Analysis D Result 240	ID: 18 ate: 3/	172 17/2015 SPK value 50.35	F	RunNo: 2/ SeqNo: 7	4861 33126	Units: mg/F	(g %RPD 22.9	RPDLimit 23	Qual S
Client ID: Prep Date: Analyte	SC-1 3/17/2015 Organics (DRO)	Batch Analysis D Result	ID: 18 ate: 3/	172 17/2015 SPK value	F S SPK Ref Val	RunNo: 24 SeqNo: 73 %REC	4861 33126 LowLimit	Units: mg/F	(g %RPD	RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	SC-1 3/17/2015 Organics (DRO)	Batch Analysis D Result 240 5.9	ID: 18 ate: 3/	172 17/2015 SPK value 50.35 5.035	SPK Ref Val 92.72	RunNo: 2-6 SeqNo: 7: %REC 286 117	4861 33126 LowLimit 29.2 63.5	Units: mg/F HighLimit 176	%RPD 22.9 0	RPDLimit 23 0	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	SC-1 3/17/2015 Organics (DRO)	Batch Analysis D Result 240 5.9 SampT	PQL 10: 18: 3/	172 17/2015 SPK value 50.35 5.035	SPK Ref Val 92.72	RunNo: 2-6 SeqNo: 7: %REC 286 117	4861 33126 LowLimit 29.2 63.5 PA Method	Units: mg/F HighLimit 176 128	%RPD 22.9 0	RPDLimit 23 0	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID:	SC-1 3/17/2015 Organics (DRO)	Batch Analysis D Result 240 5.9 SampT	PQL 10 ype: ME	172 17/2015 SPK value 50.35 5.035 BLK 142	SPK Ref Val 92.72 Tes	RunNo: 26 SeqNo: 73 %REC 286 117	4861 33126 LowLimit 29.2 63.5 PA Method	Units: mg/F HighLimit 176 128	%RPD 22.9 0	RPDLimit 23 0	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID:	SC-1 3/17/2015 Organics (DRO) MB-18142 PBS	Batch Analysis D Result 240 5.9 SampT Batch	PQL 10 ype: ME	172 17/2015 SPK value 50.35 5.035 3LK 142	SPK Ref Val 92.72 Tes	RunNo: 2: GeqNo: 7: %REC 286 117 Code: El	4861 33126 LowLimit 29.2 63.5 PA Method	Units: mg/k HighLimit 176 128 8015D: Diese	%RPD 22.9 0	RPDLimit 23 0	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date:	SC-1 3/17/2015 Organics (DRO) MB-18142 PBS 3/16/2015	Batch Analysis D Result 240 5.9 SampT Batch Analysis D	PQL 10 10 10 10 10 10 10 10 10 10 10 10 10 1	172 17/2015 SPK value 50.35 5.035 3LK 142	SPK Ref Val 92.72 Tes	RunNo: 2/6eqNo: 7: %REC 286 117 COde: El	4861 33126 LowLimit 29.2 63.5 PA Method 4861 33137	Units: mg/F HighLimit 176 128 8015D: Diese Units: %RE	%RPD 22.9 0 el Range C	RPDLimit 23 0	S
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte Surr: DNOP	SC-1 3/17/2015 Organics (DRO) MB-18142 PBS 3/16/2015	Batch Analysis D Result 240 5.9 SampT Batch Analysis D Result 11	PQL 10 10 10 10 10 10 10 10 10 10 10 10 10 1	172 17/2015 SPK value 50.35 5.035 3LK 142 17/2015 SPK value 10.00	SPK Ref Val 92.72 Tes F S	RunNo: 2/6eqNo: 7: %REC 286 117 tCode: El RunNo: 2/6eqNo: 7: %REC 108	4861 33126 LowLimit 29.2 63.5 PA Method 4861 33137 LowLimit 63.5	Units: mg/h HighLimit 176 128 8015D: Diese Units: %RE HighLimit	%RPD 22.9 0 el Range C %RPD	RPDLimit 23 0 Organics RPDLimit	S
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte Surr: DNOP	SC-1 3/17/2015 Organics (DRO) MB-18142 PBS 3/16/2015	Batch Analysis D Result 240 5.9 SampT Batch Analysis D Result 11 SampT	PQL 10 18 10 10 10 10 10 11 10 18 11 10 18 11 10 18 11 10 18 11 10 10	172 17/2015 SPK value 50.35 5.035 3LK 142 17/2015 SPK value 10.00	SPK Ref Val 92.72 Tes SPK Ref Val	RunNo: 2/6eqNo: 7: %REC 286 117 tCode: El RunNo: 2/6eqNo: 7: %REC 108	4861 33126 LowLimit 29.2 63.5 PA Method 4861 33137 LowLimit 63.5	Units: mg/k HighLimit 176 128 8015D: Diese Units: %RE HighLimit 128	%RPD 22.9 0 el Range C %RPD	RPDLimit 23 0 Organics RPDLimit	S
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte Surr: DNOP Sample ID	SC-1 3/17/2015 Organics (DRO) MB-18142 PBS 3/16/2015	Batch Analysis D Result 240 5.9 SampT Batch Analysis D Result 11 SampT	PQL 10: 18 ate: 3/ PQL 10: 18 ate: 3/ PQL 20: 10: 18 ate: 3/ PQL 20: 10: 18	172 17/2015 SPK value 50.35 5.035 3LK 142 17/2015 SPK value 10.00	SPK Ref Val 92.72 Tes SPK Ref Val Tes	RunNo: 2/6eqNo: 7: %REC 286 117 ICode: Ele RunNo: 2/6eqNo: 7: %REC 108	4861 33126 LowLimit 29.2 63.5 PA Method 4861 33137 LowLimit 63.5 PA Method	Units: mg/k HighLimit 176 128 8015D: Diese Units: %RE HighLimit 128	%RPD 22.9 0 el Range C %RPD el Range C	RPDLimit 23 0 Organics RPDLimit	S
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte Surr: DNOP Sample ID Client ID: Client ID:	SC-1 3/17/2015 Organics (DRO) MB-18142 PBS 3/16/2015	Batch Analysis D Result 240 5.9 SampT Batch Analysis D Result 11 SampT Batch	PQL 10: 18 ate: 3/ PQL 10: 18 ate: 3/ PQL 20: 10: 18 ate: 3/ PQL 20: 10: 18	172 17/2015 SPK value 50.35 5.035 3LK 142 17/2015 SPK value 10.00	SPK Ref Val 92.72 Tes SPK Ref Val Tes	RunNo: 2/6eqNo: 7: **REC 286 117 **Code: Electron 7: **REC 108 **Code: Electron 7: **Code: Electron 7: **REC 108 **Code: Electron 7: **Code: Electro	4861 33126 LowLimit 29.2 63.5 PA Method 4861 33137 LowLimit 63.5 PA Method	Units: mg/F HighLimit 176 128 8015D: Diese Units: %RE HighLimit 128 8015D: Diese	%RPD 22.9 0 el Range C %RPD el Range C	RPDLimit 23 0 Organics RPDLimit	S
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte Surr: DNOP Sample ID Client ID: Prep Date:	SC-1 3/17/2015 Organics (DRO) MB-18142 PBS 3/16/2015 LCS-18142 LCSS 3/16/2015	Batch Analysis D Result 240 5.9 SampT Batch Analysis D Result 11 SampT Batch Analysis D	PQL 10 18 10 10 10 10 10 10 10 10 10 10 10 10 10	172 17/2015 SPK value 50.35 5.035 3LK 142 17/2015 SPK value 10.00	SPK Ref Val 92.72 Tes SPK Ref Val Tes SPK Ref Val	RunNo: 2/6eqNo: 7: **REC 286 117 **Code: Electron 7: **REC 108 **Code: Electron 7: **Code: Electron 7: **REC 108 **Code: Electron 7: **Code: Electro	4861 33126 LowLimit 29.2 63.5 PA Method 4861 33137 LowLimit 63.5 PA Method 4861 33142	Units: mg/F HighLimit 176 128 8015D: Diese Units: %RE HighLimit 128 8015D: Diese Units: %RE	%RPD 22.9 0 el Range C %RPD el Range C	RPDLimit 23 0 Organics RPDLimit Organics	S Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1503672

18-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18158	SampT	ype: Mi	BLK	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	ie	
Client ID: PBS	Batch ID: 18158 Analysis Date: 3/17/2015				RunNo: 2				, -	
Prep Date: 3/16/2015				SeqNo: 733166			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.4	80	120			
Sample ID LCS-18158	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	je	
Client ID: LCSS	Batch	n ID: 18	158	F	RunNo: 2	4877				
Prep Date: 3/16/2015	Analysis D	ate: 3/	17/2015	5	SeqNo: 7	33167	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	64	130			
Surr: BER	1000		1000		101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 7 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503672

18-Mar-15

Client:

Souder, Miller and Associates

Project

Lateral C-7

Sample ID MB-18158	SampType: MBLK			Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID: PB\$	Batch ID: 18158			F	RunNo: 24877					
Prep Date: 3/16/2015	Analysis Date: 3/17/2015			SeqNo: 733197			Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Kylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			
Sample ID LCS-18158	Samp	ype: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles	,	
0" 115 1000				_	RunNo: 2	4977				
Client ID: LCSS	Batc	h ID: 18	158	F	KUHINO. Z	4011	,			
	Batci Analysis D				SeqNo: 7		Units: mg/K	(g		
Prep Date: 3/16/2015			17/2015				Units: mg/K	(g %RPD	RPDLimit	Qual
Prep Date: 3/16/2015 Analyte	Analysis [Date: 3/	17/2015	. 8	SeqNo: 7	33198	•		RPDLimit	Qual
Prep Date: 3/16/2015 Analyte Benzene	Analysis [Result	PQL	17/2015 SPK value	SPK Ref Val	SeqNo: 7:	33198 LowLimit	HighLimit		RPDLimit	Qual
Prep Date: 3/16/2015 Analyte Benzene Foluene	Analysis [Result	PQL 0.050	17/2015 SPK value 1.000	SPK Ref Val	%REC 116	33198 LowLimit 76.6	HighLimit 128		RPDLimit	Qual
	Analysis E Result 1.2 1.1	PQL 0.050 0.050	17/2015 SPK value 1.000 1.000	SPK Ref Val	SeqNo: 7: %REC 116 110	33198 LowLimit 76.6 75	HighLimit 128 124		RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 8 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	SMA-FARM	Work Order Number	er: 1503672		RcptNo:	1
Received by/dat	te: Lindsay Mangi	05/17/15 n 3/17/2015 7:10:00 A	M	Jimahy Hlajiya		
Completed By:	Lindsay Mangi		M	Street Hortes		
Reviewed By:	•			000		
Chain of Cus		117115	•			l
	als intact on sample	e bottles?	Yes 🗌	No 🗌	Not Present	
	Custody complete?		Yes 🗭	No 🗌	Not Present	
3. How was the	e sample delivered	?	Courier			
Log In						
4. Was an atte	empt made to cool	the samples?	Yes 🗭	No 🗌	NA 🗆	
5. Were all sar	mples received at a	a temperature of >0° C to 6.0°C	Yes 🐼	No 🗌	NA 🗌	
6. Sample(s) i	n proper container	(s)?	Yes 🗷	No 🗆		
7. Sufficient sa	ample volume for in	ndicated test(s)?	Yes 🗭	No 🗆		
8. Are samples	s (except VOA and	ONG) properly preserved?	Yes 🗹	No 🗌		
9. Was presen	vative added to bot	ttles?	Yes	No 🗹	NA 🗆	
10.VOA vials h	ave zero headspac	ce?	Yes 🗌	No 🗆	No VOA Vials 🗹	•
11, Were any s	ample containers i	received broken?	Yes 🗌	No 🗹 [# of preserved	
	work match bottle		Yes 🗹	No 🗆	bottles checked for pH:	r >12 unless noted)
	pancies on chain o	••	Yes 🐼	No 🗆	Adjusted?	1 > 12 uniess noted)
	nat analyses were	d on Chain of Custody? requested?	Yes 🛃	No 🗆		
15. Were all hol	ding times able to customer for auth	be met?	Yes 🐼	No 🗆	Checked by:	·····
		·				
Special Hand	dling (if applica	able)			•	
16. Was client r	notified of all discre	epancies with this order?	Yes 🗌	No 🗆	NA 🗹	1
1	n Notified:	Date			-	
By Wi	1	Via:	eMail	Phone 🔲 Fax	In Person	
Regar	-	tak tahun perinangan dalah dalah dan perinangan dalah dalah perinangan beranasa dalah dalah perinangan beranasa	Company of the State of the Sta		and the section of th	
17. Additional r	Instructions:					.
18. Cooler Info		condition Seal Intact Seal No	Seal Date	Signed By		
1	3.0 Go		OGG: Date	Signed by		
No. of the action of the second	. dagast dan dengangangan pananan ya sidan masa Mara daga tarah	nannennen netamatuska og farmanagen om a tarini tilbingkinnarek erkannar og tilbekan nemb	A			

C	hain-	of-Cu	stod	y Record	Turn-Around	Time:		7 .					_		### III					
lient:		NA			│ │ □ Standard	⊠ Rush	Same Day												NT	AL DRY
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1ailing	Address	401	$\overline{\omega}$	Broadway	Lat	eral (2-7		490)1 H:		ww.h s NE						7109		
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≀A/QC I ∃ Stan	Package:			ا 4 (Full Validation)	Steve	- Mos	skal	EMB's (8021)	+ TPH (Gas only)	DRO / MRO)		SIMS		00,S(PCB's			sas		
Accredi				· · (i cii · ciiiaatioti)	Sampler:	csse	Same	┤∰	Ĭ	띪		~ S		100	382			- Ta	1	
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∃ EDD	(Type)		 _		Sample Tem	erature: 37			띪	9	8	8 6	etals	Ž	side	A)	\			\ <u>\</u>
Date	Time	Matrix	Sam	ple Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX +	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EUB (Method 50 PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	300.0		Air Bubbles (Y or N)
6-15	1924	Soil	5	_ _	1 402 Mack X	Meok	-001	V		X						3		X		
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 19, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401 TEL: (505) 325-5667

FAX

RE: Lateral C-7

OrderNo.: 1503746

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/18/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-5

Project: Lateral C-7

Collection Date: 3/17/2015 10:15:00 AM

Lab ID: 1503746-001

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	15	10	mg/Kg	1	3/18/2015 1:12:03 PM	1 18173
Surr: DNOP	106	63.5-128	%REC	1	3/18/2015 1:12:03 PM	1 18173
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	3/18/2015 11:23:40 A	M 18167
Surr: BFB	91.4	80-120	%REC	1	3/18/2015 11:23:40 A	M 18167
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.035	mg/Kg	1	3/18/2015 11:23:40 A	M 18167
Toluene	ND	0.035	mg/Kg	. 1	3/18/2015 11:23:40 A	M 18167
Ethylbenzene	ND	0.035	mg/Kg	1	3/18/2015 11:23:40 A	M 18167
Xylenes, Total	ND	0.069	mg/Kg	1	3/18/2015 11:23:40 A	M 18167
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/18/2015 11:23:40 A	M 18167
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/18/2015 10:29:03 A	M 18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6

Project: Lateral C-7

Collection Date: 3/17/2015 10:18:00 AM

Lab ID: 1503746-002

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/18/2015 1:33:44 PM	18173
Surr: DNOP	106	63.5-128	%REC	1	3/18/2015 1:33:44 PM	18173
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Surr: BFB	90.4	80-120	%REC	1	3/18/2015 11:52:24 A	M 18167
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.036	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Toluene	ND	0.036	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Ethylbenzene	ND	0.036	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Xylenes, Total	ND	0.072	mg/Kg	1	3/18/2015 11:52:24 A	M 18167
Surr: 4-Bromofluorobenzene	104	80-120	%REC	1	3/18/2015 11:52:24 A	M 18167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-7

Project: Lateral C-7

Collection Date: 3/17/2015 10:21:00 AM

Lab ID: 1503746-003

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS	300			Analy	st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/18/2015 1:55:25 PM	и 18173
Surr: DNOP	104	63.5-128	%REC	1	3/18/2015 1:55:25 PM	M 18173
EPA METHOD 8015D: GASOLINE R	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	3/18/2015 12:21:12 F	M 18167
Surr: BFB	.92.8	80-120	%REC	1	3/18/2015 12:21:12 F	PM 18167
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.036	mg/Kg	1	3/18/2015 12:21:12 F	PM 18167
Toluene	ND	0.036	mg/Kg	1	3/18/2015 12:21:12 F	PM 18167
Ethylbenzene	ND	0.036	mg/Kg	1	3/18/2015 12:21:12 F	PM 18167
Xylenes, Total	ND	0.071	mg/Kg	1	3/18/2015 12:21:12 F	PM 18167
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/18/2015 12:21:12 F	PM 18167
EPA METHOD 300.0: ANIONS					Analy	/st: LGT
Chloride	ND	30	mg/Kg	20	3/18/2015 10:41:27 A	M 18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-8

Project: Lateral C-7

Collection Date: 3/17/2015 10:24:00 AM

Lab ID: 1503746-004

Matrix: MEOH (SOIL) R

Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGI	E ORGANICS					Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/18/2015 2:17:18 PM	18173
Surr: DNOP	109	63.5-128		%REC	1	3/18/2015 2:17:18 PM	18173
EPA METHOD 8015D: GASOLINE RAI	NGE					Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	3/18/2015 12:49:55 PM	1 18167
Surr: BFB	126	80-120	s	%REC	1	3/18/2015 12:49:55 PM	1 18167
EPA METHOD 8021B: VOLATILES	*					Analys	t: NSB
Benzene	ND	0.032		mg/Kg	1	3/18/2015 12:49:55 PM	18167
Toluene	ND	0.032		mg/Kg	1	3/18/2015 12:49:55 PM	18167
Ethylbenzene	ND	0.032		mg/Kg	1	3/18/2015 12:49:55 PM	18167
Xylenes, Total	ND	0.063		mg/Kg	1	3/18/2015 12:49:55 PM	1 18167
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	3/18/2015 12:49:55 PM	18167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 4 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-9

Project: Lateral C-7

Collection Date: 3/17/2015 10:27:00 AM

Lab ID: 1503746-005

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	24	10	mg/Kg	1	3/18/2015 2:39:02 PM	18173
Surr: DNOP	103	63.5-128	%REC	1	3/18/2015 2:39:02 PM	18173
EPA METHOD 8015D: GASOLINE R.	ANGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Surr: BFB	90.6	80-120	%REC	1	3/18/2015 1:18:37 PM	18167
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.033	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Toluene	ND	0.033	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Ethylbenzene	ND	0.033	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Xylenes, Total	ND	0.066	mg/Kg	1	3/18/2015 1:18:37 PM	18167
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/18/2015 1:18:37 PM	18167
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/18/2015 10:53:53 AM	18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 5 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-10

Project: Lateral C-7

Collection Date: 3/17/2015 10:30:00 AM

Lab ID: 1503746-006

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/18/2015 3:02:17 PM	18173
Surr: DNOP	103	63.5-128	%REC	1	3/18/2015 3:02:17 PM	18173
EPA METHOD 8015D: GASOLINE RA	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Surr: BFB	91.9	80-120	%REC	1	3/18/2015 7:03:18 PM	18167
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.032	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Toluene	ND	0.032	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Ethylbenzene	ND	0.032	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Xylenes, Total	ND	0.064	mg/Kg	1	3/18/2015 7:03:18 PM	18167
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/18/2015 7:03:18 PM	18167
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/18/2015 11:06:17 AM	18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 6 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-11

Project: Lateral C-7

Collection Date: 3/17/2015 10:33:00 AM

Lab ID: 1503746-007

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analysi	: JME
Diesel Range Organics (DRO)	25	9.9	mg/Kg	1	3/18/2015 3:24:05 PM	18173
Surr: DNOP	110	63.5-128	%REC	1	3/18/2015 3:24:05 PM	18173
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst	:: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Surr: BFB	108	80-120	%REC	1	3/18/2015 7:32:05 PM	18167
EPA METHOD 8021B: VOLATILES					Analyst	:: NSB
Benzene	ND	0.033	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Toluene	ND	0.033	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Ethylbenzene	ND	0.033	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Xylenes, Total	ND	0.067	mg/Kg	1	3/18/2015 7:32:05 PM	18167
Surr: 4-Bromofluorobenzene	109	80-120	%REC	1	3/18/2015 7:32:05 PM	18167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 7 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12

Project: Lateral C-7

Collection Date: 3/17/2015 10:36:00 AM

Lab ID: 1503746-008

Matrix: MEOH (SOIL) Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL (Qual 1	J nits	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS					Analyst	: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/18/2015 3:46:00 PM	18173
Surr: DNOP	100	63.5-128		%REC	1	3/18/2015 3:46:00 PM	18173
EPA METHOD 8015D: GASOLINE R.	ANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	4.1	2.9		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Surr: BFB	125	80-120	S	%REC	1	3/18/2015 8:00:49 PM	18167
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.029		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Toluene	ND	0.029		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Ethylbenzene	ND	0.029		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Xylenes, Total	ND	0.059		mg/Kg	1	3/18/2015 8:00:49 PM	18167
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/18/2015 8:00:49 PM	18167
EPA METHOD 300.0: ANIONS						Analyst	: LGT
Chloride	ND	30		mg/Kg	20	3/18/2015 11:18:41 AM	18203

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 8 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503746

Date Reported: 3/19/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-13

Project: Lateral C-7

Collection Date: 3/17/2015 10:39:00 AM

Lab ID: 1503746-009

Matrix: MEOH (SOIL) Re

Received Date: 3/18/2015 7:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	ORGANICS				Analys	:: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/18/2015 4:07:36 PM	18173
Surr: DNOP	103	63.5-128	%REC	1	3/18/2015 4:07:36 PM	18173
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Surr: BFB	91.6	80-120	%REC	1	3/18/2015 8:29:31 PM	18167
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.030	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Toluene	ND	0.030	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Ethylbenzene	ND	0.030	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Xylenes, Total	ND	0.059	mg/Kg	1	3/18/2015 8:29:31 PM	18167
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	3/18/2015 8:29:31 PM	18167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 9 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503746

19-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18203

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 18203

RunNo: 24924

%REC LowLimit

Prep Date:

3/18/2015

Analysis Date: 3/18/2015

PQL

SeqNo: 734344

Units: mg/Kg HighLimit

RPDLimit %RPD

Qual

Analyte Chloride

Result ND

1.5

Sample ID LCS-18203

SampType: LCS

RunNo: 24924

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Prep Date: 3/18/2015

Batch ID: 18203 Analysis Date: 3/18/2015

SeqNo: 734345

Units: mg/Kg

%RPD **RPDLimit**

Qual

Result **PQL**

0

Analyte Chloride

110

15.00

14

SPK value SPK Ref Val

SPK value SPK Ref Val

%REC 95.4

LowLimit

HighLimit

1.5 90

Qualifiers:

0

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range

RSD is greater than RSDlimit

- Analyte detected below quantitation limits
- RPD outside accepted recovery limits R

Spike Recovery outside accepted recovery limits

- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н ND Not Detected at the Reporting Limit
- Sample pH Not In Range
- P Reporting Detection Limit RL

Page 10 of 13

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503746

19-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18173	SampType: M	BLK	Test	Code: EF	A Method	8015D: Dies	el Range C	Organics	
Client ID: PBS	Batch ID: 18	3173	R	tunNo: 24	1890				
Prep Date: 3/18/2015	Analysis Date: 3	/18/2015	S	eqNo: 7	33846	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO) Surr: DNOP	ND 10 10	10.00		100	63.5	128			
Sample ID LCS-18173	SampType: L0	cs	Tes	Code: EF	PA Method	8015D: Dies	el Range (Organics	
								-	
Client ID: LCSS	Batch ID: 18	3173	R	RunNo: 24	4890			_	
Client ID: LCSS Prep Date: 3/18/2015		3173 3/18/2015		RunNo: 24 SeqNo: 7		Units: mg/K	(g	-	
		3/18/2015				Units: mg/K	(g %RPD	RPDLimit	Qual
Prep Date: 3/18/2015	Analysis Date: 3	3/18/2015 SPK value	S	SeqNo: 7	33847	J	•	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 11 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503746 19-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18167	SampTy	pe: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID: PBS	Batch	ID: 18	167	F	RunNo: 2	4903				
Prep Date: 3/16/2015	Analysis Da	te: 3/	18/2015	S	SeqNo: 7	33915	Units: mg/k	(g		•
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.5	80	120			
Sample ID LCS-18167	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	je	
Client ID: LCSS	Batch	ID: 18	167	F	RunNo: 2	4903				
Prep Date: 3/16/2015	Analysis Da	te: 3/	18/2015	5	SeqNo: 7	33916	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	64	130			
Sum: BFB	1000		1000		101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 12 of 13

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503746

19-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18167	Samp	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles			
Client ID: PBS	Batc	h ID: 18	167	F	RunNo: 2	4903					
Prep Date: 3/16/2015	Analysis [Date: 3/	18/2015	SeqNo: 733941			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.050									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120				
Sample ID LCS-18167	Samp	Гуре: LC	 :s	. TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batc	h ID: 18	167	F	RunNo: 2	4903					

Sample ID LCS-18167	SampT	ype: LC	S	TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch	h ID: 18	167	R	RunNo: 2	4903					
Prep Date: 3/16/2015	Analysis D	ate: 3/	18/2015	S	SeqNo: 733942 Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.2	0.050	1.000	0	122	76.6	128				
Toluene	1.1	0.050	1.000	0	115	75	124				
Ethylbenzene	1.2	0.050	1.000	. 0	116	79.5	126				
Xylenes, Total	3.4	0.10	3.000	0	115	78.8	124				
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 13 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory '4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	SMA-FARM	Work Order Number:	1503746		RcptNo:	1
Received by/dat	, ,	03/18/18		Stand States		
Logged By:	Lindsay Mangin			7711		
Completed By:	Lindsay Mangin	3/18/2015 7:19:53 AM		Jimby Hlongs		
Reviewed By:	AT 03/1	8/15				
Chain of Cus	stody					
1. Custody sea	als intact on sample	bottles?	Yes 🗌	No 🗌	Not Present 🕏	
2. Is Chain of 0	Custody complete?	•	Yes 🐼	No 🗌	Not Present	
3. How was the	e sample delivered?		Courier			
Log In						
4. Was an atte	empt made to cool t	he samples?	Yes 🛃	No 🗌	na 🗌	
5. Were all sa	mples received at a	temperature of >0° C to 6.0°C	Yes 🐼	No 🗌	. NA 🗆	
6. Sample(s) i	in proper container(s	s)?	Yes 🤡	No 🗆		
7. Sufficient sa	ample volume for inc	dicated test(s)?	Yes 🗹	No 🗌		
8. Are sample:	s (except VOA and	ONG) properly preserved?	Yes 🕏	No 🗀		
9. Was preser	vative added to bott	les?	Yes	No 🗹	NA 🗌	
10.VOA vials h	nave zero headspac	e?	Yes 🗌	No 🗌	No VOA Vials	
11. Were any s	sample containers re	eceived broken?	Yes .	No 🗹	# of preserved bottles checked	
	work match bottle la epancies on chain o		Yes 🗹	No 🗆	for pH:	r >12 unless noted)
13. Are matrice	s correctly identified	f on Chain of Custody?	Yes 🕏	No 🗌	Adjusted?	
14. Is it clear w	hat analyses were r	equested?	Yes 🗷	No 🗌		
	lding times able to to country customer for author		Yes 🕏	No 🗌	Checked by:	,.
Special Han	dling (if applica	oblo)				
		pancies with this order?	Yes 🗌	No 🗌	NA 🐼	
	· .					
By W	on Notified:	Date: Via:	eMail	Phone Fax	☐ In Person	
Rega			civiaii			
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18. Cooler Inf	formation					
Cooler		ondition Seal Intact Seal No	Seal Date	Signed By		
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Date	Ţime	Matrix	Samı	ole Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX)+ MTBE	BTEX + MTBE	TPH 8015B	TPH (Method 41 FDB (Method 50	PAH's (8310	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	300.0	, ,		Air Bubbles (Y or N)
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,	f necessary,	samples sub	mitted to Hall	Environmental may be subo	contracted to other a	ccredited laboratori	es. This serves as notice of the	is possi	bility. A	ny sub	-contrac	eddata	e (VIII) t	e clear	iy nota	ted on	the an	alytical	report.		



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

OrderNo.: 1503845

March 23, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401 TEL: (505) 325-5667

FAX

RE: Lateral C-7

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 20 sample(s) on 3/19/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-14 N Wall

Project: Lateral C-7

Collection Date: 3/18/2015 1:43:00 PM

Lab ID: 1503845-001

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	ORGANICS				Analys	st: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/19/2015 10:34:09 A	M 18221
Surr: DNOP	107	63.5-128	%REC	1	3/19/2015 10:34:09 A	M 18221
EPA METHOD 8015D: GASOLINE RAM	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	2.8	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Surr: BFB	92.2	80-120	%REC	1	3/19/2015 2:24:40 PM	18213
EPA METHOD 8021B: VOLATILES	,				Analys	st: NSB
Benzene	ND	0.028	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Toluene	ND	0.028	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Ethylbenzene	ND	0.028	mg/Kg	1	3/19/2015 2:24:40 PM	18213
Xylenes, Total	ND	0.056	mg/Kg	1	3/19/2015 2:24:40 PM	1 . 18213
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	3/19/2015 2:24:40 PM	18213
EPA METHOD 300.0: ANIONS					Analys	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 11:22:22 A	M 18226

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-15 N Back

Project: Lateral C-7

Collection Date: 3/18/2015 1:46:00 PM

Lab ID: 1503845-002 **Matrix:** SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/19/2015 11:01:40 A	M 18221
Surr: DNOP	117	63.5-128	%REC	1	3/19/2015 11:01:40	M 18221
EPA METHOD 8015D: GASOLINE R	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	2.9	mg/Kg	1	3/19/2015 10:05:57	M 18213
Surr: BFB	92.8	80-120	%REC	1	3/19/2015 10:05:57	M 18213
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.029	mg/Kg	1	3/19/2015 10:05:57	M 18213
Toluene	ND	0.029	mg/Kg	1	3/19/2015 10:05:57	M 18213
Ethylbenzene	ND	0.029	mg/Kg	1	3/19/2015 10:05:57	M 18213
Xylenes, Total	ND	0.057	mg/Kg	1	3/19/2015 10:05:57	M 18213
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	3/19/2015 10:05:57	M 18213
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 11:59:35 A	AM 18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-16 N Wall Deep

Project: Lateral C-7

Collection Date: 3/18/2015 1:49:00 PM

Lab ID: 1503845-003

Matrix: SOIL R

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF D	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1 :	3/19/2015 11:28:54 AI	vi 18221
Surr: DNOP	121	63.5-128	%REC	1 :	3/19/2015 11:28:54 AI	M 18221
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1 :	3/19/2015 10:34:46 AI	M 18213
Surr: BFB	93.4	80-120	%REC	1 :	3/19/2015 10:34:46 Al	M 18213
EPA METHOD 8021B: VOLATILES					Ánalys	t: NSB
Benzene	ND	0.030	mg/Kg	1 :	3/19/2015 10:34:46 AI	M 18213
Toluene	ND	0.030	mg/Kg	1 :	3/19/2015 10:34:46 AI	M 18213
Ethylbenzene	ND	0.030	mg/Kg	1 :	3/19/2015 10:34:46 Al	M 18213
Xylenes, Total	ND	0.061	mg/Kg	1 :	3/19/2015 10:34:46 Af	M 18213
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1 :	3/19/2015 10:34:46 AI	M 18213
EPA METHOD 300.0: ANIONS		,			Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 12:12:00 PI	M 18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-17 N Deep Base

Project: Lateral C-7

Collection Date: 3/18/2015 1:52:00 PM

Lab ID: 1503845-004

Matrix: SOIL Received Date:

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 12:01:59 PN	1 18221
Surr: DNOP	114	63.5-128	%REC	1	3/19/2015 12:01:59 PM	1 18221
EPA METHOD 8015D: GASOLINE RA	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Surr: BFB	93.6	80-120	%REC	1	3/19/2015 2:53:25 PM	R24929
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.033	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Toluene .	ND	0.033	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Ethylbenzene	ND	0.033	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Xylenes, Total	ND	0.067	mg/Kg	1	3/19/2015 2:53:25 PM	R24929
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/19/2015 2:53:25 PM	R24929
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 12:49:13 PM	1 18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-18 S Deep Base

Project: Lateral C-7

Collection Date: 3/18/2015 1:55:00 PM

Lab ID: 1503845-005

845-005 Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/19/2015 12:29:22 F	PM 18221
Surr: DNOP	115	63.5-128	%REC	1	3/19/2015 12:29:22 F	PM 18221
EPA METHOD 8015D: GASOLINE RA	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Surr: BFB	94.3	80-120	%REC	1	3/19/2015 11:03:30 A	M 18213
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.033	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Toluene	ND	0.033	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Ethylbenzene	ND	0.033	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Xylenes, Total	ND -	0.066	mg/Kg	1	3/19/2015 11:03:30 A	M 18213
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/19/2015 11:03:30 A	M 18213
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:01:38 Pf	M 18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-19 S Deep Wall

Project: Lateral C-7

Collection Date: 3/18/2015 1:58:00 PM

Lab ID: 1503845-006

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 10:38:27 Al	VI 18221
· Surr: DNOP	106	63.5-128	%REC	1	3/19/2015 10:38:27 A	M 18221
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	2.8	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Surr: BFB	93.5	80-120	%REC	1	3/19/2015 11:32:18 A	M 18213
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.028	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Toluene	ND	0.028	mg/Kg	· 1	3/19/2015 11:32:18 A	M 18213
Ethylbenzene	ND	0.028	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Xylenes, Total	ND	0.056	mg/Kg	1	3/19/2015 11:32:18 A	M 18213
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	3/19/2015 11:32:18 A	M 18213
EPA METHOD 300.0: ANIONS					Analys	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:14:02 PM	18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-20 S Back

Project: Lateral C-7

1503845-007 Lab ID:

Collection Date: 3/18/2015 2:01:00 PM Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 10:59:55 AM	1 18221
Surr: DNOP	107	63.5-128	%REC	1	3/19/2015 10:59:55 AM	1 18221
EPA METHOD 8015D: GASOLINE RA	ANGE .				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Surr: BFB	92.4	80-120	%REC	1	3/19/2015 7:11:46 PM	R24929
EPA METHOD 8021B: VOLATILES			•		Analys	t: NSB
Benzene	ND	0.032	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Toluene	N D,	0.032	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Ethylbenzene	ND	0.032	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Xylenes, Total	ND	0.064	mg/Kg	1	3/19/2015 7:11:46 PM	R24929
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/19/2015 7:11:46 PM	R24929
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:26:27 PM	18226

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RLReporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-21 S Wall

Lateral C-7 Project:

Collection Date: 3/18/2015 2:04:00 PM

1503845-008 Lab ID:

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 11:21:29 A	M 18221
Surr: DNOP	98.4	63.5-128	%REC	1	3/19/2015 11:21:29 A	M 18221
EPA METHOD 8015D: GASOLINE RA	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.1	mg/Kg	1	3/19/2015 12:01:01 F	M 18213
Surr: BFB	93.7	80-120	%REC	1	3/19/2015 12:01:01 F	PM 18213
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.031	mg/Kg	1	3/19/2015 12:01:01 F	PM 18213
Toluene	ND	0.031	mg/Kg	1	3/19/2015 12:01:01 F	M 18213
Ethylbenzene	ND	0.031	mg/Kg	1	3/19/2015 12:01:01 F	PM 18213
Xylenes, Total	ND	0.062	mg/Kg	1	3/19/2015 12:01:01 F	PM 18213
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/19/2015 12:01:01 F	M 18213
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:38:51 PM	M 18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 8 of 30 Sample pH Not In Range

- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-22 NE Wall

Project: Lateral C-7

Collection Date: 3/18/2015 2:07:00 PM

Lab ID: 1503845-009

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	· RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 11:42:50 AM	1 18221
Surr: DNOP	102	63.5-128	%REC	1	3/19/2015 11:42:50 AM	1 18221
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Surr. BFB	93.4	80-120	%REC	1	3/19/2015 7:40:31 PM	R24929
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.032	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Toluene	ND	0.032	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Ethylbenzene	ND	0.032	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Xylenes, Total	ND	0.064	mg/Kg	1	3/19/2015 7:40:31 PM	R24929
Surr: 4-Bromofluorobenzene	108	80-120	%REC	1	3/19/2015 7:40:31 PM	R24929
EPA METHOD 300.0: ANIONS				•	Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 1:51:16 PM	18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not ln Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-23 NE Wall 2

Project: Lateral C-7

Collection Date: 3/18/2015 2:10:00 PM

Lab ID: 1503845-010

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 12:04:23 PM	18221
Surr: DNOP	99.1	63.5-128	%REC	1	3/19/2015 12:04:23 PM	18221
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	. 20	3/19/2015 2:03:40 PM	18226
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst	cadg
Benzene	ND	0.036	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Toluene	ND	0.036	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Ethylbenzene	ND	0.036	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Xylenes, Total	ND	0.071	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Surr: 1,2-Dichloroethane-d4	99.1	70-130	%REC	1	3/19/2015 3:02:05 PM	R24920
Surr: 4-Bromofluorobenzene	102	70-130	%REC	1	3/19/2015 3:02:05 PM	R24920
Surr: Dibromofluoromethane	. 102	70-130	%REC	1	3/19/2015 3:02:05 PM	R24920
Surr: Toluene-d8	88.1	70-130	%REC	1	3/19/2015 3:02:05 PM	R24920
EPA METHOD 8015D MOD: GASOLI	NE RANGE				Analyst	cadg
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	3/19/2015 3:02:05 PM	R24920
Surr: BFB	110	67.4-150	%REC	1	3/19/2015 3:02:05 PM	R24920

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-24 E Wall Deep

Project: Lateral C-7

Collection Date: 3/18/2015 2:13:00 PM

Lab ID: 1503845-011

Matrix: SOIL Received

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 12:25:48 P	M 18221
Surr: DNOP	101	63.5-128	%REC	1	3/19/2015 12:25:48 P	M 18221
EPA METHOD 8015D: GASOLINE R	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	2.9	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Surr: BFB	94.5	80-120	%REC	1	3/19/2015 12:29:43 P	M 18213
EPA METHOD 8021B: VOLATILES			•		Analy	st: NSB
Benzene	ND	0.029	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Toluene	ND	0.029	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Ethylbenzene	ND	0.029	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Xylenes, Total	ND	0.058	mg/Kg	1	3/19/2015 12:29:43 P	M 18213
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	3/19/2015 12:29:43 P	M 18213
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 2:16:05 PM	1 18226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Project: Lateral C-7

Lab ID: 1503845-012

Client Sample ID: SC-25 E Wall Deep South

Collection Date: 3/18/2015 2:16:00 PM

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS	•		·	Analy	st: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 12:47:18 F	M 18221
Surr: DNOP	105	63.5-128	%REC	1	3/19/2015 12:47:18 F	M 18221
EPA METHOD 8015D: GASOLINE R	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/19/2015 12:58:28 F	M 18213
Surr: BFB	94.0	80-120	%REC	1	3/19/2015 12:58:28 F	PM 18213
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.032	mg/Kg	1	3/19/2015 12:58:28 F	M. 18213
Toluene	ND	0.032	mg/Kg	1	3/19/2015 12:58:28 F	PM 18213
Ethylbenzene	ND	0.032	mg/Kg	1	3/19/2015 12:58:28 F	M 18213
Xylenes, Total	ND	0.065	mg/Kg	1	3/19/2015 12:58:28 F	PM 18213
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	3/19/2015 12:58:28 F	PM 18213
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 2:28:29 PM	vi 18226

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- Reporting Detection Limit RL

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-26 E Wall S

Project: Lateral C-7

Collection Date: 3/18/2015 2:19:00 PM

Lab ID: 1503845-013

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 1:08:43 PM	18221
Surr: DNOP	108	63.5-128	%REC	1	3/19/2015 1:08:43 PM	18221
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 2:40:54 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.035	mg/Kg	1	3/19/2015 11:11:41 AM	/ R24920
Toluene	ND	0.035	mg/Kg	1	3/19/2015 11:11:41 AM	/ R24920
Ethylbenzene	ND	0.035	mg/Kg	1	3/19/2015 11:11:41 AM	/ R24920
Xylenes, Total	ND	0.070	mg/Kg	1	3/19/2015 11:11:41 AM	/ R24920
Surr: 1,2-Dichloroethane-d4	97.3	70-130	%REC	1	3/19/2015 11:11:41 AM	/ R24920
Surr: 4-Bromofluorobenzene	99.6	70-130	%REC	1	3/19/2015 11:11:41 AM	A R24920
Surr: Dibromofluoromethane	101	70-130	%REC	1	3/19/2015 11:11:41 AM	A R24920
Surr: Toluene-d8	94.1	70-130	%REC	1	3/19/2015 11:11:41 AM	M R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	3/19/2015 11:11:41 AM	M R24920
Surr: BFB	110	67.4-150	%REC	1	3/19/2015 11:11:41 AM	M R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-27 E Wall S2

Project: Lateral C-7

Collection Date: 3/18/2015 2:22:00 PM

Lab ID: 1503845-014

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 1:30:10 PM	18221
Surr: DNOP	110	63.5-128	%REC	1	3/19/2015 1:30:10 PM	18221
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 3:18:06 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST			•	Analys	t: cadg
Benzene	ND	0.030	mg/Kg	1	3/19/2015 11:40:28 AN	1 R24920
Toluene	ND	0.030	mg/Kg	1	3/19/2015 11:40:28 AM	R24920
Ethylbenzene	ND	0.030	mg/Kg	1	3/19/2015 11:40:28 AN	1 R24920
Xylenes, Total	ND	0.060	mg/Kg	1	3/19/2015 11:40:28 AN	1 R24920
Surr: 1,2-Dichloroethane-d4	105	70-130	%REC	1	3/19/2015 11:40:28 AM	1 R24920
Surr: 4-Bromofluorobenzene	105	70-130	%REC	1	3/19/2015 11:40:28 AM	1 R24920
Surr: Dibromofluoromethane	107	70-130	%REC	1	3/19/2015 11:40:28 AN	1 R24920
Surr: Toluene-d8	96.0	70-130	%REC	1	3/19/2015 11:40:28 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	3/19/2015 11:40:28 AN	R24920
Surr: BFB	111	67.4-150	%REC	1	3/19/2015 11:40:28 AN	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-28 NW Wall

Project: Lateral C-7

Collection Date: 3/18/2015 2:25:00 PM

Lab ID: 1503845-015

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 1:51:33 PM	18221
Surr: DNOP	、 113	63.5-128	%REC	1	3/19/2015 1:51:33 PM	18221
EPA METHOD 300.0: ANIONS	•				Analys	t: LGT
Chloride	51	30	mg/Kg	20	3/19/2015 3:30:30 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.034	mg/Kg	1	3/19/2015 12:09:18 PM	1 R24920
Toluene	ND	0.034	mg/Kg	1	3/19/2015 12:09:18 PM	1 R24920
Ethylbenzene	ND	0.034	mg/Kg	1	3/19/2015 12:09:18 PM	R24920
Xylenes, Total	ND	0.068	mg/Kg	1	3/19/2015 12:09:18 PM	R24920
Surr: 1,2-Dichloroethane-d4	103	70-130	%REC	1	3/19/2015 12:09:18 PM	R24920
Surr: 4-Bromofluorobenzene	101	70-130	%REC	1	3/19/2015 12:09:18 PM	1 R24920
Surr: Dibromofluoromethane	106	70-130	%REC	1	3/19/2015 12:09:18 PM	1 R24920
Surr: Toluene-d8	93.0	70-130	%REC	1	3/19/2015 12:09:18 PM	1 R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	3/19/2015 12:09:18 PM	1 R24920
Surr: BFB	110	67.4-150	%REC	1	3/19/2015 12:09:18 PM	1 R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-29 NW Wall 2

Project: Lateral C-7

Collection Date: 3/18/2015 2:28:00 PM

Lab ID: 1503845-016

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/19/2015 2:13:13 PM	18221
Surr: DNOP	108	63.5-128	%REC	1	3/19/2015 2:13:13 PM	18221
EPA METHOD 300.0: ANIONS			•		Analyst	LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 3:42:55 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	cadg
Benzene	ND	0.036	mg/Kg	1	3/19/2015 12:38:02 PM	R24920
Toluene	, ND	0.036	mg/Kg	1	3/19/2015 12:38:02 PM	R24920
Ethylbenzene	ND	0.036	mg/Kg	1	3/19/2015 12:38:02 PM	R24920
Xylenes, Total	ND	0.072	mg/Kg	1	3/19/2015 12:38:02 PM	R24920
Surr: 1,2-Dichloroethane-d4	99.4	70-130	%REC	1	3/19/2015 12:38:02 PM	R24920
Surr: 4-Bromofluorobenzene	97.7	70-130	%REC	1	3/19/2015 12:38:02 PM	R24920
Surr: Dibromofluoromethane	103	70-130	%REC	1	3/19/2015 12:38:02 PM	R24920
Surr: Toluene-d8	92.4	70-130	%REC	1	3/19/2015 12:38:02 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	cadg
Gasoline Range Organics (GRO)	, ND	3.6	mg/Kg	1	3/19/2015 12:38:02 PM	R24920
Surr: BFB	104	67.4-150	%REC	1	3/19/2015 12:38:02 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-30 NW Wall 3

Project: Lateral C-7

Collection Date: 3/18/2015 2:31:00 PM

Lab ID: 1503845-017

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 2:34:36 PM	18221
Surr: DNOP	110	63.5-128	%REC	1	3/19/2015 2:34:36 PM	18221
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 3:55:20 PM	18226
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.045	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Toluene	ND	0.045	mg/Kg `	1	3/19/2015 1:06:49 PM	R24920
Ethylbenzene	ND	0.045	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Xylenes, Total	ND ·	0.089	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Surr: 1,2-Dichloroethane-d4	98.3	70-130	%REC	1	3/19/2015 1:06:49 PM	R24920
Surr: 4-Bromofluorobenzene	94.3	70-130	%REC	1	3/19/2015 1:06:49 PM	R24920
Surr: Dibromofluoromethane	102	70-130	%REC	1	3/19/2015 1:06:49 PM	R24920
Surr: Toluene-d8	93.6	70-130	%REC	1	3/19/2015 1:06:49 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	3/19/2015 1:06:49 PM	R24920
Surr: BFB	104	67.4-150	%REC	1	3/19/2015 1:06:49 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-31 SW Wall

Project: Lateral C-7

Collection Date: 3/18/2015 2:34:00 PM

Lab ID: 1503845-018

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS			_	Analyst	: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2015 12:56:58 PM	18221
Surr: DNOP	113	63.5-128	%REC	1	3/19/2015 12:56:58 PM	18221
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 4:32:34 PM	18230
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst	cadg
Benzene	ND	0.032	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Toluene	ND	0.032	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Ethylbenzene	ND	0.032	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Xylenes, Total	ND	0.065	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Surr: 1,2-Dichloroethane-d4	98.4	70-130	%REC	1	3/19/2015 1:35:34 PM	R24920
Surr: 4-Bromofluorobenzene	93.1	70-130	%REC	1	3/19/2015 1:35:34 PM	R24920
Surr: Dibromofluoromethane	104	70-130	%REC	1	3/19/2015 1:35:34 PM	R24920
Surr: Toluene-d8	89.5	70-130	%REC	1	3/19/2015 1:35:34 PM	R24920
EPA METHOD 8015D MOD: GASOLI	NE RANGE				Analyst	cadg
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	3/19/2015 1:35:34 PM	R24920
Surr: BFB	101	67.4-150	%REC	1	3/19/2015 1:35:34 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-32 SW Wall 2

Project: Lateral C-7

Collection Date: 3/18/2015 2:37:00 PM

Lab ID: 1503845-019

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 1:24:03 PM	18221
Surr: DNOP	116	63.5-128	%REC	1	3/19/2015 1:24:03 PM	18221
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 4:44:58 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	cadg
Benzene	ND	0.046	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Toluene	ND	0.046	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Ethylbenzene	ND	0.046	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Xylenes, Total	ND.	0.093	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Surr: 1,2-Dichloroethane-d4	97.6	70-130	%REC	1	3/19/2015 2:04:20 PM	R24920
Surr: 4-Bromofluorobenzene	95.2	70-130	%REC	1	3/19/2015 2:04:20 PM	R24920
Surr: Dibromofluoromethane	103	70-130	%REC	1	3/19/2015 2:04:20 PM	R24920
Surr: Toluene-d8	93.1	70-130	%REC	1	3/19/2015 2:04:20 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: cadg
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/19/2015 2:04:20 PM	R24920
Surr: BFB	106	67.4-150	%REC	1	3/19/2015 2:04:20 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O .RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503845

Date Reported: 3/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-33 SW Wall 3

Project: Lateral C-7

Collection Date: 3/18/2015 2:40:00 PM

Lab ID: 1503845-020

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS			· · · · · · · · · · · · · · · · · · ·	Analys	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/19/2015 1:51:18 PM	18221
Surr: DNOP	115	63.5-128	%REC	1	3/19/2015 1:51:18 PM	18221
EPA METHOD 300.0: ANIONS					Analys	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 4:57:23 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	: cadg
Benzene	ND	0.034	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Toluene	ND	0.034	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Ethylbenzene	ND	0.034	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Xylenes, Total	ND	0.067	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Surr: 1,2-Dichloroethane-d4	102	70-130	%REC	1	3/19/2015 2:33:15 PM	R24920
Surr: 4-Bromofluorobenzene	90.8	70-130	%REC	1	3/19/2015 2:33:15 PM	R24920
Surr: Dibromofluoromethane	106	70-130	%REC	1	3/19/2015 2:33:15 PM	R24920
Surr: Toluene-d8	90.6	70-130	%REC	1	3/19/2015 2:33:15 PM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys:	cadg
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	3/19/2015 2:33:15 PM	R24920
Surr: BFB	110	67.4-150	%REC	1	3/19/2015 2:33:15 PM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Prep Date: 3/19/2015

Analyte

Lateral C-7

Sample ID MB-18226	SampType: MBLK	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 18226	RunNo: 24944	•	
Prep Date: 3/19/2015	Analysis Date: 3/19/2015	SeqNo: 735228	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-18226	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 18226	RunNo: 24944		
Prep Date: 3/19/2015	Analysis Date: 3/19/2015	SeqNo: 735229	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	15 1.5 15.00	0 96.7 90	110	
Sample ID MB-18230	SampType: MBLK	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 18230	RunNo: 24944		

Analyte	Result	PQL	SPK value	SPK Ret vai	%REC	LowLimit	HighLimit	%RPD	RPDLIMIT	Qual	
Chloride	ND	1.5									
Sample ID LCS-18230	SampTy	/pe: LC	s	Tes	tCode: El	PA Method	300.0: Anion	S			_
Client ID: LCSS	Batch	ID: 18	230	F	RunNo: 2	4944					
Prep Date: 3/19/2015	Analysis Da	ate: 3/	19/2015	S	SeqNo: 7	35258	Units: mg/K	g			

SeqNo: 735257

%REC

LowLimit

Units: mg/Kg

HighLimit

%RPD

RPDLimit

Chloride 14 1.5 15.00 0 92.5 90 110

SPK value SPK Ref Val

Analysis Date: 3/19/2015

PQL

Result

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

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- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project

		-7 									
Sample ID	MB-18221	SampT	pe: ME	BLK	Test	Code: EF	A Method	8015D: Diese	el Range C	rganics	
Client ID:	PBS	Batch	ID: 18	221	R	tunNo: 24	1910		-		
Prep Date:	3/19/2015	Analysis Da	ate: 3/	19/2015	S	eqNo: 73	34182	Units: mg/K	g		
Analyte		Result		SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	organics (DRO)	ND	10	10.00		07.4	60.5	400			
Surr: DNOP		9.7		10.00		97.4	63.5	128			
Sample ID	LCS-18221	SampT	/pe: LC	s	Tes	tCode: EF	PA Method	8015D: Diese	el Range C	rganics	
Client ID:	LCSS	Batch	ID: 18	221	F	RunNo: 24	1910				
Prep Date:	3/19/2015	Analysis D	ate: 3/	19/2015	S	SeqNo: 73	34183	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
)iesel Range O	rganics (DRO)	50	10	50.00	0	101	67.8	130			
Surr: DNOP		4.9		5.000		97.4	63.5	128			
Sample ID	MB-18201	SampT	/pe: M E	BLK	Tes	tCode: EF	PA Method	8015D: Diese	el Range C	rganics	
Client ID:	PBS	Batch	ID: 18	201	F	RunNo: 24	1 912			,	
Prep Date:	3/18/2015	Analysis D	ate: 3/	19/2015	S	SeqNo: 73	34292	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		12		10.00		124	63.5	128			
Sample ID	MB-18211	SampT	ype: Mi	BLK	Tes	tCode: EF	PA Method	8015D: Dies	el Range C)rganics	
Client ID:	PBS	Batch	ID: 18	211	RunNo: 24910						
Prep Date:	3/18/2015	Analysis D	ate: 3/	19/2015	5	SeqNo: 7	34296	Units: %RE	С		
		,									
Analyte	•	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte Surr: DNOP	•	•				%REC 95.6	LowLimit 63.5	HighLimit 128	%RPD	RPDLimit	Qual
Surr: DNOP	1503845-001AMS	Result	PQL	SPK value 10.00	SPK Ref Val	95.6	63.5				Qual
Surr: DNOP Sample ID	1503845-001AMS SC-14 N Wall	Result 9.6 SampT	PQL	SPK value 10.00	SPK Ref Val	95.6	63.5 PA Method	128			Qual
Surr: DNOP Sample ID Client ID:	SC-14 N Wall	Result 9.6 SampT	PQL ype: M\$	SPK value 10.00 S	SPK Ref Val	95.6 tCode: EF	63.5 PA Method 4912	128	el Range C		Qual
Surr: DNOP Sample ID	SC-14 N Wall	Result 9.6 SampT Batch	PQL ype: M\$	SPK value 10.00 S 221 /19/2015	SPK Ref Val	95.6 tCode: EF RunNo: 2 4	63.5 PA Method 4912	128 8015D: Dies e	el Range C		Qual
Surr: DNOP Sample ID Client ID: Prep Date: Analyte	SC-14 N Wall	Result 9.6 SampT Batch Analysis D	PQL ype: Ms ID: 18 ate: 3/	SPK value 10.00 S 221 /19/2015	SPK Ref Val Tes F	95.6 tCode: EF RunNo: 24 SeqNo: 7:	63.5 PA Method 4912 34579	128 8015D: Diese Units: mg/k	el Range C)rganics	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte	SC-14 N Wall 3/19/2015	Result 9.6 SampT Batch Analysis D Result	PQL ype: M3 ID: 18 ate: 3	SPK value 10.00 S 221 /19/2015 SPK value	SPK Ref Val Tes F S SPK Ref Val	95.6 tCode: EF RunNo: 24 SeqNo: 73	63.5 PA Method 4912 34579 LowLimit	128 8015D: Diese Units: mg/K HighLimit	el Range C)rganics	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP	SC-14 N Wall 3/19/2015	Result 9.6 SampT Batch Analysis D Result 52 5.3	PQL ype: M3 ID: 18 ate: 3/ PQL 10	SPK value 10.00 S 221 /19/2015 SPK value 50.15 5.015	SPK Ref Val Tes F S SPK Ref Val 0	95.6 tCode: EF RunNo: 24 SeqNo: 7; %REC 104 106	63.5 PA Method 4912 34579 LowLimit 29.2 63.5	128 8015D: Diese Units: mg/k HighLimit 176	el Range C	Organics RPDLimit	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP	SC-14 N Wall 3/19/2015 Drganics (DRO)	Result 9.6 SampT Batch Analysis D Result 52 5.3 SampT	PQL ype: M3 ID: 18 ate: 3/ PQL 10	SPK value 10.00 S 221 /19/2015 SPK value 50.15 5.015	SPK Ref Val Tes F SPK Ref Val 0	95.6 tCode: EF RunNo: 24 SeqNo: 7; %REC 104 106	63.5 PA Method 4912 34579 LowLimit 29.2 63.5 PA Method	128 8015D: Diese Units: mg/k HighLimit 176 128	el Range C	Organics RPDLimit	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP Sample ID Client ID:	SC-14 N Wall 3/19/2015 Organics (DRO) 1503845-001AMSI	Result 9.6 SampT Batch Analysis D Result 52 5.3 SampT	PQL ype: M3 ID: 18 ate: 3/ PQL 10 ype: M3 ID: 18	SPK value 10.00 8 221 /19/2015 SPK value 50.15 5.015	SPK Ref Val Tes SPK Ref Val 0 Tes	95.6 tCode: EF RunNo: 24 SeqNo: 7: %REC 104 106 tCode: EF	63.5 PA Method 4912 34579 LowLimit 29.2 63.5 PA Method 4912	128 8015D: Diese Units: mg/k HighLimit 176 128	el Range C	Organics RPDLimit	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP Sample ID Client ID: Prep Date:	SC-14 N Wall 3/19/2015 Organics (DRO) 1503845-001AMSI SC-14 N Wall	Result 9.6 SampT Batch Analysis D Result 52 5.3 SampT Batch	PQL ype: M3 ID: 18 ate: 3 PQL 10 ype: M5 ID: 18 ate: 3.	SPK value 10.00 S 221 /19/2015 SPK value 50.15 5.015 SD 221 /19/2015	SPK Ref Val Tes SPK Ref Val 0 Tes	95.6 tCode: EF RunNo: 24 SeqNo: 73 %REC 104 106 tCode: EF RunNo: 24 SeqNo: 73	63.5 PA Method 4912 34579 LowLimit 29.2 63.5 PA Method 4912 34670	128 8015D: Diese Units: mg/k HighLimit 176 128 8015D: Diese	el Range C	RPDLimit Organics	
Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP Sample ID Client ID: Prep Date: Analyte	SC-14 N Wall 3/19/2015 Organics (DRO) 1503845-001AMSI SC-14 N Wall	Result 9.6 SampT Batch Analysis D Result 52 5.3 SampT Batch Analysis D	PQL ype: M3 ID: 18 ate: 3 PQL 10 ype: M5 ID: 18 ate: 3.	SPK value 10.00 S 221 /19/2015 SPK value 50.15 5.015 SD	SPK Ref Val Tes SPK Ref Val 0 Tes	95.6 tCode: EF RunNo: 24 SeqNo: 73 %REC 104 106 tCode: EF RunNo: 24 SeqNo: 73	63.5 PA Method 4912 34579 LowLimit 29.2 63.5 PA Method 4912 34670	128 8015D: Diese Units: mg/k HighLimit 176 128 8015D: Diese Units: mg/k	el Range C %RPD el Range C	RPDLimit Organics	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 22 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845 23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID LCS-18211 SampType: LCS TestCode: EPA Method 8015D: Diesel Range Organics Client ID: LCSS Batch ID: 18211 RunNo: 24910 Prep Date: 3/18/2015 Analysis Date: 3/19/2015 SeqNo: 734679 Units: %REC Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Surr: DNOP 4.6 5.000

TestCode: EPA Method 8015D: Diesel Range Organics Sample ID LCS-18201 SampType: LCS Client ID: LCSS Batch ID: 18201 RunNo: 24912 Prep Date: 3/18/2015 Analysis Date: 3/19/2015 SeqNo: 734682 Units: %REC SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual 128

Sur: DNOP 5.0 5.000 99.7 63.5

Qualifiers:

Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

Analyte detected below quantitation limits J

O RSD is greater than RSDlimit

RPD outside accepted recovery limits R

Spike Recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Н

ND Not Detected at the Reporting Limit Page 23 of 30

Sample pH Not In Range

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:	Lateral C-	7									
Sample ID	MB-18213	SampTyp	e: ME	BLK	Test	Code: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	PBS	Batch I	D: 18 2	213	R	RunNo: 2	4929				
Prep Date:	3/18/2015	Analysis Dat	e: 3/	19/2015	S	SeqNo: 7	34777	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	ND	5.0			•					
Surr: BFB		930		1000		93.4	80	120			
Sample ID	LCS-18213	SampTyp	e: LC	s	Test	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	LCSS	Batch I	D: 18	213	R	RunNo: 2	24929				
Prep Date:	3/18/2015	Analysis Dat	te: 3/	19/2015	S	SeqNo: 7	34778	Units: mg/k	(g		
Analyte	W- W		PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	27 1000	5.0	25.00 1000	0	107 100	64 80	130 120			
Sull. DFD		1000		1000		100		120			
Sample ID	B24	SampTy			Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	PBS	Batch I	D: R2	4929	F	RunNo: 2	24929				
Prep Date:		Analysis Dat	te: 3/	19/2015	S	SeqNo: 7	34794	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	e Organics (GRO)	ND 940	5.0	1000		93.8	80	120			
=				**************************************							
,	2.5UG GRO LCS	SampTy						8015D: Gaso	oline Rang	е	
Client ID:	LC55	Batch I				RunNo: 2		Limito: mam/h	<i>(</i>		
Prep Date:		Analysis Da				SeqNo: 7		Units: mg/k	•		
Analyte Gasoline Band	je Organics (GRO)	Result 24	PQL 5.0	SPK value 25.00	SPK Ref Val	%REC 97.8	LowLimit 64	HighLimit 130	%RPD	RPDLimit	Qual
Surr: BFB	je organics (orto)	1000	5.0	1000	v	101	80	120			
Sample IO	1503845-004AMS	SampTy	20: MS	•	Toc	tCodo: E	DA Mathad	8015D: Gaso	olina Pana		
•	SC-17 N Deep Bas					RunNo: 2		ou isb. Gast	Jille Kang	,c	
Prep Date:	OO-17 N Deep Bas	Analysis Da				SeqNo: 7		Units: mg/k	(a		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
,	je Organics (GRO)	16	3.3	16.71	0	92.8	47.9	144	70111111	. a Dennit	- Studi
Surr: BFB		660		668.4		99.2	80	120			
Sample ID	1503845-004AMSE) SampTy	pe: MS	SD	Tes	tCode: E	PA Method	8015D: Gase	oline Rang	je	
Client ID:	SC-17 N Deep Bas	e Batch I	D: R2	4929	F	RunNo: 2	24929				
Prep Date:		Analysis Da	te: 3/	19/2015	5	SeqNo: 7	734798	Units: mg/l	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 24 of 30

- P Sample pH Not In Range
- Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 1503845-004AM	SD Samp1	Гуре: М \$	SD	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: SC-17 N Deep B	ase Batc	h ID: R2	4929	F	RunNo: 2	4929				
Prep Date:	Analysis [Date: 3/	19/2015	S	SeqNo: 7	34798	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.3	16.71	0	107	47.9	144	14.4	29.9	
Surr: BEB	670		668.4		101	80	120	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 25 of 30

P Sample pH Not In Range

Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18213	Samp	Type: ME	BLK	Test	Code: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: 18:	213	F	RunNo: 2	4929				
Prep Date: 3/18/2015	Analysis [Date: 3/	19/2015	S	SeqNo: 7	34804	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050		•						
Ethylbenzene	ND	0.050								
Xylenes, Total	· ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			
Sample ID LCS-18213	Samp	Type: LC	:S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: 18 :	213	F	RunNo: 2	4929				
Prep Date: 3/18/2015	Analysis [Date: 3/	19/2015	S	SeqNo: 7	34805	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	76.6	128			
Toluene	0.98	0.050	1.000	0	97.8	75	124			
Ethylbenzene	0.97	0.050	1.000	0	96.8	79.5	126			
Xylenes, Total	2.9	0.10	3.000	0	96.7	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			
Sample ID B24	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		····
Client ID: PBS	Batc	h ID: R2	4929	F	RunNo: 2	4929				
Prep Date:	Analysis [Date: 3/	19/2015	S	SeqNo: 7	34825	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1	······	1.000		107	80	120		_	
Sample ID 100NG BTEX LC	S Samp	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
	Batch ID: R24929			RunNo: 24929						

_			
Ou	ali	ifi	ers

Prep Date:

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

Value exceeds Maximum Contaminant Level.

Analysis Date: 3/19/2015

PQL

0.050

0.050

0.050

0.10

SPK value SPK Ref Val

1.000

1.000

1.000

3.000

1.000

Result

1.1

1.1

1.1

3.3

1.1

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

SeqNo: 734826

LowLimit

76.6

79.5

78.8

80

75

%REC

0

0

0

0

115

110

110

109

112

Units: mg/Kg

128

124

126

124

120

%RPD

RPDLimit

Qual

HighLimit

Page 26 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 1503845-007AMS	Samp1	Гуре: М	3	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: SC-20 S Back	Batcl	h ID: R2	4929	F	RunNo: 2	4929				
Prep Date:	Analysis Date: 3/19/2015			SeqNo: 734829			Units: mg/k	(g		•
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.37	0.032	0.6414	0.005728	56.3	69.2	126			S
Toluene	0.34	0.032	0.6414	0.006138	52.5	65.6	128			S
Ethylbenzene	0.35	0.032	0.6414	0	54.5	65.5	138	•		S
Xylenes, Total	1.0	0.064	1.924	0	53.4	63	139			S
Surr: 4-Bromofluorobenzene	0.72		0.6414		112	80	120			

Sample ID 1503845-007AM	SD Samp	Гуре: М\$	SD	TestCode: EPA Method 8021B: Volatiles						
Client ID: SC-20 S Back	Batc	h ID: R2	4929	F	RunNo: 2	4929				
Prep Date:	Analysis [Date: 3/	19/2015	8	SeqNo: 7	34830	Ünits: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.73	0.032	0.6414	0.005728	114	69.2	126	66.7	18.5	R
Toluene	0.69	0.032	0.6414	0.006138	106	65.6	128	66.6	20.6	R
Ethylbenzene	0.69	0.032	0.6414	0	107	65.5	138	65.1	20.1	R
Xylenes, Total	2.0	0.064	1.924	0	107	63	139	66.4	21.1	R
Surr: 4-Bromofluorobenzene	0.75		0.6414		116	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 27 of 30

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project: Later	al C-7									
Sample ID 5mL rb	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: PBS	Batch	h ID: R2	4920	F	RunNo: 2	4920				
Prep Date:	Analysis D	Date: 3/	19/2015		SeqNo: 7		Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene ·	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	. ND	0.10		•						
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.2	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130	·		
Sample ID 100ng Ics	SampT	Гуре: LC	S	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: LCSS	Batcl	h ID: R2	4920	F	RunNo: 2	4920				
Prep Date:	Analysis [Date: 3/	19/2015	S	SeqNo: 7	34836	Units: mg/k	(g		
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70	130			
Toluene	1.1	0.050	1.000	0	109	70	130			•
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.0	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			
Sample ID 1503845-013a	a ms Samp1	Гуре: М .	6	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: SC-26 E Wall	S Batcl	h ID: R2	4920	F	RunNo: 2	4920				
Prep Date:	Analysis E	Date: 3/	19/2015	\$	SeqNo: 7	34841	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.035	0.7047	0	111	57.8	132			
Toluene	0.75	0.035	0.7047	. 0	106	54.8	139			
Surr: 1,2-Dichloroethane-d4	0.34		0.3524		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.34	•	0.3524		97.8	70	130			
Surr: Dibromofluoromethane	0.35		0.3524		100	70	130			
Surr: Toluene-d8	0.33		0.3524		94.2	70	130		· · · · · · · · · · · · · · · · · · ·	
Sample ID 1503845-013	a msd Samp1	Туре: М\$	SD	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: SC-26 E Wall	S Batc	h ID: R2	4920	F	RunNo: 2	4920				
Prep Date:	Analysis [Date: 3/	20/2015	5	SeqNo: 7	34842	Units: mg/h	(g		
Analyte	Result	PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.035	0.7047	0	107	57.8	132	4.12	20	
Toluene	0.71	0.035	0.7047	0	101	54.8	139	4.92	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- RSD is greater than RSDlimit 0
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit

Page 28 of 30

- P Sample pH Not In Range
- RLReporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845

23-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 1503845-013a msc	t SampT	уре: М	SD	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: SC-26 E Wall S	Batch	n ID: R2	24920	F	RunNo: 2	4920				
Prep Date:	Analysis D	Date: 3/	/20/2015	S	eqNo: 7	34842	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.34		0.3524		97.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.35		0.3524		100	70	130	0	0	
Surr: Dibromofluoromethane	0.37		0.3524		104	70	130	0	0	
Surr: Toluene-d8	0.33		0.3524		94.2	70	130	ο`	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1503845 23-Mar-15

Client:

Souder, Miller and Associates

Project:	Lateral C	-7									
Sample ID	5mL rb	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	PBS	Batch	ID: R2	4920	F	RunNo: 24	4920				
Prep Date:		Analysis D	ate: 3/	19/2015	S	SeqNo: 7	34871	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sasoline Rang	e Organics (GRO)	ND	5.0	11 0 000							
Surr: BFB		490		500.0	- 1007	97.6	67.4	150		_	
Sample ID	2.5ug gro lcs	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	LCSS	Batch	ID: R2	4920	F	RunNo: 24	4920				
Prep Date:		Analysis D	ate: 3/	19/2015	S	SeqNo: 7	34872	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	25	5.0	25.00	0	100	79.9	135			
Surr: BFB		500		500.0		99.7	67.4	150		_	
Sample ID	1503845-014a ms	SampT	ype: MS	3	Tes	tCode: El	A Method	8015D Mod:	Gasoline	Range	
Client ID:	SC-27 E Wall S2	Batch	1D: R2	4920	F	RunNo: 2	4920				
Prep Date:		Analysis D	ate: 3/	20/2015	S	SeqNo: 7	34876	Units: mg/F	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	14	3.0	15.11	0	93.3	65.2	156			
Surr: BFB		330		302.1		108	67.4	150			
Sample ID	1503845-014a ms	d SampT	ype: MS	SD	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	SC-27 E Wall S2	Batch	ID: R2	4920	F	RunNo: 2	4920				
Prep Date:		Analysis D	ate: 3/	20/2015	5	SeqNo: 7	34877	Units: mg/l	K g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	e Organics (GRO)	13	3.0	15.11	0	89.3	65.2	156	4.34	20	
Surr: BFB		320		302.1		107	67.4	150	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- o RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit

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- Sample pH Not In Range P
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

(EL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM	Work Order Number	1503845		RcptNo:	1
Received by/date: A5 03 /19//5				400	
Logged By: Anne Thorne	3/19/2015 8:05:00 AM	 	ane A.	_	
Completed By: Anne Thorne	3/19/2015		aone Am		
Reviewed By:	mater 100		UML SIL		
Chain of Custody	<u> </u>				
Custody seals intact on sample bottles?		Yes 🗌	No 🗆	Not Present	
2. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
3. How was the sample delivered?		Courier			
<u>Log In</u>					
4. Was an attempt made to cool the samp	les?	Yes 🗹	No 🗌	NA 🗌	
5. Were all samples received at a tempera	ture of >0° C to 6.0°C	Yes 🔽	No 🗆	NA 🗌	
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient sample volume for indicated to	est(s)?	Yes 🗹	No 🗌		
8. Are samples (except VOA and ONG) pro	operly preserved?	Yes 🗹	No 🗆		
9. Was preservative added to bottles?	•	Yes 🗌	No 🗹	NA \square	
10. VOA vials have zero headspace?		Yes 🗌	No 🗆	No VOA Vials ☑	
11. Were any sample containers received b	roken?	Yes 🗆	No 🗹	# of preserved	
40.5			,,	bottles checked for pH:	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody	v)	Yes 🗹	No □	· · · · · · · · · · · · · · · · · · ·	or >12 unless noted)
13. Are matrices correctly identified on Chai	n of Custody?	Yes 🗸	No 🗆	Adjusted?	
14. Is it clear what analyses were requested	1?	Yes 🗹	No 🗌		
15. Were all holding times able to be met? (If no, notify customer for authorization.)	1	Yes 🗹	No 📙	Checked by:	
,, . <u></u> ,					
Special Handling (if applicable)			•		
16. Was client notified of all discrepancies v	vith this order?	Yes 🗌	· No 🗆	NA 🗹	
Person Notified:	Date				
By Whom:	Via:	eMail	Phone Fax	_ In Person	
Regarding:	م بالمحافظة في التي بالمنافقة المافقة بمافقة في المحافظة في المحافظة المافقة المافقة المافقة المافقة المحافظة المافقة المافقة المحافظة المافقة	A state Casta to the first casta	نگاه ۱۹۱۸ و در این این این و مثلث ۱۹۱۸ و در راید	ومنظين تروطمة ومند بساوت بالروامة	C
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17. Additional remarks:					
18. Cooler Information	State - August 1975 - August 19 Junior 1975 - 1975 - 1975 - 1975	gruppe generalis et et et et e.g.	o in Agenta, ja o okazetta tita	•	
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Date	Time	Matrix	Sample Request ID	ype and "	Preservative Type	HEAL NO	BTEX)+ THEE	BTEX + MTBE	TPH 8015B	TPH (Method	PAH's (8310 o	RCRA 8 Metals	Anions-(F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	300.0		Air Bubbles (Y or N)
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1503850

March 25, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401

TEL: (505) 325-5667

FAX

RE: Lateral C-7

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/19/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-34 250-300' W Bar ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:43:00 PM

Lab ID: 1503850-001

Matrix: SOIL Received Date: 3

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	IGE ORGANICS	·			Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/20/2015 8:27:48 AM	18222
Surr: DNOP	115	63.5-128	%REC	1	3/20/2015 8:27:48 AM	18222
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	: cadg
Benzene	ND	0.048	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Toluene	ND	0.048	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Ethylbenzene	ND	0.048	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Xylenes, Total	ND	0.097	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Surr: 1,2-Dichloroethane-d4	97.6	70-130	%REC	1	3/20/2015 1:34:51 AM	R24920
Surr: 4-Bromofluorobenzene	95.3	70-130	%REC	1	3/20/2015 1:34:51 AM	R24920
Surr: Dibromofluoromethane	103	70-130	%REC	1	3/20/2015 1:34:51 AM	R24920
Surr: Toluene-d8	91.9	70-130	%REC	1	3/20/2015 1:34:51 AM	R24920
EPA METHOD 8015D MOD: GASOI	LINE RANGE				Analyst	: cadg
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/20/2015 1:34:51 AM	R24920
Surr: BFB	104	67.4-150	%REC	1	3/20/2015 1:34:51 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-35 200-250" W Bar ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:46:00 PM

Lab ID: 1503850-002

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	14	9.8	mg/Kg	1	3/20/2015 9:32:22 AM	18222
Surr: DNOP	118	63.5-128	%REC	1	3/20/2015 9:32:22 AM	18222
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	100	30	mg/Kg	20	3/19/2015 5:59:26 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	cadg
Benzene	ND	0.045	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Toluene	ND	0.045	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Ethylbenzene	ND	0.045	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Xylenes, Total	ND	0.089	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Surr: 1,2-Dichloroethane-d4	98.4	70-130	%REC	1	3/20/2015 2:03:39 AM	R24920
Surr: 4-Bromofluorobenzene	96.2	70-130	%REC	1	3/20/2015 2:03:39 AM	R24920
Surr: Dibromofluoromethane	102	70-130	%REC	1	3/20/2015 2:03:39 AM	R24920
Surr: Toluene-d8	92.9	70-130	%REC	1	3/20/2015 2:03:39 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	:: cadg
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	3/20/2015 2:03:39 AM	R24920
Surr: BFB	114	67.4-150	%REC	1	3/20/2015 2:03:39 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 12

- P Sample pH Not in Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-36 150-200' W Bar Ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:49:00 PM

Lab ID: 1503850-003

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/20/2015 9:53:49 AM	18222
Surr: DNOP	107	63.5-128	%REC	1	3/20/2015 9:53:49 AM	18222
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.058	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Toluene	ND	0.058	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Ethylbenzene	ND	0.058	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Xylenes, Total	ND	0.12	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Surr: 1,2-Dichloroethane-d4	96.3	70-130	%REC	1	3/20/2015 2:32:28 AM	R24920
Surr: 4-Bromofluorobenzene	96.0	70-130	%REC	1	3/20/2015 2:32:28 AM	R24920
Surr: Dibromofluoromethane	100	70-130	%REC	1	3/20/2015 2:32:28 AM	R24920
Surr: Toluene-d8	89.2	70-130	%REC	1	3/20/2015 2:32:28 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	5.8	mg/Kg	1	3/20/2015 2:32:28 AM	R24920
Surr: BFB	101	67.4-150	%REC	1	3/20/2015 2:32:28 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-37 100-150' W Bar Ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:52:00 PM

Lab ID: 1503850-004 Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	11	10	mg/Kg	1	3/20/2015 12:23:20 PM	1 18222
Surr: DNOP	106	63.5-128	%REC	1	3/20/2015 12:23:20 PM	1 18222
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	33	30	mg/Kg	20	3/19/2015 6:11:51 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene ·	ND	0.039	mg/Kg	1	3/20/2015 3:01:16 AM	R24920
Toluene	ND	0.039	mg/Kg	1	3/20/2015 3:01:16 AM	R24920
Ethylbenzene	ND	0.039	mg/Kg	1	3/20/2015 3:01:16 AM	R24920
Xylenes, Total	ND	0.079	mg/Kg	1	3/20/2015 3:01:16 AM	R24920
Surr: 1,2-Dichloroethane-d4	102	70-130	%REC	1	3/20/2015 3:01:16 AM	R24920
Surr: 4-Bromofluorobenzene	95.9	70-130	%REC	1	3/20/2015 3:01:16 AM	R24920
Surr: Dibromofluoromethane	106	70-130	%REC	1	3/20/2015 3:01:16 AM	R24920
Surr: Toluene-d8	92.2	70-130	%REC	1	3/20/2015 3:01:16 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	3/20/2015 3:01:16 AM	R24920
Surr: BFB	106	67.4-150	%REC	1	3/20/2015 3:01:16 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- Analyte detected below quantitation limits
- o RSD is greater than RSDlimit
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 4 of 12

- Sample pH Not In Range P
- Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-38 50-100' W Bar Ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:55:00 PM

Lab ID: 1503850-005

Matrix: SOIL Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	IGE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	41	9.8	mg/Kg	1	3/20/2015 9:22:36 AM	18222
Surr: DNOP	114	63.5-128	%REC	1	3/20/2015 9:22:36 AM	18222
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.043	mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Toluene	0.047	0.043	mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Ethylbenzene	ND	0.043	mg/Kg	1	· 3/20/2015 3:30:05 AM	R24920
Xylenes, Total	ND	0.086	mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Surr: 1,2-Dichloroethane-d4	95.4	70-130	%REC	1	3/20/2015 3:30:05 AM	R24920
Surr: 4-Bromofluorobenzene	98.7	70-130	%REC	1	3/20/2015 3:30:05 AM	R24920
Surr: Dibromofluoromethane	99.1	70-130	%REC	1	3/20/2015 3:30:05 AM	R24920
Surr: Toluene-d8	89.0	70-130	%REC	1	3/20/2015 3:30:05 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	ti cadg
Gasoline Range Organics (GRO)	11	4.3	mg/Kg	1	3/20/2015 3:30:05 AM	R24920
Surr: BFB	109	67.4-150	%REC	1	3/20/2015 3:30:05 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 5 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-39 0-50' W Bar Ditch

Project: Lateral C-7

Collection Date: 3/18/2015 2:58:00 PM

Lab ID: 1503850-006

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	3/20/2015 9:49:48 AM	18222
Surr: DNOP	116	63.5-128	%REC	1	3/20/2015 9:49:48 AM	18222
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	3/19/2015 6:24:15 PM	18230
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	: cadg
Benzene	ND	0.037	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Toluene	ND	0.037	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Ethylbenzene	ND	0.037	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Xylenes, Total	ND	0.074	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Surr: 1,2-Dichloroethane-d4	102	70-130	%REC	1	3/20/2015 3:58:53 AM	R24920
Surr: 4-Bromofluorobenzene	98.8	70-130	%REC	1	3/20/2015 3:58:53 AM	R24920
Surr: Dibromofluoromethane	104	70-130	%REC	1	3/20/2015 3:58:53 AM	R24920
Surr: Toluene-d8	91.1	70-130	%REC	1	3/20/2015 3:58:53 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	cadg
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	3/20/2015 3:58:53 AM	R24920
Surr: BFB	108	67.4-150	%REC	1	3/20/2015 3:58:53 AM	R24920

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 6 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1503850

Date Reported: 3/25/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-40 Background

Project: Lateral C-7 Collection Date: 3/18/2015 3:01:00 PM

Lab ID: 1503850-007

Matrix: SOIL

Received Date: 3/19/2015 8:05:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/20/2015 10:16:54 AM	18222
Surr: DNOP	114	63.5-128	%REC	1	3/20/2015 10:16:54 AM	18222
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	ND	30	mg/Kg	20	3/24/2015 10:51:49 AM	18295
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: cadg
Benzene	ND	0.046	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Toluene	ND	0.046	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Ethylbenzene	ND	0.046	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Xylenes, Total	ND	0.091	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Surr: 1,2-Dichloroethane-d4	98.0	70-130	%REC	1	3/20/2015 4:27:37 AM	R24920
Surr: 4-Bromofluorobenzene	104	70-130	%REC	1	3/20/2015 4:27:37 AM	R24920
Surr: Dibromofluoromethane	101	70-130	%REC	1	3/20/2015 4:27:37 AM	R24920
Surr: Toluene-d8	88.0	70-130	%REC	1	3/20/2015 4:27:37 AM	R24920
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: cadg
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/20/2015 4:27:37 AM	R24920
Surr: BFB	110	67.4-150	%REC	1	3/20/2015 4:27:37 AM	R24920

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 7 of 12

- P Sample pH Not In Range
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

25-Mar-15

1503850

WO#:

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18230

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Batch ID: 18230

RunNo: 24944

Prep Date: 3/19/2015

Analysis Date: 3/19/2015

1.5

SeqNo: 735257

HighLimit

Analyte

PQL

Units: mg/Kg

RPDLimit %RPD

Qual

Chloride

Result ND

Sample ID LCS-18230

SampType: LCS Client ID: LCSS Batch ID: 18230 TestCode: EPA Method 300.0: Anions RunNo: 24944

SPK value SPK Ref Val %REC LowLimit

0

Analysis Date: 3/19/2015

SeqNo: 735258

Units: mg/Kg

%RPD

Analyte Chloride

Prep Date: 3/19/2015

Result POL

14

SPK value SPK Ref Val %REC LowLimit

92.5

HighLimit

110

RPDLimit

3/24/2015

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Qual

Sample ID MB-18295 Client ID: PBS

Batch ID: 18295

Analysis Date: 3/24/2015

1.5

RunNo: 25049

Units: mg/Kg

Analyte

Prep Date:

Result ND

Result

14

PQL

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** Qual

Chloride

1.5

15.00

TestCode: EPA Method 300.0: Anions

SeqNo: 739028

90

Prep Date:

Client ID: LCSS

3/24/2015

Sample ID LCS-18295

Batch ID: 18295

SampType: LCS

RunNo: 25049 SeqNo: 739029

Units: mg/Kg

%RPD

RPDLimit Qual

Analyte Chloride

Analysis Date: 3/24/2015 **PQL**

1.5

SPK value SPK Ref Val 15.00

%REC

0

95.9

90

LowLimit

110

HighLimit

Qualifiers:

S

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

Spike Recovery outside accepted recovery limits

o RSD is greater than RSDlimit

RPD outside accepted recovery limits R

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND

Sample pH Not In Range Reporting Detection Limit RL

Not Detected at the Reporting Limit Page 8 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503850

25-Mar-15

Client:

Souder, Miller and Associates

Project: Lateral	I C-7			
Sample ID MB-18222	SampType: MBLK	TestCode: EPA Method	8015D: Diesel Range O	rganics
Client ID: PBS	Batch ID: 18222	RunNo: 24912		
Prep Date: 3/19/2015	Analysis Date: 3/19/2015	SeqNo: 734184	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Diesel Range Organics (DRO)	ND 10			
Surr: DNOP	11 10.00	110 63.5	128	
Sample ID LCS-18222	SampType: LCS	TestCode: EPA Method	8015D: Diesel Range O	rganics
Client ID: LCSS	Batch ID: 18222	RunNo: 24912		
Prep Date: 3/19/2015	Analysis Date: 3/19/2015	SeqNo: 734185	Units: mg/Kg	
Analyte .	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Diesel Range Organics (DRO)	53 10 50.00	0 107 67.8	130	
Surr: DNOP	4.9 5.000	98.5 63.5	128 .	
Sample ID MB-18200	SampType: MBLK	TestCode: EPA Method	8015D: Diesel Range O	rganics
Client ID: PBS	Batch ID: 18200	RunNo: 24912		
Prep Date: 3/18/2015	Analysis Date: 3/19/2015	SeqNo: 734189	Units: %REC	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: DNOP	11 10.00	108 63.5	128	
Sample ID LCS-18200	SampType: LCS	TestCode: EPA Method	8015D: Diesel Range O	rganics
Client ID: LCSS	Batch ID: 18200	RunNo: 24912		
Prep Date: 3/18/2015	Analysis Date: 3/19/2015	SeqNo: 734192	Units: %REC	
Analyte	Result - PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit . %RPD	RPDLimit Qual
Surr: DNOP	4.9 5.000	98.9 63.5	128	
Sample ID MB-18201	SampType: MBLK	TestCode: EPA Method	8015D: Diesel Range O	rganics
Client ID: PBS	Batch ID: 18201	RunNo: 24912		
Prep Date: 3/18/2015	Analysis Date: 3/19/2015	SeqNo: 734292	Units: %REC	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Sum: DNOP	12 10.00	. 124 63.5	128	
Sample ID LCS-18201	SampType: LCS	TestCode: EPA Method	8015D: Diesel Range O	rganics
Client ID: LCSS	Batch ID: 18201	RunNo: 24912		
Prep Date: 3/18/2015	Analysis Date: 3/19/2015	SeqNo: 734682	Units: %REC	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: DNOP	5.0 5.000	99.7 63.5	128	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- RSD is greater than RSDlimit o
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Sample pH Not In Range
- RL Reporting Detection Limit

Page 9 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503850

25-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 1503850-001AMS	SampT	уре: М\$	6	Tes	tCode: El	PA Method	8015D: Dies	el Range (Organics	
Client ID: SC-34 250-300' W	B Batch	n ID: 18	222	F	RunNo: 2	4910				
Prep Date: 3/19/2015	Analysis D	ate: 3/	20/2015	S	SeqNo: 7	35108	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.25	6.442	86.3	29.2	176			
Surr DNOP	5.3		5.025		106	63.5	128			

Sample ID 1503850-001AM	SD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8015D: Dies	el Range C	Organics	
Client ID: SC-34 250-300'	W B Batch	ID: 18	222	F	RunNo: 2	4910				
Prep Date: 3/19/2015	Analysis D	ate: 3/	20/2015	S	SeqNo: 7	3510 9	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.9	49.70	6.442	78.2	29.2	176	9.42	23	
Surr: DNOP	5.4		4.970		108	63.5	128	n	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 10 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#: 1

1503850

25-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 5mL rb	Samp	ype: ME	BLK	Test	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: PBS	Batcl	h ID: R2	4920	R	unNo: 24	4920					
Prep Date:	Analysis [Date: 3/	19/2015	S	eqNo: 7	34835	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.050									
Toluene	ND	0.050						•			
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10					•				
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.0	70	130				
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130				
Surr: Dibromofluoromethane	0.48		0.5000		96.2	70	130				
Surr: Toluene-d8	0.50		0.5000		101	70	130				
Sample ID 100ng Ics	Samp	Гуре: LC	s	Tes	Code: El	PA Method	8260B: Vola	tiles Short	List		
Client ID: LCSS	Batc	h ID: R2	4920	F	lunNo: 2	4920					
Prep Date:	Analysis [Date: 3/	19/2015	8	eqNo: 7	34836	Units: mg/k	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.050	1.000	0	107	70	130				
Toluene	1.1	0.050	1.000	0	109	70	130				
	0.49		0.5000		97.6	70	130				
Surr: 1,2-Dichloroethane-d4											
Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130				
	0.51 0.49		0.5000 0.5000		102 98.0	70 70	130 130				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 11 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503850

25-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID 5mL rb	Samp	уре: М	BLK	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: PBS	Batc	h ID: R2	24920	F	RunNo: 2	4920			•	
Prep Date:	Analysis [Date: 3/	/19/2015	5	SeqNo: 7	34871	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	490		500.0	. <u>.</u>	97.6	67.4	150			
Sample ID 2.5ug gro lcs	Samp	ype: LC	s	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batc	h ID: R2	24920	F	RunNo: 2	4920				
Prep Date:	Analysis [Date: 3/	/19/2015	\$	SeqNo: 7	34872	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	79.9	135			
Surr: BFB	500		500.0		99.7	67.4	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM	Work Order Number: 150	3850		RcptNo	1
Received by/date: A U3/19/15					
Logged By: Anne Thorne 3	3/19/2015 8:05:00 AM		anne Am	_	
Completed By: Anne Thorne 3	1/19/2015		ane Il-	_	
Reviewed-By:	0				
Chain of Custody	2H41.		· · · · · · · · · · · · · · · · · · ·	***************************************	
1. Custody seals intact on sample bottles?	Ye	s 🗌	No 🗆	Not Present	
2. Is Chain of Custody complete?	Ye	s 🗸	No 🗌	Not Present	
3. How was the sample delivered?	<u>Co</u>	urier			
<u>Log In</u>					
4. Was an attempt made to cool the samples?	Ye	s 🗸	No 🗌	NA 🗌	
5. Were all samples received at a temperature of	of >0° C to 6.0°C Yes	· 🔽	No 🗆	na 🗆	
6. Sample(s) in proper container(s)?	Ye	s 🗸	No 🗀		
7. Sufficient sample volume for indicated test(s)?	? Ye	s 🗹	No 🗆		
8. Are samples (except VOA and ONG) properly	preserved? Ye	s 🔽	No 🗆		
9. Was preservative added to bottles?	Ye	s 🗌	No 🗹	na 🗌	
10.VOA vials have zero headspace?	Ye	s 🗌	No 🗆	No VOA Vials	
11. Were any sample containers received broken	? Ye	s 🗆	No 🗹	# of preserved	
10			\Box	bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Ye	s 🗸	No 🗀	for pH: (<2	or >12 unless noted)
13. Are matrices correctly identified on Chain of C	Custody? Ye	s 🗹	No 🗆	Adjusted?	·
14, Is it clear what analyses were requested?	Ye	s 🔽	No 🗌		
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Ye	s Y	No 🗌	Checked by:	
Special Handling (if applicable) 16. Was client notified of all discrepancies with the	is order? Ye	s 🗆	No 🗆	NA 🗹	
Person Notified:	Date				
By Whom:	· · · · · · · · · · · · · · · · · · ·	/lail [Phone Fax	In Person	
Regarding:	The same of the sa				
Client Instructions:	The same of the sa		The fall and a server 1		
17. Additional remarks:	and the second s	····			<u> </u>
18. Cooler Information Cooler No Temp C Condition Sea	I Intact Seal No Seal	Date	Signed By		
1 1.0 Good Yes]	

C	hain-	of-Cu	stody Record	Turn-Around	Time:	l Davis					AI		:AI3	/TI	5 0		ME	NT	ΓAI	I
:lient:	5M	A] □ Standard	☑ Rush	Next Day	-											VI.		
				Project Name							vww.l								,	
lailing	Address:	401	« Broadway	1630	Lateral	C-7		490)1 H		is NE		!				7109			
- Form	, refor		87401	Project #:			ľ	Те	i. 50	5-34	5-397	5	Fax	505	-345	-410	7			
			3 535	1 1)	20609						x.4 . L	Ána	lysis	Rec	ues				A CAP	
	r Fax#:	Steere	or. Mostalo soudsmile	Project Mana				(ý)	1				(4)							
	Package:		☐ Level 4 (Full Validation)	1 1	oc M	05 kal	(8021)	(Gas only)	RO / HARE)			OIMO	PO ₄ ,SC	PCB's			Salito			
vccred	itation			Sampler:	ブく			H	2	\rightleftharpoons		ž	Q Q	308			<u>_</u> 0			€
) NEL	AP.	□ Othe	er	On Ice.	VZ\Yes	□,No ····································		 	(g)	138	9 8	0/70	هُ ا	8/8		₹	7	,		or $^{\circ}$
] EDD	(Type)			Sample Tem	perature	1.0:33		MTBE	19/	9d 4	g		Ž	Side	F	<u>:</u>				<u>≻</u>
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALING.	BIEX A	BTEX + MI	TPH 8015B	TPH (Method 418.1)	EDB (Method 504.1)	RCRA & Metals	Anions (E,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082 PCB'	8260B (VOA)	8270 (Semi-VOA)	300.0	1		Air Bubbles (Y or N)
-18	1443	Soil	5C-34 250-300 W Bar ditd	1402		-00	X		×				,							
	1446	١ ١	5c-35 200 - 250 difel)	-02	X		\propto								X			
	1449		56-36 W Box dileh			-03	\mathcal{N}		N											
1	1452		5c-36 (2) Bur ditch 5c-37 (25) Box Ditch			-ce4	X		X				1	<u> </u>			X		\top	
1	1455	. /	SC-37 west Bar Dit			-05	N		N								-			
	1458	V/	SC-38 wast Bar difed SC-39 wast Bar difed	1	1	-od	1		X								X			
	1501	V	5C-40 Background		V	-007	d		X							130/	X			
			0	4																
			·																	
Date:	Time:	Relinquish	ned by:	Received by:		Date Time	Ren	narks	s: :	LNO	ice	E	مهم	2:14	<u>ر</u> _					
5- 1B	19.00	9	-25m	Muster	Walter	3/18/15 /900	Plea	بحد		ر وم	\			•						
Date:	Time:	Relinguish	ned by:	Received by:	1 / 4	Date Time 18/19/15] کر	55C.	æ.	! 12091	, se@	500	lem	نالمد	s - C2	> /~				
8/15	12005	M	mitted to Half Environmental may be sub-	contracted to other a	coredited laboratori	<u> </u>	noccit	-ility /	\ \nv.ou	b contr	acted d	to will	he clea	rly not	ated or	the a	nalviic	a) reno	rt	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 31, 2015

Steve Moskal Souder, Miller and Associates 401 W. Broadway Farmington, NM 87401

TEL: (505) 325-5667 FAX (505) 327-1496

RE: Lateral C-7 OrderNo.: 1503B68

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/25/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1503B68

Date Reported: 3/31/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1 @ 1'

Project: Lateral C-7

Collection Date: 3/24/2015 9:30:00 AM

Lab ID: 1503B68-001

Matrix: SOIL Rec

Received Date: 3/25/2015 7:55:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS				Analy	st: JME
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/27/2015 3:56:33 PM	1 18351
Surr: DNOP	105	63.5-128	%REC	1	3/27/2015 3:56:33 PM	1 18351
EPA METHOD 8015D: GASOLINE RA	ANGE				· Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/28/2015 11:09:23 A	M 18355
Surr: BFB	89.9	80-120	%REC	1	3/28/2015 11:09:23 A	M 18355
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.049	mg/Kg	1	3/28/2015 11:09:23 A	M 18355
Toluene	ND	0.049	mg/Kg	1	3/28/2015 11:09:23 A	M 18355
Ethylbenzene	ND	0.049	mg/Kg	1	3/28/2015 11:09:23 A	M 18355
Xylenes, Total	ND	0.097	mg/Kg	1	3/28/2015 11:09:23 A	M 18355
Surr: 4-Bromofluorobenzene	100	80-120	%REC	1	3/28/2015 11:09:23 A	M 18355
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	39	30	mg/Kg	20	3/30/2015 3:05:50 PM	18413

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503B68 31-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18413

SampType: MBLK

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID:

PBS

Batch ID: 18413

PQL

RunNo: 25153

3/30/2015 Prep Date:

Analysis Date: 3/30/2015

SeqNo: 744362

Units: mg/Kg

%RPD

HighLimit

RPDLimit

Qual

Analyte Chloride

ND 1.5

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

SampType: LCS Batch ID: 18413

1.5

RunNo: 25153

Prep Date: 3/30/2015

Sample ID LCS-18413

Analysis Date: 3/30/2015

SeqNo: 744363

Units: mg/Kg

Analyte

PQL

%REC

HighLimit

RPDLimit

Result

15.00

SPK value SPK Ref Val

95.9

%RPD

Qual

Chloride

14

0

SPK value SPK Ref Val %REC

LowLimit 90

110

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 5

- P Sample pH Not In Range
- Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503B68

31-Mar-15

Client:

Souder, Miller and Associates

5.2

5.020

Project:

Lateral C-7

Project: Latera	I C-7		·						
Sample ID MB-18351	SampType: MI	BLK	· Tes	tCode: EF	PA Method	8015D: Diese	ei Range (Organics	
Client ID: PBS	Batch ID: 18	351	F	RunNo: 2	5073				
Prep Date: 3/26/2015	Analysis Date: 3	/27/2015	8	SeqNo: 74	42950	Units: mg/K	ζg		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 10								
Surr: DNOP	9.7	10.00		97.5	63.5	128			
Sample ID LCS-18351	SampType: LC	s	Tes	tCode: EF	PA Method	8015D: Dies	el Range (Organics	
Client ID: LCSS	Batch ID: 18	351	F	RunNo: 2	5073				
Prep Date: 3/26/2015	Analysis Date: 3	/27/2015	8	SeqNo: 74	42951	Units: mg/K	ζg		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48 10	50.00	0	95.2	67.8	130		•	
Surr: DNOP	4.9	5.000		97.7	63.5	128			
Sample ID 1503B68-001A	MS SampType: M	S	Tes	tCode: EF	PA Method	8015D: Dies	el Range (Organics	
Client ID: SC-1 @ 1'	Batch ID: 18	351	F	RunNo: 2	5073				
Prep Date: 3/26/2015	Analysis Date: 3	/27/2015	5	SeqNo: 74	42952	Units: mg/k	ζg		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52 10	49.85	0	105	29.2	176			
Surr: DNOP	5.2	4.985		103	63.5	128			
Sample ID 1503B68-001A	MSD SampType: M	SD	Tes	tCode: El	PA Method	8015D: Dies	el Range (Organics	
Client ID: SC-1 @ 1'	Batch ID: 18	351	F	RunNo: 2	5073				
Prep Date: 3/26/2015	Analysis Date: 3	/27/2015	5	SeqNo: 74	42953	Units: mg/k	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50 10	50.20	0	99.9	29.2	176	4.54	23	

Qualifiers:

Surr: DNOP

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

104

63.5

128

0

0

Page 3 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503B68

31-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18355	Samp	Гуре: МЕ	BLK	Tes	TestCode: EPA Method 8015D: Gasoline Range					
Client ID: PBS	Batc	h ID: 18 :	355	F	RunNo: 25	5124				
Prep Date: 3/26/2015	Analysis D	Date: 3/	27/2015	S	SeqNo: 74	42102	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0		-	-					
Surr: BFB	910		1000		91.2	80	120			
Sample ID LCS-18355	Samp	Type: LC	s	Tes	tCode: EF	PA Method	8015D: Gaso	oline Rang	e	
Client ID: LCSS	Batc	h ID: 18	355	F	RunNo: 2	5124				
Prep Date: 3/26/2015	Analysis [Date: 3/	27/2015	\$	SeqNo: 74	42103	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Allalyte										
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.5	64	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 4 of 5

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1503B68

31-Mar-15

Client:

Souder, Miller and Associates

Project:

Lateral C-7

Sample ID MB-18355	Samp1	ype: M	BLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batc	h ID: 18	355	F	RunNo: 2	5124						
Prep Date: 3/26/2015	Analysis [Date: 3/	27/2015	5	SeqNo: 7	42123	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	0.050										
Toluene	ND	0.050										
Ethylbenzene	ND	0.050										
Xylenes, Total	ND	0.10										
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120					
Sample ID LCS-18355	Samp	Гуре: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles	<u>.:</u>			
Client ID: 1 CSS Batch ID: 18355				RunNo: 25124								

Sample ID LCS-18355	SampT	Type: LC	s	Tes								
Client ID: LCSS	Batcl	h ID: 18	355	F	RunNo: 2							
Prep Date: 3/26/2015	Analysis E	Date: 3/	27/2015	S	SeqNo: 7	42124	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.1	0.050	1.000	0	110	76.6	128					
Toluene	1.1	0.050	1.000	0	106	75	124					
Ethylbenzene	1.0	0.050	1.000	0	104	79.5	126					
Xylenes, Total	3.1	0.10	3.000	0	103	78.8	124					
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120					

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDIimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 5 of 5



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	SMA-FARM	V	/ork Order Number:	1503E	68			Rcpi	No: 1	
Received by/dat	e: (1)	$\gamma \sim 03)$	25/15							
Logged By:	Ashley Gall	egos 3/2	5/2015 7:55:00 AM			A				
Completed By:	Ashley Gall	egos 3/2	5/2015 5:58:39 PM			A				
Reviewed By:	0	<i>a</i> '''	3/24/19			V				
Chain of Cus	tody	×	17 " 11 /	•						
1. Custody sea		mple bottles?		Yes		No		Not Present		
2. Is Chain of 0				Yes		No		Not Present		
3. How was the	e sample delive	ered?		Cour	<u>ier</u>					
Log In										
4. Was an atte	empt made to c	cool the samples?		Yes		No		NA		
5. Were all sar	mptes received	at a temperature of	>0° C to 6.0°C	Yes		No		NA		
6. Sample(s) i	in proper conta	iner(s)?		Yes		No				
7. Sufficient sa	ample volume f	or indicated test(s)?		Yes		No				
8. Are samples	s (except VOA	and ONG) properly pr	reserved?	Yes		No				
9. Was preser	vative added to	bottles?		Yes		No		NA		
10.VOA vials h	ave zero head:	space?		Yes		No		No VOA Vials		
		ers received broken?		Yes		No	•			
11, 11010 411, 0	origin contains	sis received bronom.					!	# of preserved bottles checked		
12. Does paper	work match bo	ttle labels?		Yes		No		for pH:		4 25
	epancies on ch				(A)	No.		Adjuste	(<2 or >12 unless	noted)
		itified on Chain of Cus	stody?	Yes Yes		No.				
14, Is it clear will 15. Were all hol				Yes		No		Checked	by:	
	customer for a			103		,,,,		'	•	
Special Hand	dling (if app	licable)								
	•	screpancies with this	order?	Yes		No		NA		
Perso	n Notified:	والمقاوم والمراسطة فالمسابقة والمسابقة والمنافضة الكارسية والأمية المتاريخ	Date	ydadiidamaka danida	بتنتثثمانا وكفرير هوزي	at a series source at the series	es anno anno			
By W	hom:	isk den i dig a replikt stadigt fragten profes i gentler stadistratur sårende staden synderendend	Via:	□ eM	ail [Phone [Fax	[] In Person	ì	
Rega	rding:	ek adia ani bada adibin 1901 in indahir 1901 in bada adia 1901 in bada adia 1901 in bada adia 1901 in bada adi	·			gage "y important i de de de de de de de de de de de de de	عبائد فيترفيهم	هالاجداد معسسان للعثلثاتين للقلالاتية الفتر	Altranega.	
Client	Instructions:	and the state of the state of the state of the state of the state of the state of the state of the state of the	r dyd i'r yllaiddigoll y ffeld, y flygai ar ynau arrenn o'ir mae'i'r ran renniado ar ar	tivi i Shiri karkara dhan	<u> </u>	and the second section of the second	parin ingir diskera	والمرافع والمعارض والمعارض والمتاريخ والمتاريخ والمتاريخ والمتاركة	- reactions	
17. Additional	remarks:									
18. Cooler Inf	ormation									
Cooler		<u> </u>	Intact Seal No	Seal D	ate	Signed	Ву			
]1	1.7	Good Yes						1		

Clients					Turn-Around Time:					HALL ENVIRONMENTAL												
Client:	4	MA	-		Standard	☐ Rush				35										TO		,
					Project Name					1	'		w.ha						. 6.5		12 AP 19	
Mailing	Address	:401	s. Broade	Uasi	Later	J C-	7			4901	Haw								'109 _.			
7	armina	ton,	NM	07401	Project #:					Tel.	505-3	45-3	975	F	Fax	505-	-345	-410	7			
Phone		9:5	325 7]	N2060	29	3					4	Anal	yšis [,]	Req	ues	ť.				
email c				Soudwiller. 401					_	<u> </u>	(2)				(7)							
	Package:			(Full Validation)		ve Ma	skal		\$ (8021)	(Gas o	\ \		SIMS)		PO ₄ ,S(PCB's			Sales			
Accred	itation				Sampler:	,				표 (()		1			Ş	8082			- 0		i i	5
□ NEL	AP	☐ Othe	r		On Ice:		□ No			+ 6	138	8	8270	,,	ő			(A)	3			or A
	(Type)				Sample Tem			開業	8 4	l g	0 0	etak	Z	side	(A)	j-VC				>		
Date	Time	Matrix	Sample	e Request ID	Container Type and #	Preservative Type	HEAL NO. 1503BU) 8	BIEX+ MARKET THESS	BTEX + MTBE + TPH (Gas only)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	300.0			Air Bubbles (Y or N)
- 24	0930	Soil	56-1	e 1'	1 40z		-00	1 >	1)									X			_
								1		1			<u> </u>								1-1	
	 								+		+	+-	 	 						\dashv	+-+	
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Date:	Time: 1346 Time:	Relinguish Relinguish	- 25	M	Received by:	he ball	Date Time 3/24/15 132 Date Time	16	lem:	arks:	In	00i	cc		En	tr	D ('S	<u>ر</u>				
1/24/15/1944 Mothe Weder					10	0=	25/15 075	5		Je	532	Sp	م رمی	ave	-0	క లు	do	mik	-5- Ca	227		

OIL CONS. DIV DIST. 3

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

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

JUN 02 2015

Form C-141 Revised August 8, 2011

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

Santa Fe, NM 87505

Oil Conservation Division 1220 South St. Francis Dr.

		F	Releas	e Notific	ation	and C	orrective	Acti	on		
					OP	ERATO	₹	Þ	(Initia	Report 🗌	Final Report
Name of C	ompany: I	Enterprise I	ield Serv	vices LLC	(Contact: T	homas Long				
		ve, Farmin	gton, NM	87401			No. 505-599				
Facility Na	me: Trunk	3C			<u> </u>	Facility Ty	oe: Natural G	as Gat	hering l	Pipeline	
Surface Ov	vner: Priv a	ate		Mineral C	Owner:	Private			API N	lo.	
				LOCA	TION	OF REI	EASE				
Unit Letter B	Section 32	Township 29N	Range 12W	Feet from the 133	North Line	South	Feet from the 2293	East Line	West	County San Juan	
			L:	atitude 36.6	89936	Longitud	le -108.1214	66			
						OF RELI					•
Type of Rele	ease: Natur	al Gas and N	latural Ga	·	<u> </u>		f Release Unki	nown	Volume	Recovered: None	· ·
		pected inter				Date and	Hour of Occurr 12:45 p.m.		Date ar	nd Hour of Discove	
Was Immed	iate Notice	_		5-4		If YES, To					
		∐ Ye:	s 🗌 No	│ │ Not Red	quired						
By Whom?						Date and					
Was a Wate	rcourse Re		□ Yes	⊠ No		If YES, V	olume Impactin	g the W	atercours	se	
			, 50								•
If a Waterco				<u> </u>							
a routine pip	eline patrol	. The line wa	is isolated	, blown down,	depres	surized, loc	technicians dis ked out and tag ernal corrosion	gged ou	d a pipeli t. A smal	ne release on Trur I area of soil staini	ik 3C during ng was
	mechanical									subsurface contan ntal contractor cor	
rules and reg which may e relieve the o ground wate	gulations all endanger pu perator of li er, surface w	l operators a iblic health o ability should rater, human	re required r the envired their oped health or	d to report and conment. The rations have for the environment	I/or file of accepta ailed to ent. In a	certain relea ance of a Ca adequately addition, NN	ase notification 141 report by t investigate and MOCD acceptan aws and/or regu	s and pe he NMC d remed nce of a ulations.	erform co CD mark liate cont C-141 re	and that pursuant or rective actions for ked as "Final Report amination that post opert does not relied NOIVISION	releases ort" does not e a threat to
Printed Nam	Printed Name: Jon E. Fields Approved by Environmental Specialist:										
Title: Directo	r, Environn	nental				Approval Da	nte: 6/9/15	5	<u>Expiratiò</u>	n/Date.	
E-mail Addre	ess:jefields(@eprod.com		·		Conditions of	of Approval:			Attached	
Date:	5-27-	2015		e: (713)381-66	584	,					
Attach Addit	tional Shee	ets If Neces	ssary		4	thics,	15 14151	763	3		4

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

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

Revised August 8, 2011

Form C-141

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

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

·		F	Releas	e Notifica	tion	and C	orrective	Actio	on			
						ERATO		\boxtimes	Initial I	Report Final Report		
		Enterprise I					nomas Long		···			
		ve, Farmin	gton, NM	87401			No. 505-599-2					
Facility Nar	me: Latera	al 10D-5	····		<u> </u>	-acility Typ	e: Natural Ga	s Gath	ering Pi	ipeline		
Surface Ov	vner: Nav a	ajo Tribe		Mineral O	wner:	r: Navajo Tribe API No.						
,				LOCA	TION	OF REL	EASE					
Unit Letter	Section	Township	Range	Feet from	North	South	Feet from	Eas	Vest	County		
L	12	26N	12W	the 2452	Line		the 195	Line		San Juan		
	<u> </u>	<u> </u>	Lat	itude <u>36.502</u>	164	 Longitud	e <u>108.071308</u>	· ·	OIL	CONS. DIV DIST. 3		
				NATU	JRE (OF RELI	EASE			JUN 1 5 2015		
Type of Rele	ease: Natur	al Gas and N	Natural Ga	s Liquids		Volume o	f Release: Unkn	own	Volume I	Recovered: None		
Source of R	elease: Sus	spected inter				5/28/2015	Hour of Occurre @ 5:00 p.m .	nce:		Hour of Discovery: 5 @ 5:30 p.m.		
Was Immed	iate Notice	Given?	s 🗌 No	⊠ Not Requ	uired	If YES, To	Whom?					
By Whom?						Date and						
Was a Wate	rcourse Re		□ V.a.a	⊠ Na		If YES, Vo	olume Impacting	the Wa	atercourse	,		
			Yes	⊠ No					•			
If a Waterco	urse was Ir	npacted, Des	scribe Full	y.*		l						
gas release	on the Late	ral 10D-5 pip	peline. The	e pipeline was i	solated	d, depressu		and ta		technician identified a natural Repairs of the pipeline		
		and Cleanu e evaluated o			area o	f soil stainin	g was observed	on the	ground st	urface. Subsurface impacts		
rules and re- which may e relieve the o ground wate	gulations al endanger pu perator of l er, surface v	l operators a ablic health c iability should vater, humar	ire required or the envir d their ope n health or	d to report and/ conment. The a rations have fa the environme	or file accepta iled to nt. In a	certain relea ance of a C- adequately addition, NN	ase notifications 141 report by th investigate and MOCD acceptan aws and/or regul	and pe e NMO remedi ce of a ations.	rform corr CD marke ate contai C-141 rep	nd that pursuant to NMOCD rective actions for releases ed as "Final Report" does not mination that pose a threat to port does not relieve the		
		• -		11			OIL CON:	SERV	<u>ATION</u>	DIVISION/		
Signature:	Signature: Ton E Frelch											
Printed Name: Jon E. Fields Approved by Environmental Specialist:												
Title: Directo	or, Environn	nental			/	Approval Da	ate: 6/22/15	E	Expiration	Date:		
E-mail Addre			l 		(Conditions o	of Approval:			Attached		
	10-2			e: (713)381-66								
Attach Addi	tional She	ets If Neces	ssary		4	EACS	1517	35	006	3		

OIL CONS. DIV DIST. 3

<u>District I</u> 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

State of New Mexico Energy Minerals and Natural Resources

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

JUN **26** 2015 Revised August 8, 2011

Form C-141

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

				ease Notific	cation	i anu C		CUON		~
						OPERA?	ГOR	[Initia	al Report 🛭 🔯 Final Re
		illiams Four					lsey Christians	en		
Address: 18 Facility Nar), Bloomfiel	d, NM 8	37413		Telephone N Facility Typ	No.: (505) 632-	4606		
		реппе			· · · · · · · · · · · · · · · · · · ·	гасину тур	be: Pipeline			
Surface Ow	ner: BLM			Mineral C	Owner		<u></u>		API No) .
				LOCA	ATION	N OF REI	LEASE			
Unit Letter F	Section 28	Township 27N	Range 10W	Feet from the	North	/South Line	Feet from the	County		
Г	20		1	Latitude <u>36.57</u>	/656° N	Longitud	e -107 90356°	 W		San Juan
						OF RELI		<u>···</u>		•
Type of Relea	ase: Natura	l Gas					Release: 1,247	MCF	Volume F	Recovered: 0 MCF Natural Ga
Source of Re	lease: Pinho	ole				Date and I-	Hour of Occurren			Hour of Discovery: at 11:30 AM MST
Was Immedia	ate Notice (If YES, To	Whom?	·	00/10/13	at 11,50 Phil HIGT
		\boxtimes	Yes _	No Not R	equired	Cory Smith Shari Ketc	h, NMOCD			
By Whom? I	Kelsey Chri	stiansen					Hour: 06/17/15 at	7:15 AM	MST	
Was a Water		hed?		7			olume Impacting			
				=						
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.	*						
		em and Reme	dial Actio		·					
Describe Cau Williams' per	ise of Probl	covered a pinh	ole leak o	n Taken.*				solated an	nd adjacen	t well heads were shut in whil
Describe Cau Williams' per repairs to the	rsonnel disc	covered a pinh	ole leak o proximatel	n Taken.* n the 809 Pipelin y 1,247 MCF of 1				solated an	nd adjacen	t well heads were shut in whil
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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

OIL CONS. DIV DIST. 3 State of New Mexico **Energy Minerals and Natural** Resources

JUN 0 1 2015

Form C-141 Revised August 8, 2011

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

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

		F	Releas	e Notifica	atior	n and C	orrective	Acti	on			
					OP	ERATOR	₹		Initial	Report	\boxtimes	Final Repor
		Enterprise f					nomas Long					
		ve, Farmin					No. 505-599-2					
Facility Na	me: Richa	rdson #3	Release	Site		Facility Typ	e: Natural Ga	s Gat	hering L	ine		
Surface Ov	vner: Nava	ajo		Mineral O	wner:	Navajo			API N	D .		
				LOCA	TION	OF REL	EASE		_			
Unit Letter N	Section 2	Township 27N	Range 13W	Feet from the 1313	North Line	South	Feet from the 2483	East/ Line	West	County San Jua	n	
		Latitude	36.60	0597		_ Longitu	de <u>-108.18</u>	922				
				NAT	URE	OF RELI	EASE					
Type of Rel	ease: Natur	al Gas and N	latural				f Release Unkn	own	Volume	Recovered	: Unkr	nown
Source of R	elease: Sus	spected Inter	nal Corros	sion		3/222015	Hour of Occurre @ 2:50 p.m.	nce:		d Hour of D 15 @ 3:50		ery:
Was Immed	liate Notice		s 🗌 No	Not Req	uired	If YES, To	Whom?					
By Whom?						Date and						
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Signature:	Jon	Tre	let -				OIL CON	SER	ATION	DIVISIO	<u>ON</u> /	19
Printed Nam	e: Jon E. F	ields				Approved by	y Environmental	Specia	alist:	and S.	X	
Title: Direct	or, Environn	nental				Approval Da	ate: 7/10/1	5	Expiration	n Date:		
E-mail Addr	E-mail Address:jefields@eprod.com Conditions of Approval: Attached											
Date:	5/27/201	5		ne: (713)381-66	84							
Attach Add	tronal/She	ets If Neces	ssary		=	HNCS	15 120	30	215)		

OIL CONS. DIV DIST. 3

JUN 0 1 2015

Richardson Com #3 Pipeline Release Report

Section 2, Township 27N, Range 13W N36.60057, W108.18922
San Juan County, New Mexico May 5, 2015

Prepared for:

Enterprise Products Operating, LLC 614 Reilly Avenue Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC 501 Airport Drive, Suite 205 Farmington, New Mexico 87401



Enterprise Products Operating, LLC Richardson Com #3 Pipeline Release Report

Prepared for:

Enterprise Products Operating, LLC 614 Reilly Avenue Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC 501 Airport Drive, Suite 205 Farmington, New Mexico 87401

Deborah Watson, PG, Geologist

Debrah With

Reviewed by:

Russell Knight, PG, Principal Hydrogeologist

May 5, 2015

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	Soil Sampling	
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	Closure and Limitations	

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Table 2 Soil Sampling Results-VOCs, Benzene, Total BTEX, and TPH

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Appendices

Appendix A Executed C-138 Solid Waste Acceptance Form

Appendix B Photograph Log

Appendix C Analytical Laboratory Report

1 Introduction

The Enterprise Products Operating, LLC (Enterprise) Richardson Com #3 pipeline release site is located in Unit Letter N, Section 2, Township 27N, Range 13W in San Juan County, New Mexico along County Road 7100. The pipeline release occurred at a ½-inch corrosion hole along the 4-inch well tie for the Richardson Com #3. The release was discovered on March 22, 2015.

On April 9, 2015, the point of release was identified and repaired. The release consisted of an unknown quantity of natural gas and condensate. Site work included repair of the leaking pipeline and excavation of hydrocarbon impacted soils on April 9, 2015.

A topographic map of the location is included as Figure 1 and an aerial site map is included as Figure 2.

2 Release Summary

Site Name - Richardson Com #3 Pipeline Release

Location - Unit Letter N (SE/SW), Section 2, Township 27N, Range 13W

Release Latitude/Longitude - N36.60057 and W108.18922, respectively

Land Jurisdiction - Navajo Nation Tribal Trust and Fee Land

Date Release Discovered - March 22, 2015

Agency Notification - New Mexico Oil Conservation Division (NMOCD)

Diameter of pipeline - 4-inch

Source of Release - ½ inch corrosion hole along 4-inch pipeline

Release Contents - natural gas and condensate

Release Volume - unknown

NMOCD Site Ranking – 10

Date of Rule Engineering, LLC (Rule) Field Work - April 9, 2015

Subcontractor(s) -- West States Energy Contractors, Inc. (West States)

Disposal Facility - Envirotech Land Farm (Permit #NM-01-011)

Amount of Contaminated Soil Excavated/Disposed - 140 cubic yards

3 NMOCD Site Ranking

In accordance with NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 10 (Table 1). Based on the ranking score of 10, action levels for remediated soils at the site are as follows: 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 mg/kg total petroleum hydrocarbons (TPH).

Depth to groundwater at the site was estimated to be greater than 100 feet below ground surface (bgs) based on the elevation differential (299 feet) between the release location and the wash in Gallegos Canyon (approximately 2.6 miles to the east).

A review was completed of the New Mexico Office of the State Engineer online New Mexico Water Rights Reporting System and no water wells were identified within a 1,000 feet radius of the location. The closest residence is located 2,250 feet east of the location.

Three unnamed washes, all of which ultimately drain to the West Draw, are located approximately 535 feet north-northeast, 559 feet northeast, and 579 feet southeast of the release location.

4 Field Activities

On March 22, 2015, Enterprise personnel responded to the report of a release along the 4-inch well tie for the Richardson Com #3. Enterprise, West States, and Rule personnel were onsite for the initiation of remediation activities on April 9, 2015. West States provided heavy equipment operation and excavated the petroleum impacted materials from within the release area. Rule personnel provided excavation oversight and conducted field screening during remediation activities. On April 9, 2015, based on visual observation and field screening results, the excavation was halted, and Rule personnel collected five confirmation samples (SC-1 through SC-5) from each of the sidewalls and base of the excavation. Repairs were made at the corrosion hole. Approximately 140 cubic yards of hydrocarbon impacted soils were removed from an area of excavation measuring approximately 32 feet x 8 feet x 14 (to 15) feet in depth. Figure 3 provides the locations and results of the soil samples collected.

A copy of the executed C-138 Solid Waste Acceptance Form is included in Appendix A. A photograph log is included in Appendix B.

5 Soil Sampling

Rule collected confirmation soil samples from the sidewalls and base of the excavation. Soil samples SC-1 through SC-5 were collected on April 9, 2015. Each confirmation soil sample (SC-1 through SC-5) is a representative composite of material collected from separate locations within the sample area.

Soil samples collected for laboratory analysis were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. All samples were analyzed for BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B and TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D. Laboratory analytical results are summarized in Table 2, and the analytical laboratory report is included in Appendix C.

A portion of each composite soil sample was also field screened for volatile organic compounds (VOCs). Field screening for VOC vapors was conducted with a photo-ionization detector (PID). Before beginning field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field screening results are summarized in Table 2.

6 Conclusions

The release of unknown quantity of natural gas and condensate occurred at a ½-inch corrosion hole along the 4-inch well tie for the Richardson Com #3. Remedial activities included excavation of 140 cubic yards of hydrocarbon impacted soils along the pipeline. Five confirmation soil samples were collected from the sidewalls and base of the excavation on April 9, 2015, for laboratory analysis of BTEX and TPH. The final excavation measured approximately 32 feet x 8 feet x 14 (to 15) feet in depth.

Laboratory analytical results for soil confirmation samples (SC-1 through SC-5) reported benzene and total BTEX concentrations below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. All soil confirmation samples reported TPH concentrations below the NMOCD action level of 1,000 mg/kg. Action levels are based on a NMOCD site ranking of 10.

Based on laboratory analytical results, no further work is recommended.

7 Closure and Limitations

This report has been prepared for the exclusive use of Enterprise and is subject to the terms, conditions and limitations stated in Rule's proposal, the report, and Rule's Service Agreement with Enterprise. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Tables

Table 1. NMOCD Site Ranking Determination Richardson Com #3 Pipeline Release San Juan County, New Mexico Enterprise Products Operating, LLC

Ranking Criteria	Ranking	Site-Based	Basis for Determination	Data
	Score	Ranking Score		Sources
Depth to Groundwater				
<50 feet	20		Elevation differential between location and wash in Gallegos Canyon east of the location is 299 feet.	NMOCD Online database,
50-99 feet	10	0	Location is at a higher elevation. Cathodic report for Navajo D #1 (30-045-06868) located 5,094 feet	Hugh Lake Quadrangle, Google Earth, and Visual
>100 feet	0		northeast of location and at a lower elevation reports depth to groundwater at 180 feet.	Inspection
Nellhead Protection Area				
<1,000 feet from a water source, or <200 feet from private domestic water source	20 (Yes) 0 (No)	0	No water source or recorded water wells within 1,000 feet radius of location.	NMOSE NMWRRS, Hugh Lake Quadrangle, Google Earth, and Visual Inspection
Distance to Surface Water Body				
<200 horizontal feet	20		Unnamed washes located at 535 feet north-northwest,	Hugh Lake Quadrangle,
200 to 1,000 horizontal feet	10	10	559 feet northeast, and 579 feet southeast of the location. Unnamed washes drain to the West Draw	Google Earth, and Visual
	0		and then to wash in Gallegos Canyon.	Inspection

Table 2. Soil Sampling Results-VOCs, Benzene, Total BTEX, and TPH Richardson Com #3 Pipeline Release San Juan County, New Mexico Enterprise Products Operating, LLC

			Sample Depth	VOCs (PID)	Benzene	Total BTEX	TPH-GRO	TPH-DRO	
Sample ID	Date	Location	(ft bgs)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)		
		NMC	OCD Action Levels*	100	10	50	1,0	000	
SC-1	Apr 09, 15	North Wall	0 to 15	49.5	<0.050	<0.249	<5.0	<9.6	
SC-2	Apr 09, 15	South Wall	0 to 15	91.4	<0.049	<0.245	<4.9	12	
SC-3	Apr 09, 15	East Wall	0 to 14	43.6	<0.049	<0.245	<4.9	<10	
SC-4	Apr 09, 15	West Wall	0 to 15	42.3	<0.047	<0.236	<4.7	14	
SC-5	Apr 09, 15	Base	14 to 15	2,562	<0.050	6.4	110	710	

Notes: VOCs - volatile organic compounds

PID - photo-ionization detector

ft bgs - feet below ground surface

ppm - parts per million

mg/kg - milligrams/kilograms

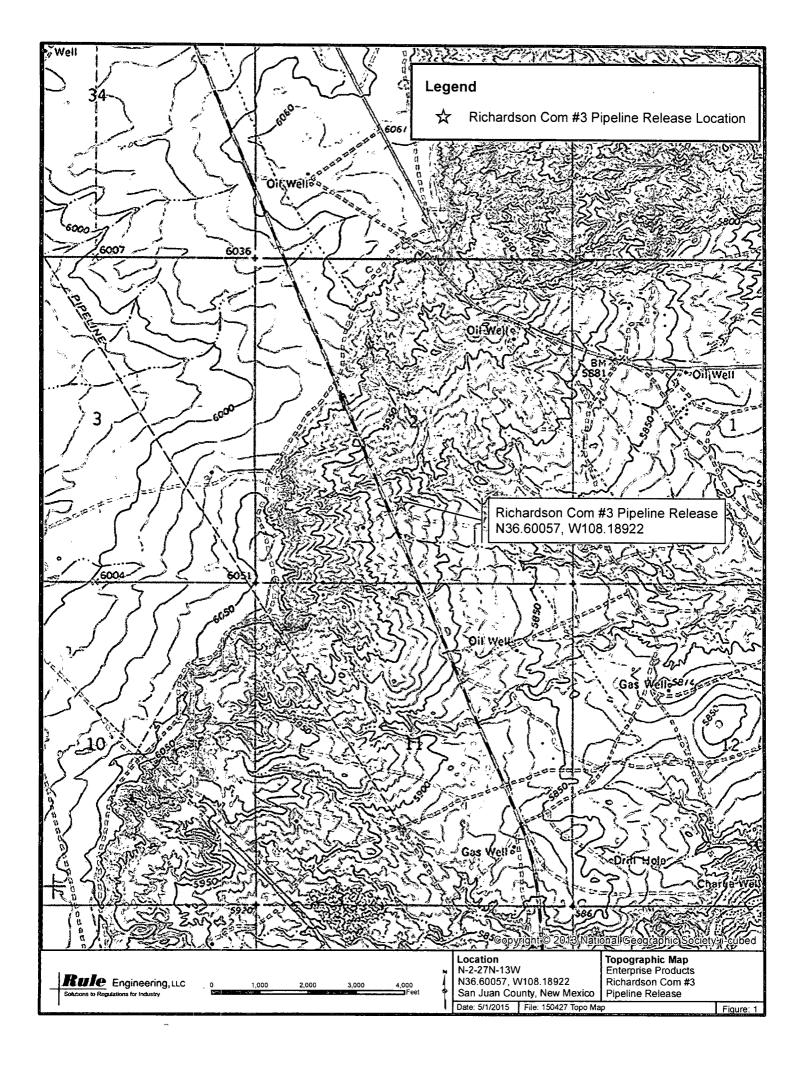
BTEX - benzene, toluene, ethylbenzene, and xylenes

TPH-GRO - total petroleum hydrocarbons-gasoline range organics

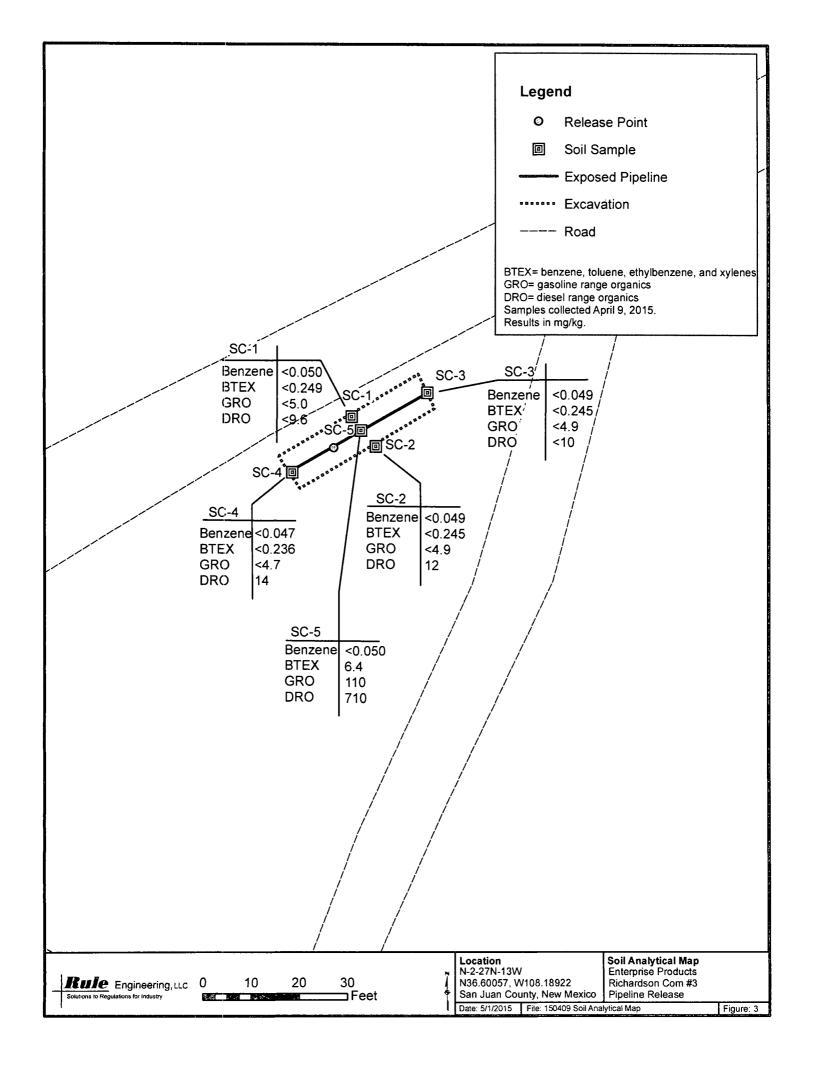
TPH-DRO - total petroleum hydrocarbons-diesel range organics

*NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (1993)

Figures







Appendix A Executed C-138 Solid Waste Acceptance Form

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

State of New Mexico Form C-138 Energy Minerals and Natural Resources 97857-070/ Revised August 1, 2011 Oil Conservation Division

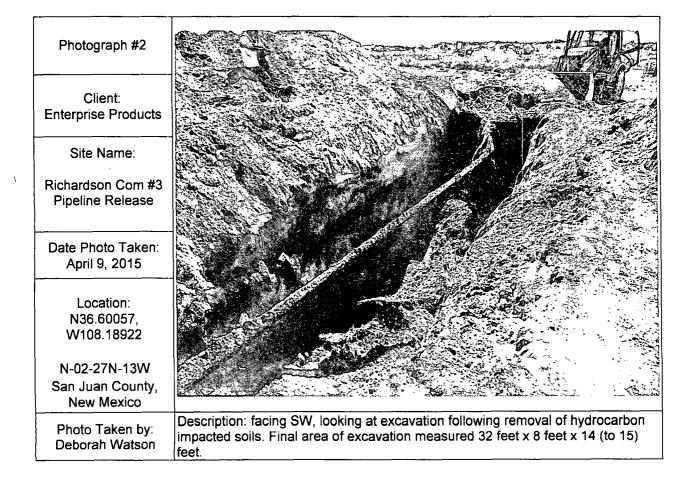
Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 *Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

	REQUEST FOR MITHOVALE TO MECENIT GODIE WASTE
	Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401
2.	Originating Site: Richardson #3 Pipeline Release Site April 2015
3.	Location of Material (Street Address, City, State or ULSTR): UL N Section 2 T27N, R13W; 36.600598, -108.189110
4. 5.	Source and Description of Waste: Hydrocarbon impacted soil associated with the remediation of a natural gas pipeline release. Estimated Volume50
5.	GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
cer	representative or authorized agent for <u>Enterprise Field Services, LLC</u> do hereby PRINT & SIGN NAME tify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 gulatory determination, the above described waste is: (Check the appropriate classification)
	RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency Monthly Weekly Per Load
	RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
	MSDS Information
	GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
	4-9-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to nerator Signature mplete the required testing/sign the Generator Waste Testing Certification.
rep hav	representative for Envirotech, Inc. do hereby certify that bresentative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples we been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 15.36 NMAC.
	Transporter: To be determined. HBL, Doug Foutz
N	D Permitted Surface Waste Management Facility lame and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011 .ddress of Facility: Hilltop, NM
Mei	thod of Treatment and/or Disposal: Evaporation Injection Treating Plant Landfarm Landfill Other
Wa	ste Acceptance Status: APPROVED DENIED (Must Be Maintained As Permanent, Record)
PRI	NT NAME: Kendry Rununs TITLE: Waste Coordinator DATE: 4/9/15
SIG	SINATURE: Surface Waste Management Facility Authorized Agent TELEPHONE NO.: (505) 632-0615

Appendix B Photograph Log

Photograph #1	
Client: Enterprise Products	Release
Site Name: Richardson Com #3 Pipeline Release	Location
Date Photo Taken: April 9, 2015	
Location: N36.60057, W108.18922	
N-02-27N-13W San Juan County, New Mexico	
Photo Taken by: Deborah Watson	Description: facing S, looking at excavation and exposed pipeline.



Appendix C Analytical Laboratory Reports



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

OrderNo.: 1504454

April 14, 2015

Deborah Watson Rule Engineering LLC 501 Airport Dr., Ste 205 Farmington, NM 87401 TEL: (505) 860-2712

FAX

RE: Enterprise Richardson Com #3 Pipeline Release

Dear Deborah Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 4/10/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1504454

Date Reported: 4/14/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-1

Project:

Enterprise Richardson Com #3 Pipeline

Collection Date: 4/9/2015 11:45:00 AM

Lab ID:

1504454-001

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	alyses Result			DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	-	-		Analys	t: JME	
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	4/13/2015 11:31:37 AM	1 18609
Surr: DNOP	105	63.5-128	%REC	1	4/13/2015 11:31:37 AM	1 18609
EPA METHOD 8015D: GASOLINE RA				Analys	t: NSB	
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	4/11/2015 2:04:51 PM	18615
Surr: BFB	90.6	80-120	%REC	1	4/11/2015 2:04:51 PM	18615
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.050	mg/Kg	1	4/11/2015 2:04:51 PM	18615
Toluene	ND	0.050	mg/Kg	1	4/11/2015 2:04:51 PM	18615
Ethylbenzene	ND	0.050	mg/Kg	1	4/11/2015 2:04:51 PM	18615
Xylenes, Total	ND	0.099	mg/Kg	1	4/11/2015 2:04:51 PM	18615
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	4/11/2015 2:04:51 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1504454

Date Reported: 4/14/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-2

Project:

Enterprise Richardson Com #3 Pipeline

Collection Date: 4/9/2015 1:00:00 PM

Lab ID:

1504454-002

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result RL Qual Units			DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analys	st: JME
Diesel Range Organics (DRO)	12	9.9	mg/Kg	1	4/13/2015 12:35:35 PI	M 18609
Surr: DNOP	97.1	63.5-128	%REC	1	4/13/2015 12:35:35 PI	M 18609
EPA METHOD 8015D: GASOLINE R.	ANGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	4/11/2015 3:30:57 PM	18615
Surr: BFB	90.7	80-120	%REC	1	4/11/2015 3:30:57 PM	18615
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.049	mg/Kg	1	4/11/2015 3:30:57 PM	18615
Toluene	ND	0.049	mg/Kg	1	4/11/2015 3:30:57 PM	18615
Ethylbenzene	ND	0.049	mg/Kg	1	4/11/2015 3:30:57 PM	18615
Xylenes, Total	ND	0.098	mg/Kg	1	4/11/2015 3:30:57 PM	18615
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	4/11/2015 3:30:57 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1504454

Date Reported: 4/14/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-3

Project:

Enterprise Richardson Com #3 Pipeline

Collection Date: 4/9/2015 1:35:00 PM

Lab ID:

1504454-003

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	Result RL Qual Unit		DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG		\		Analys	t: JME	
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	4/13/2015 12:57:09 PM	1 18609
Surr: DNOP	105	63.5-128	%REC	1	4/13/2015 12:57:09 PM	1 18609
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	4/11/2015 3:59:45 PM	18615
Surr: BFB	89.1	80-120	%REC	1	4/11/2015 3:59:45 PM	18615
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.049	mg/Kg	1	4/11/2015 3:59:45 PM	18615
Toluene	ND	0.049	mg/Kg	1	4/11/2015 3:59:45 PM	18615
Ethylbenzene	ND	0.049	mg/Kg	1	4/11/2015 3:59:45 PM	18615
Xylenes, Total	ND	0.098	mg/Kg	1	4/11/2015 3:59:45 PM	18615
Surr: 4-Bromofluorobenzene	101	80-120	%REC	1	4/11/2015 3:59:45 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1504454

Date Reported: 4/14/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project:

Enterprise Richardson Com #3 Pipeline

Collection Date: 4/9/2015 2:52:00 PM

Lab ID:

1504454-004

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result RL Qual Units			DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG				Analyst	: JME	
Diesel Range Organics (DRO)	14	9.6	mg/Kg	1	4/13/2015 1:18:24 PM	18609
Surr: DNOP	104	63.5-128	%REC	1	4/13/2015 1:18:24 PM	18609
EPA METHOD 8015D: GASOLINE RA				Analyst	NSB	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	4/11/2015 4:28:33 PM	18615
Surr: BFB	90.5	80-120	%REC	1	4/11/2015 4:28:33 PM	18615
EPA METHOD 8021B: VOLATILES					Analys	: NSB
Benzene	ND	0.047	mg/Kg	1	4/11/2015 4:28:33 PM	18615
Toluene	ND	0.047	mg/Kg	1	4/11/2015 4:28:33 PM	18615
Ethylbenzene	ND	0.047	mg/Kg	1	4/11/2015 4:28:33 PM	18615
Xylenes, Total	ND	0.095	mg/Kg	1	4/11/2015 4:28:33 PM	18615
Surr: 4-Bromofluorobenzene	101	80-120	%REC	1	4/11/2015 4:28:33 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 4 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1504454

Date Reported: 4/14/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-5

Project: Enterprise Richardson Com #3 Pipeline

Collection Date: 4/9/2015 1:48:00 PM

Lab ID: 1504454-005

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result RL Qual Units			Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG					Analysi	: JME	
Diesel Range Organics (DRO)	710	10		mg/Kg	1	4/13/2015 1:39:48 PM	18609
Surr: DNOP	103	63.5-128		%REC	1	4/13/2015 1:39:48 PM	18609
EPA METHOD 8015D: GASOLINE RA	ANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	110	5.0		mg/Kg	1	4/11/2015 4:57:17 PM	18615
Surr: BFB	640	80-120	s	%REC	1	4/11/2015 4:57:17 PM	18615
EPA METHOD 8021B: VOLATILES						Analys	: NSB
Benzene	ND	0.050		mg/Kg	1	4/11/2015 4:57:17 PM	18615
Toluene	0.54	0.050		mg/Kg	1	4/11/2015 4:57:17 PM	18615
Ethylbenzene	0.63	0.050		mg/Kg	1	4/11/2015 4:57:17 PM	18615
Xylenes, Total	5.2	0.10		mg/Kg	1	4/11/2015 4:57:17 PM	18615
Surr: 4-Bromofluorobenzene	155	80-120	S	%REC	1	4/11/2015 4:57:17 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 5 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1504454 14-Apr-15

Client:

Rule Engineering LLC

Project:	Enterprise	e Richardso	on Com	ı #3 Pipelin	e Release								
Sample ID	MB-18609	SampType: MBLK TestCode: EPA Method 8015D: Diesel Range Organics											
Client ID:	PBS	Batch	ID: 180	609	R	unNo: 2	5459						
Prep Date:	4/10/2015	Analysis Da	ate: 4/	13/2015	S	eqNo: 7	53898	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range C	Organics (DRO)	ND	10										
Surr: DNOP		12	_	10.00		123	63.5	128					
Sample ID	mple ID LCS-18609 SampType: LCS TestCode: EPA Method 8015D: Diesel Range Organics												
Client ID:	LCSS	Batch	ID: 18	609	F	RunNo: 2	5459						
Prep Date:	4/10/2015	Analysis D	ate: 4/	13/2015	S	SeqNo: 7	54238	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range C	Organics (DRO)	49	10	50.00	0	97.8	67.8	130					
Surr: DNOP		5.6		5.000		113	63.5	128					
Sample ID	1504454-001AMS	SampT	ype: MS	3	Tes	tCode: El	PA Method	8015D: Diese	el Range (Organics			
Client ID:	SC-1	Batch	ID: 18	609	F	RunNo: 2	5459						
Prep Date:	4/10/2015	Analysis D	ate: 4/	13/2015	8	SeqNo: 7	54259	Units: mg/K	(g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range (Organics (DRO)	50	10	50.81	0	98.6	29.2	176					
Surr: DNOP		5.9		5.081		117	63.5	128					
Sample ID	1504454-001AMSI	D SampT	ype: MS	SD	Tes	tCode: E	PA Method	8015D: Dies	el Range (Organics			
Client ID:	SC-1	Batch	ID: 18	609	F	RunNo: 2	5459						
Prep Date:	4/10/2015	Analysis D	ate: 4/	13/2015	5	SeqNo: 7	54260	Units: mg/k	(g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range (Organics (DRO)	49	9.7	48.54	0	101	29.2	176	2.26	23			
Surr: DNOP		5.8		4.854		119	63.5	128	0	0			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range E
- Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit

Page 6 of 8

- Sample pH Not In Range
- Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1504454

14-Apr-15

Client: Rule

Rule Engineering LLC

Project: Enterprise Richardson Com #3 Pipeline Release

Sample ID MB-18613 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 18613 RunNo: 25449

Prep Date: 4/10/2015 Analysis Date: 4/11/2015 SegNo: 753290 Units: %REC

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Surr: BFB 890 1000 88.8 80 120

Sample ID LCS-18613 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 18613 RunNo: 25449

Prep Date: 4/10/2015 Analysis Date: 4/11/2015 SeqNo: 753291 Units: %REC

RPDLimit SPK value SPK Ref Val %RPD Analyte Result PQL %REC LowLimit HighLimit Qual Surr: BFB 960 1000 96.3 ลก 120

Sample ID MB-18615 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range PBS Batch ID: 18615 Client ID: RunNo: 25449 Analysis Date: 4/11/2015 Prep Date: 4/10/2015 SeqNo: 753308 Units: mg/Kg Result SPK value SPK Ref Val %REC LowLimit Analyte **PQL** HighLimit %RPD **RPDLimit** Qual

 Gasoline Range Organics (GRO)
 ND
 5.0

 Surr: BFB
 910
 1000
 90.7
 80
 120

Sample ID LCS-18615 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 18615 RunNo: 25449 Prep Date: 4/10/2015 Analysis Date: 4/11/2015 SeqNo: 753309 Units: mg/Kg **PQL** SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte Result LowLimit Gasoline Range Organics (GRO) 25 5.0 n 25.00 102 64 130 1000 Surr: BFB 980 97.8 80 120

Sample ID 1504454-001AMS SampType: MS TestCode: EPA Method 8015D: Gasoline Range Client ID: RunNo: 25449 SC-1 Batch ID: 18615 Prep Date: 4/10/2015 Analysis Date: 4/11/2015 SeqNo: 753311 Units: mg/Kg %REC Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit %RPD **RPDLimit** Qual 28 4.9 24.70 0 113 47.9 Gasoline Range Organics (GRO) 144 970 988.1 98.4 80 120 Surr: BFB

Sample ID 1504454-001AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: **SC-1** Batch ID: **18615** RunNo: **25449**

Prep Date: 4/10/2015 Analysis Date: 4/11/2015 SeqNo: 753312 Units: mg/Kg

LowLimit Analyte Result POL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 29 4.9 24 70 116 47.9 144 3.08 29.9 Surr: BFB 970 988.1 97.7 80 120 0 0

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 7 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504454

14-Apr-15

Client:

Rule Engineering LLC

Project:

Enterprise Richardson Com #3 Pipeline Release

Sample ID	MB-18613

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

Client ID:

Batch ID: 18613

RunNo: 25449

Prep Date: 4/10/2015 Analysis Date: 4/11/2015

SeqNo: 753332 %REC

Units: %REC

120

Result

SPK value SPK Ref Val

80

LowLimit

HighLimit %RPD **RPDLimit**

Qual

Analyte Surr: 4-Bromofluorobenzene

1.0

1.000

TestCode: EPA Method 8021B: Volatiles

100

Sample ID LCS-18613

SampType: LCS

Client ID:

LCSS

Batch ID: 18613

RunNo: 25449

Prep Date:

4/10/2015

SeqNo: 753333

Units: %REC

Analysis Date: 4/11/2015

1.000

107

Surr: 4-Bromofluorobenzene

SPK value SPK Ref Val %REC

LowLimit HighLimit %RPD **RPDLimit** Qual

Sample ID MB-18615

SampType: MBLK

Analysis Date: 4/11/2015

PQL

0.050

0.050

PQL

TestCode: EPA Method 8021B: Volatiles

120

Client ID:

PBS

Batch ID: 18615

ND

1.0

Result

1 1

1.1

Result

RunNo. 25449 SeqNo: 753339

Units: mg/Kg

HighLimit

RPDLimit

Qual

Analyte Benzene Toluene

Xyleries, Total

Prep Date:

Result ND ND ND Ethylbenzene

4/10/2015

0.050 0.10

105

0

SPK value SPK Ref Val %REC LowLimit

80

Surr: 4-Bromofluorobenzene Sample ID LCS-18615

Surr: 4-Bromofluorobenzene

SampType: LCS

PQL

0.050

TestCode: EPA Method 8021B: Volatiles

LowLimit

76.6

Client ID: LCSS

Batch ID: 18615 Prep Date: 4/10/2015 Analysis Date: 4/11/2015

RunNo: 25449 SeqNo: 753340

Units: mg/Kg

128

HighLimit

120

%RPD

%RPD

RPDLimit Qual

Toluene Ethylbenzene Xylenes, Total

Analyte

Benzene

0.97 0.050 1.0 0.050 3.2 0.10 1.1

1.000 1.000 3.000

1.000

1.000

SPK value SPK Ref Val

1.000

0 106 0 97.5 0 104

106

108

%REC

75 124 79.5 78.8

126 124 80 120

Qualifiers:

0

S

Value exceeds Maximum Contaminant Level.

Spike Recovery outside accepted recovery limits

- Value above quantitation range F
- Analyte detected below quantitation limits
- RSD is greater than RSDlimit RPD outside accepted recovery limits R

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit р Sample pH Not In Range
- Reporting Detection Limit

Page 8 of 8

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NA 87409

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

RULE ENGINEERING LL Client Name: Work Order Number: 1504454 ReptNo: 1 Received by/date: Logged By: 4/10/2015 6:00:00 AM Lindsay Mangin Completed By: Lindsay Mangin 4/10/2015 7:00:02 AM Reviewed By: Chain of Custody Yes No 🗌 Not Present 🗹 1 Custody seals intact on sample bottles? Yes 🔽 No 🗌 Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗆 NA 🔲 Yes V 4. Was an attempt made to cool the samples? No [NA T 5. Were all samples received at a temperature of >0° C to 6:0°C Yes V 6. Sample(s) in proper container(s)? Yes V No 🗌 Yes 🗸 7. Sufficient sample volume for indicated test(s)? 8. Are samples (except VOA and ONG) properly preserved? Yes V Yes 🗌 No 🗹 NA [] 9. Was preservative added to bottles? Yes. No 🗌 No VOA Vials 🗹 10.VOA vials have zero headspace? Yes C No 🗹 11. Were any sample containers received broken? # of preserved bottles checked No 🗆 for pH: Yes 🐼 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗌 Yes V 13. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 🗌 14. Is it clear what analyses were requested? Checked by: 15. Were all holding times able to be met? Yes V No. (If no, notify customer for authorization.) Special Handling (if applicable) No 🗌 NA 🛂 16. Was client notified of all discrepancies with this order? Yes 🗌 Person Notified; Date By Whom: Vla: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Coster No | Temp °C | Condition | Seal Intact | Seal No | Seal Date Good

		Chain-of-Custody Record			Turn-Around Time:				1	AI		AIL	# TO BE	<i>7</i>				AD	
Client: Rule Engineering UC			Standard □ RushProject Name:				HALL ENVIRONMENTA ANALYSIS LABORATO www.hallenvironmental.com											7	
Mailing Address: Dave			Richardson	Com#3 P	ipeline Release,														
Swift 205 Farmington NM 81401		Project #:	- CO// O		Tel. 505-345-3975 Fax 505-345-4107														
		Project Mana	oer.			1. 2. COM . 40 . TO		200 SERVED PARTY			2020 S 1925		CCS					1	
QA/QC Package:					·	(8021)	Gas on	W WK		(SM		05,00	PCB's						
Accreditation					□ No	+ 7	+ TPH (S C C	18.1)	04.1) 8270 S		3,NO ₂ ,F	, / 8082		A				(N Io
(Type)			Sample Tem	erature: 2	2.8		8E	9	4 b	מׁן מַ	tals	N.	ides	7	0>-				2
Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX +本語	BTEX + MT	TPH 8015B	TPH (Metho	PAH's (831	RCRA 8 Me	Anions (F,C	8081 Pestic	8260B (VO/	8270 (Semi				Air Bubbles
1145	Sort	SC-1	1-401 dass	cold	-001	X		Χ											Γ
	Sore	Sc -2	1	Cold	-002	χ		X											T
1335	, ,	SC-3	1 .1	Cold	-003	X		X											\vdash
1452		SC-4	001/			X		X											T
		SC-5			K		X											F	
		M 118					_		-	-	ļ			_			\bot	—	\perp
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District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 1000 Rio Brazos Road, Aztec, NM 87410 1220 S. St. Francis Dr., Santa Fe, NM 87505

Source of Release: Internal corrosion

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

Oil Conservation Division 1220 South St. Francis Dr. OIL CONS. DIV DIST. 3

JUN 29 2015

Form C-141 Revised August 8, 2011

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

Date and Hour of Discovery:

				S <u>a</u>	nta F	e, NM 8	7505					
<u> </u>		F	Release	Notific	atio	n and (Corrective	Action	on			<u> </u>
					O	PERATO)R		Initial	Report	\boxtimes	Final Report
Name of C	company:	Enterprise I	Field Serv	ices LLC		Contact:	Thomas Long	-				
Address: 6	14 Reilly	Ave, Farmin	gton, NM	87401		Telephon	e No. 505-599	-2286				
Facility Na	me: Truni	< 3C				Facility T	ype: Natural C	as Gatl	ering F	Pipeline		
Surface O	wner: Priv	ate				: Private	ELFASE		API N	0.		
Unit Letter B	Section 32	Township 29N	Range 12W	Feet from the 133		thSouth	Feet from the 2293	East Line	Vest	County San Jua	ลท	
			L		_	4 Longitu	ıde <u>-108.121</u> 4 _EASE	16				
Type of Rel	ease: Natui	ral Gas and N	Natural Gas		-		of Release 125	.37	Volume	Recovere	d: Non	е

MCF Gas; 3-5 BBLS Fluids

Date and Hour of Occurrence:

	5/12/15 @ 12:45 p.m.	5/12/15 @ 1:40 p.m.							
Was Immediate Notice Given?	If YES, To Whom? Courtesy N	Notification - Cory Smith NMOCD							
☐ Yes ☐ No ☒ Not Required									
By Whom? Thomas Long	Date and Time 5/21/2015 @ 2	2:30 p.m. by phone							
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse								
☐ Yes ⊠ No									
If a Watercourse was Impacted, Describe Fully.*		<u> </u>							
Describe Cause of Problem and Remedial Action: On May 12, 201									
a routine pipeline patrol. The line was isolated, blown down, depre-									
corrosion. The pipeline was repaired and remediation of the releas	e was completed on May 21, 201	5.							
Describe Area Affected and Cleanup Action: The contaminant mas	s was removed by mechanical e	vegyation. The final excavation measured							
approximately 20 feet long by 17 feet wide by 7.5 feet deep. Approximately 20 feet long by 17 feet wide by 7.5 feet deep.									
transported to a New Mexico Oil Conservation approved land farm									
141.	and party someone a								
I hereby certify that the information given above is true and comple	ete to the best of my knowledge a	and understand that pursuant to NMOCD							
rules and regulations all operators are required to report and/or file									
which may endanger public health or the environment. The accep-									
relieve the operator of liability should their operations have failed to									
ground water, surface water, human health or the environment. In									
operator of responsibility for compliance with any other federal, sta									
Simplify Total English	<u>OIL CONSEI</u>	RVATION DIVISIÓN							
Signature: You Field									
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E-mail Address:jefields@eprod.com	Conditions of Approval:								
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Date: 6-15-70/5 Phone: (713)381-6684 * Attach Additional Sheets If Necessary HNCS 15/4/13									
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OIL CONS. DIV DIST. 3

JUN 2 9 2015

Trunk 3C Pipeline Release Report

Section 32, Township 29N, Range 12W N36.68994, W108.12146 San Juan County, New Mexico May 28, 2015

Prepared for:

Enterprise Products Operating, LLC 614 Reilly Avenue Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC 501 Airport Drive, Suite 205 Farmington, New Mexico 87401

Enterprise Products Operating, LLC Trunk 3C Pipeline Release Report

Prepared for:

Enterprise Products Operating, LLC 614 Reilly Avenue Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC 501 Airport Drive, Suite 205 Farmington, New Mexico 87401

Deborah Watson, PG, Geologist

Debrah Water

Reviewed by:

Russell Knight, PG, Principal Hydrogeologist

May 28, 2015

1 Introduction

The Enterprise Products Operating, LLC (Enterprise) Trunk 3C pipeline release site is located in Unit Letter B, Section 32, Township 29N, Range 12W in San Juan County, New Mexico. The pipeline release occurred at a corrosion hole along the 16-inch Trunk 3C pipeline. The release was discovered on May 12, 2015.

On May 21, 2015, the point of release was identified and repaired. The release consisted of an unknown quantity of natural gas and condensate. Site work included repair of the leaking pipeline and excavation of hydrocarbon impacted soils on May 21, 2015.

A topographic map of the location is included as Figure 1 and an aerial site map is included as Figure 2.

2 Release Summary

Site Name - Trunk 3C Pipeline Release

Location - Unit Letter B (NW/NE), Section 32, Township 29N, Range 12W

Release Latitude/Longitude - N36.68994 and W108.12146, respectively

Land Jurisdiction – Private

Date Release Discovered - May 12, 2015

Agency Notification – New Mexico Oil Conservation Division (NMOCD)

Diameter of pipeline – 16-inch

Source of Release -corrosion hole along 16-inch pipeline

Release Contents - natural gas and condensate

Release Volume -- unknown

NMOCD Site Ranking – 20

Date of Rule Engineering, LLC (Rule) Field Work – May 21, 2015

Subcontractor(s) – West States Energy Contractors, Inc. (West States)

Disposal Facility – Envirotech Land Farm (Permit #NM-01-011)

Amount of Contaminated Soil Excavated/Disposed – 68 cubic yards

3 NMOCD Site Ranking

In accordance with NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 20 (Table 1). Based on the ranking score of 20, action levels for remediated soils at the site are as follows: 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH).

Depth to groundwater at the site was estimated to be between 91 and 98 feet below ground surface (bgs) based on the elevation differential (91 feet) between the release location and the wash in Gallegos Canyon (approximately 0.6 miles to the east) and the elevation differential (98 feet) between the release location and the San Juan River (approximately 0.65 miles to the northwest).

A review was completed of the New Mexico Office of the State Engineer online New Mexico Water Rights Reporting System and no water wells were identified within a 1,000 feet radius of the location. Hammond Ditch is located approximately 1,120 feet north of the location.

An unnamed wash is located approximately 780 feet northwest of the location and drains to the San Juan River. An additional surface water feature, an unnamed wash, is located 1,060 feet northwest of the location and drains to the wash in Gallegos Canyon and then to the San Juan River.

4 Field Activities

On May 12, 2015, Enterprise personnel discovered a pipeline leak along the 16-inch Trunk 3C pipeline. Enterprise, West States, and Rule personnel were onsite for remediation activities on May 21, 2015. West States provided heavy equipment operation and excavated the petroleum impacted materials from within the release area. Rule personnel provided excavation oversight and conducted field screening during remediation activities. On May 21, 2015, based on visual observation and field screening results, the excavation was halted, and Rule personnel collected five confirmation samples (SC-1 through SC-5) from each of the sidewalls and base of the excavation. Repairs were made at the corrosion hole. Approximately 68 cubic yards of hydrocarbon impacted soils were removed from an area of excavation measuring approximately 20 feet x 17 feet x 7.5 feet in depth. Figure 3 provides the locations and results of the soil samples collected.

A copy of the executed C-138 Solid Waste Acceptance Form is included in Appendix A. A photograph log is included in Appendix B.

5 Soil Sampling

Rule collected confirmation soil samples from the sidewalls and base of the excavation. Soil samples SC-1 through SC-5 were collected on May 21, 2015. Each confirmation soil sample (SC-1 through SC-5) is a representative composite of material collected from five separate locations within the sample area.

Soil samples collected for laboratory analysis were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. All samples were analyzed for BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B and TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D. Laboratory analytical results are summarized in Table 2, and the analytical laboratory report is included in Appendix C.

A portion of each composite soil sample was also field screened for volatile organic compounds (VOCs). Field screening for VOC vapors was conducted with a photo-ionization detector (PID). Before beginning field screening, the PID was calibrated with

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100 parts per million (ppm) isobutylene gas. Field screening results are summarized in Table 2.

6 Conclusions

The release of unknown quantity of natural gas and condensate occurred at corrosion hole along the 16-inch Trunk 3C pipeline. Remedial activities included excavation of 68 cubic yards of hydrocarbon impacted soils along the pipeline. Five confirmation soil samples were collected from the sidewalls and base of the excavation on May 21, 2015, for laboratory analysis of BTEX and TPH. The final excavation measured approximately 20 feet x 17 feet x 7.5 feet in depth.

Laboratory analytical results for soil confirmation samples (SC-1 through SC-5) reported benzene and total BTEX concentrations below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. All soil confirmation samples reported TPH concentrations below the NMOCD action level of 100 mg/kg. Action levels are based on a NMOCD site ranking of 20.

Based on laboratory analytical results, no further work is recommended.

7 Closure and Limitations

This report has been prepared for the exclusive use of Enterprise and is subject to the terms, conditions and limitations stated in Rule's proposal, the report, and Rule's Service Agreement with Enterprise. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Table 1. NMOCD Site Ranking Determination Trunk 3C Pipeline Release San Juan County, New Mexico Enterprise Products Operating, LLC

Ranking Criteria	Ranking	Site-Based	Basis for Determination	Data
	Score	Ranking Score		Sources
Depth to Groundwater	· · · · · · · · · · · · · · · · · · ·			
<50 feet	20		Elevation differential between location and wash in Gallegos Canyon east of the location is 91 feet.	NMOCD Online database,
50-99 feet	10	10	Location is at a higher elevation. Elevation differential between location and the San Juan River is 98 feet.	Horn Canyon Quadrangle, Google Earth, and Visual
>100 feet	0		Location is at a higher elevation.	Inspection
Wellhead Protection Area			· · · · · · · · · · · · · · · · · · ·	
<1,000 feet from a water source, or <200 feet from private domestic water source	20 (Yes)	0	No water source or recorded water wells within 1,000 feet radius of location. Hammond Ditch is located	NMOSE NMWRRS, Horn Canyon Quadrangle,
,	0 (No)		1,120 feet north of the location.	Google Earth, and Visual Inspection
Distance to Surface Water Body				
<200 horizontal feet	20		Unnamed wash located at 780 feet northwest of location and drains to the San Juan River. An	
200 to 1,000 horizontal feet	10	10	additional unnamed wash is located 1,060 feet northwest of the location and drains to the wash in Gallegos Canyon and then to the San Juan River. The	Horn Canyon Quadrangle, Google Earth, and Visual Inspection
>1,000 horizontal feet	0.		San Juan River is located 0.65 miles northwest of the location.	
Site Based Total Rank	ing Score	20]	
Site Dased Total Rain	ing ocore		I	

Table 2. Soil Sampling Results-VOCs, Benzene, Total BTEX, and TPH Trunk 3C Pipeline Release
San Juan County, New Mexico
Enterprise Products Operating, LLC

			Benzene	Total BTEX	TPH-GRO	TPH-DRO					
Sample ID	Date	Location	(ft bgs)	(ppm)	(mg/kg)	(mg/kg)	(mg	/kg)			
		NMC	OCD Action Levels*	100	10	50	100				
SC-1	May 21, 15	South Wall	0 to 7.5	3.5	<0.032	<0.161	<3.2	<10			
SC-2	May 21, 15	West Wall	0 to 7.5	13.5	0.038	4.8	23	<9.7			
SC-3	May 21, 15	East Wall	0 to 7.5	15.3	<0.038	<0.191	<3.8	<9.7			
SC-4	May 21, 15	North Wall	0 to 7.5	21.3	<0.030	<0.151	<3.0	<9.8			
SC-5	May 21, 15	Base	7.5	13.5	<0.031	<0.156	<3.1	<9.7			

Notes:

VOCs - volatile organic compounds

PID - photo-ionization detector

ft bgs - feet below ground surface

ppm - parts per million

mg/kg - milligrams/kilograms

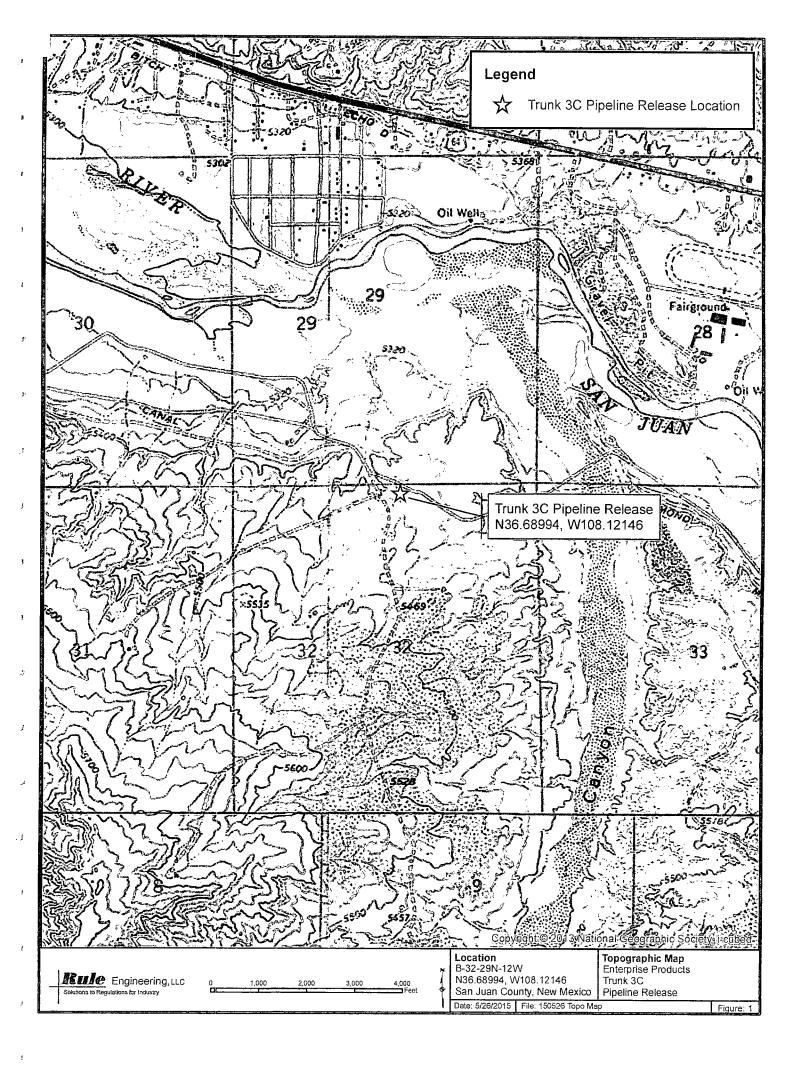
BTEX - benzene, toluene, ethylbenzene, and xylenes

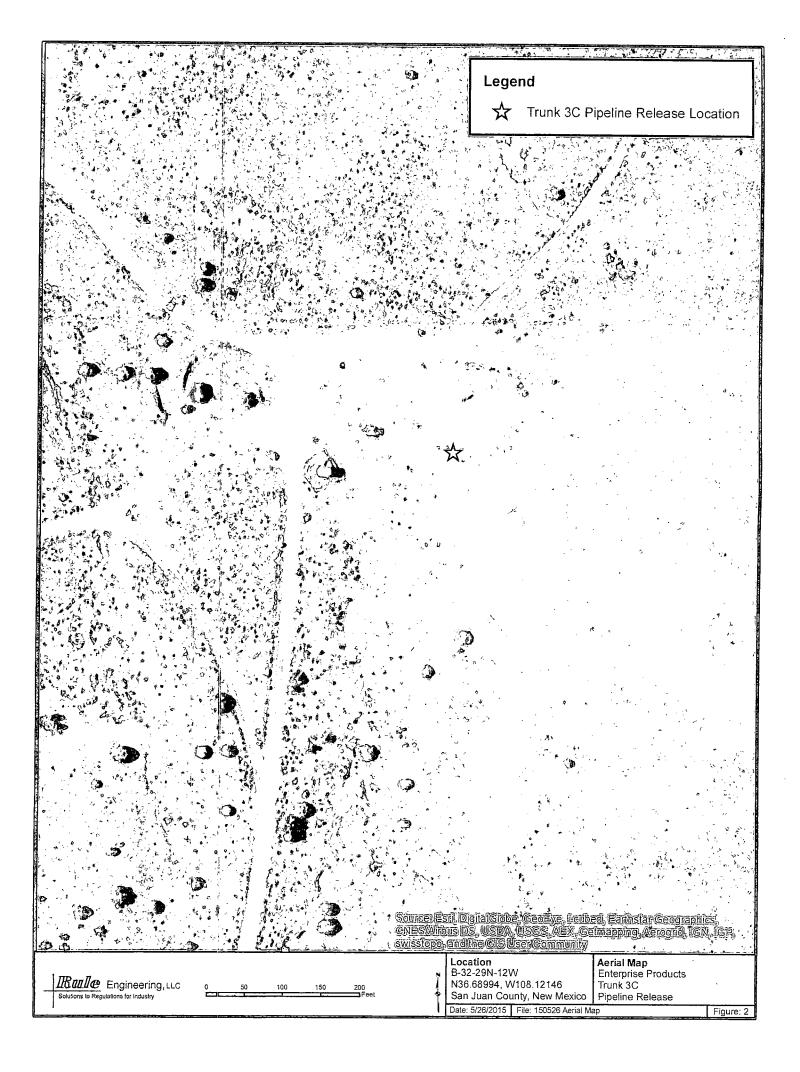
TPH-GRO - total petroleum hydrocarbons-gasoline range organics

TPH-DRO - total petroleum hydrocarbons-diesel range organics

*NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (1993)

Figures





Legend

- Soil Sample
- O Trunk 3C Pipeline Release Location

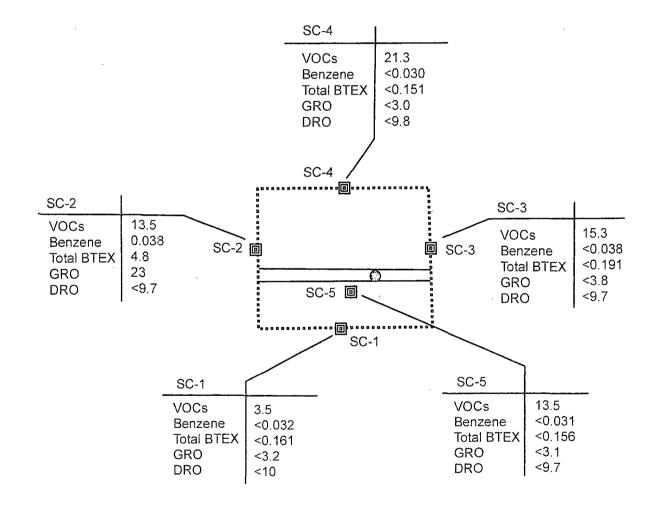
---- Pipeline

••••• Excavation

Notes:

VOCs= volatile organic compounds
BTEX= benzene, toluene, ethylbenzene, and xylenes
GRO= gasoline range organics
DRO= diesel range organics
VOC results in ppm.

All other results in mg/kg. Samples collected May, 2015.

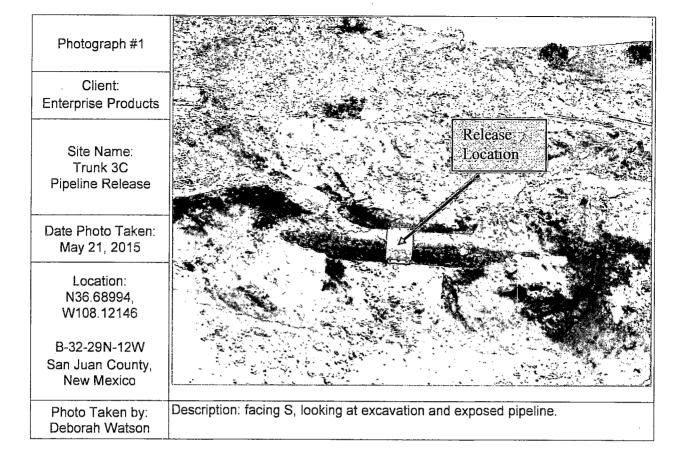


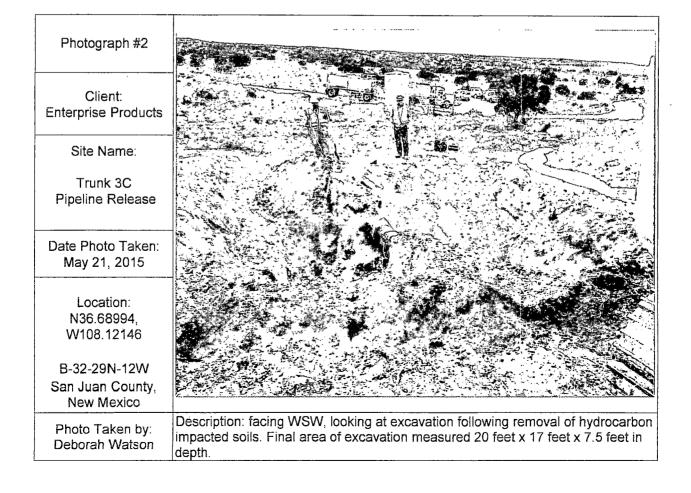
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Appendix A Executed C-138 Solid Waste Acceptance Form

Appendix B Photograph Log





Appendix C Analytical Laboratory Report



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

OrderNo.: 1505994

May 26, 2015

Deborah Watson Rule Engineering LLC 501 Airport Dr., Ste 205 Farmington, NM 87401 TEL: (505) 860-2712 FAX

RE: Trunk 3C Pipeline

Dear Deborah Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/22/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1505994

Date Reported: 5/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-2

Project: Trunk 3C Pipeline

Collection Date: 5/21/2015 2:10:00 PM

Lab ID: 1505994-002

Matrix: SOIL Rec

Received Date: 5/22/2015 6:10:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS			-		Analys	t: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/22/2015 9:47:47 AM	19355
Surr: DNOP	88.0	57.9-140		%REC	1	5/22/2015 9:47:47 AM	19355
EPA METHOD 8015D: GASOLINE RA	ANGE					Analys	t: RAA
Gasoline Range Organics (GRO)	23	3.3		mg/Kg	1	5/22/2015 9:17:28 AM	19348
Surr: BFB	126	80-120	S	%REC	1	5/22/2015 9:17:28 AM	19348
EPA METHOD 8021B: VOLATILES						Analys	t: RAA
Benzene	0.038	0.033		mg/Kg	1	5/22/2015 9:17:28 AM	19348
Toluene	1.4	0.033		mg/Kg	1	5/22/2015 9:17:28 AM	19348
Ethylbenzene	0.27	0.033		mg/Kg	1	5/22/2015 9:17:28 AM	19348
Xylenes, Total	3.1	0.066		mg/Kg	1	5/22/2015 9:17:28 AM	19348
Surr: 4-Bromofluorobenzene	120	80-120		%REC	1	5/22/2015 9:17:28 AM	19348

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 2 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1505994

Date Reported: 5/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-3

Project: Trunk 3C Pipeline Collection Date: 5/21/2015 2:40:00 PM

Lab ID:

1505994-003

Matrix: SOIL Received Date: 5/22/2015 6:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RAN	GE ORGANICS				Analys	st: KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	5/22/2015 10:08:59 A	M 19355
Surr: DNOP	89.3	57.9-140	%REC	1	5/22/2015 10:08:59 A	M 19355
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	st: RAA
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	5/22/2015 9:46:08 AM	1 19348
Surr: BFB	89.6	80-120	%REC	1	5/22/2015 9:46:08 AM	1 19348
EPA METHOD 8021B: VOLATILES					Analys	st: RAA
Benzene	ND	0.038	mg/Kg	1	5/22/2015 9:46:08 AM	1 19348
Toluene	ND	0.038	mg/Kg	1	5/22/2015 9:46:08 AM	19348
Ethylbenzene	ND	0.038	mg/Kg	1	5/22/2015 9:46:08 AM	19348
Xylenes, Total	ND	0.077	mg/Kg	1	5/22/2015 9:46:08 AM	1 19348
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	5/22/2015 9:46:08 AM	19348

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range Ε
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 3 of 8

- P Sample pH Not In Range
- RLReporting Detection Limit

Lab Order 1505994

Date Reported: 5/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: Tr

Trunk 3C Pipeline

Collection Date: 5/21/2015 3:05:00 PM

Lab ID:

1505994-004

Matrix: SOIL

Received Date: 5/22/2015 6:10:00 AM

Analyses	rses Result RL Qual Units		al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	SE ORGANICS				Analys	t: KJH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	5/22/2015 10:30:14 AN	1 19355
Surr: DNOP	90.2	57.9-140	%REC	1	5/22/2015 10:30:14 AN	1 19355
EPA METHOD 8015D: GASOLINE RA	ANGE				Analys	t: RAA
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	5/22/2015 10:14:52 AM	1 19348
Surr: BFB	89.1	80-120	%REC	1	5/22/2015 10:14:52 AM	1 19348
EPA METHOD 8021B: VOLATILES					Analys	t: RAA
Benzene	ND	0.030	mg/Kg	1	5/22/2015 10:14:52 AM	1 19348
Toluene	ND	0.030	mg/Kg	1	5/22/2015 10:14:52 AM	1 19348
Ethylbenzene	ND	0.030	mg/Kg	1	5/22/2015 10:14:52 AM	1 19348
Xylenes, Total	ND	0.061	mg/Kg	1	5/22/2015 10:14:52 AM	1 19348
Surr: 4-Bromofluorobenzene	104	80-120	%REC	1	5/22/2015 10:14:52 AM	1 19348

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 4 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1505994

Date Reported: 5/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Trunk 3C Pipeline Project:

1505994-005

Lab ID:

Matrix: SOIL

Client Sample ID: SC-5

Collection Date: 5/21/2015 3:15:00 PM

Received Date: 5/22/2015 6:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	5/22/2015 10:51:25 AN	1 19355
Surr: DNOP	89.7	57.9-140	%REC	1	5/22/2015 10:51:25 AM	1 19355
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: RAA
Gasoline Range Organics (GRO)	ND	3.1	mg/Kg	1	5/22/2015 10:43:30 AN	1 19348
Surr: BFB	89.6	80-120	%REC	1	5/22/2015 10:43:30 AN	1 19348
EPA METHOD 8021B: VOLATILES					Analys	t: RAA
Benzene	ND	0.031	mg/Kg	1	5/22/2015 10:43:30 AN	1 19348
Toluene	ND	0.031	mg/Kg	1	5/22/2015 10:43:30 AN	1 19348
Ethylbenzene	ND	0.031	mg/Kg	1	5/22/2015 10:43:30 AN	1 19348
Xylenes, Total	ND	0.063	mg/Kg	1	5/22/2015 10:43:30 AN	1 19348
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	5/22/2015 10:43:30 AN	1 19348

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- Analyte detected below quantitation limits J
- О RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND

 - Sample pH Not In Range
- RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1505994

26-May-15

Client:

Rule Engineering LLC

Project:

Trunk 3C Pipeline

Sample ID	MB-19355
Client ID:	PBS

SampType: MBLK

TestCode: EPA Method 8015D: Diesel Range Organics

57.9

LowLimit

67.8

57.9

Batch ID: 19355

RunNo: 26355

Prep Date:

5/22/2015

Analysis Date: 5/22/2015

SeqNo: 783207

Units: mg/Kg

140

Qual

Surr: DNOP

Analyte

Analyte Diesel Range Organics (DRO) Result **PQL** ND 10 9.6

SPK value SPK Ref Val %REC LowLimit HighLimit

RPDLimit

Sample ID LCS-19355

Result

42

4.2

TestCode: EPA Method 8015D: Diesel Range Organics

%REC

83.2

SampType: LCS

10.00

50.00

5.000

SPK value SPK Ref Val

96.2

%RPD

Client ID: LCSS Prep Date: 5/22/2015

Diesel Range Organics (DRO)

Batch ID: 19355 Analysis Date: 5/22/2015

PQL

RunNo: 26355 SeqNo: 783219

HighLimit

Units: mg/Kg

130

140

RPDLimit

Qual

Surr: DNOP Sample ID 1505994-001AMS

SampType: MS

83.1 TestCode: EPA Method 8015D: Diesel Range Organics

%RPD

Client ID: SC-1 Batch ID: 19355

RunNo: 26355

Prep Date: 5/22/2015

Analysis Date: 5/22/2015

SegNo: 783477

Units: mg/Kg

HighLimit %RPD

RPDLimit

Qual

Diesel Range Organics (DRO) Surr: DNOP

Analyte

43 4.3

Result

44

4.4

Result

POL SPK value SPK Ref Val 50.20 10

5.020

%REC 85.1 86.4

n

42.3 57.9

146 140

Qual

Sample ID 1505994-001AMSD

SampType: MSD Batch ID: 19355

PQL

TestCode: EPA Method 8015D: Diesel Range Organics

RunNo: 26355

LowLimit

Client ID: Prep Date:

Analyte

SC-1

5/22/2015 Analysis Date: 5/22/2015

SeqNo: 783651

Units: mg/Kg

%RPD

RPDLimit

0

Page 6 of 8

28.9

Diesel Range Organics (DRO) Surr: DNOP

10 50.15 5.015

SPK value SPK Ref Val %REC 87.0

87.4

LowLimit 42.3

HighLimit 146 57.9 140

2.13

0

Qualifiers:

- Value exceeds Maximum Contaminant Level
- £ Value above quantitation range
- Analyte detected below quantitation limits
- RSD is greater than RSDlimit 0
- R RPD outside accepted recovery limits Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit
- P Sample pH Not In Range
- Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1505994

26-May-15

Client:

Rule Engineering LLC

Project:

Trunk 3C Pipeline

Sample ID MB-19348 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 19348 RunNo: 26362 SeqNo: 783469 Prep Date: 5/21/2015 Analysis Date: 5/22/2015 Units: mg/Kg Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 890 1000 89.0 80 120

Sample ID LCS-19348 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 19348 RunNo: 26362 Prep Date: 5/21/2015 Analysis Date: 5/22/2015 SeqNo: 784013 Units: mg/Kg PQL SPK value SPK Ref Val %REC HighLimit %RPD Analyte Result LowLimit **RPDLimit** Qual Gasoline Range Organics (GRO) 25 5.0 25.00 0 99.6 64 130 Surr: BFB 970 1000 97.4 80 120

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 7 of 8

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1505994

26-May-15

Client:

Rule Engineering LLC

Project:

Trunk 3C Pipeline

Sample ID MB-19348	SampT	ype: ME	3LK	Tes						
Client ID: PBS	Batch ID: 19348			F	RunNo: 2	6362				
Prep Date: 5/21/2015	Analysis Da	22/2015	S	SeqNo: 7	83476	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	. 80	120			

	Sample ID LCS-19348	S	Tes	tCode: El	PA Method	8021B: Volat	tiles			1			
	Client ID: LCSS	Batcl	h ID: 19 :	348	F	RunNo: 26362							
Prep Date: 5/21/2015		Analysis Date: 5/22/2015			5	SeqNo: 784022			Units: mg/Kg				
	Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
	Benzene	1.0	0.050	1.000	0	101	76.6	128		<u> </u>			
2	Toluene	0.99	0.050	1.000	0	99.0	75	124					
	Ethylbenzene	1.0	0.050	1.000	0	102	79.5	126					
	Xylenes, Total	3.0	0.10	3.000	0	101	78.8	124					
	Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120					

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- O RSD is greater than RSD limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 8 of 8



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

Website: www.hallenvironmental.com Client Name: **RULE ENGINEERING LL** Work Order Number: 1505994 RoptNo: 1 05/22/15 Received by/date: an Ihm Logged By: Anne Thome 5/22/2015 6:10:00 AM Completed By: Anne Thorne Reviewed By: Chain of Custody Not Present V 1 Custody seals intact on sample bottles? Yes \square No 🗌 No 🗌 Not Present Yes 🔽 2. Is Chain of Custody complete? 3 How was the sample delivered? Courier Log In NA 🗌 No 🗌 4. Was an attempt made to cool the samples? Yes 🗸 No 🗍 NA 🗌 Yes 🗸 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 No. 6. Sample(s) in proper container(s)? Yes 🗸 No 🗀 7. Sufficient sample volume for indicated test(s)? No 🗌 8. Are samples (except VOA and ONG) properly preserved? Yes V No 🗸 NA 🗌 Yes 🗌 9. Was preservative added to bottles? No VOA Vials No 🗌 10. VOA vials have zero headspace? Yes Yes 🗆 No 🗸 11. Were any sample containers received broken? # of preserved bottles checked for pH: Yes 🗸 No 🗆 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No Yes 🗸 13. Are matrices correctly identified on Chain of Custody? No 🗆 Yes 🗸 14. Is it clear what analyses were requested? No 🗌 Checked by: Yes 🗸 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) na 🔽 Yes 🗌 16. Was client notified of all discrepancies with this order? No 🔲 Person Notified: Date By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C | Condition | Seal Intact | Seal No | Seal Date

3.8

Good

C	hain	-of-Cu	stody Record	Turn-Around Time:									-		<i>-</i>	-				FAT	
lient:	Rule	Engin	cering	☐ Standard	Rush	Sameday				A	IN	AL	.Y:	SIS	S L	AI	30			TAL OR	
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Farm	ungton	MU	87401	Project #:				Tel. 505-345-3975 Fax 505-345-4107													
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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 12	GTEX) THE	BTEX + MTBE	TPH 8015B(GRO	TPH (Method 418.1)	EDB (Method	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
21-15	1355	Svi	SC-1	1-12011/02	Moth	70	入		メ												
21-19	1410	8ni	SC-2 (1956)	<u> </u>		-002	X		*												
-21-15	1440	Sni	Sc-3			7003	X		X												
•	1505	80l	SC-4			-004	1/2		X												
-21-15		Sol	56-5	4	d	-005	X		X												
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12/15	240 th	Samples subr	at Wallen mitted to Hall Environmental may be sub-	contracted to other a	Coredited laboratori	5/22/15/4/0	Pay	<i>ikey</i>	:RE	3212	2.60	i data	will be	closs	ly pot-	tod a-	the -	nalide			