

October 21, 2016

MIKE STUBBLEFIELD R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE, NM 87104

RE: ASAU TRUNK LINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 10/20/16 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



R T HICKS CONSULTANTS MIKE STUBBLEFIELD 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	10/20/2016	Sampling Date:	10/19/2016
Reported:	10/21/2016	Sampling Type:	Soil
Project Name:	ASAU TRUNK LINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	30.015.0028N	Sample Received By:	Celey D. Keene
Project Location:	UT P SEC 14-T18S-R26E		

Sample ID: BH - 1 15' (H602353-01)

BTEX 8021B	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	132	2.00	10/21/2016	ND	1.99	99.4	2.00	1.67	
Toluene*	319	2.00	10/21/2016	ND	2.24	112	2.00	1.57	
Ethylbenzene*	169	2.00	10/21/2016	ND	2.24	112	2.00	1.80	
Total Xylenes*	375	6.00	10/21/2016	ND	6.76	113	6.00	1.70	
Total BTEX	995	12.0	10/21/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	112	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	48.0	16.0	10/20/2016	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: CK					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10	7990	50.0	10/21/2016	ND	192	95.9	200	3.20	
DRO >C10-C28	9410	50.0	10/21/2016	ND	210	105	200	12.0	
EXT DRO >C28-C35	1430	50.0	10/21/2016	ND					
Surrogate: 1-Chlorooctane	197	% 35-147	7						
Surrogate: 1-Chlorooctadecane	211	% 28-171							

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS MIKE STUBBLEFIELD 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	10/20/2016	Sampling Date:	10/19/2016
Reported:	10/21/2016	Sampling Type:	Soil
Project Name:	ASAU TRUNK LINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	30.015.0028N	Sample Received By:	Celey D. Keene
Project Location:	UT P SEC 14-T18S-R26E		

Sample ID: BH - 1 20' (H602353-02)

BTEX 8021B	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.30	0.500	10/21/2016	ND	1.99	99.4	2.00	1.67	
Toluene*	11.0	0.500	10/21/2016	ND	2.24	112	2.00	1.57	
Ethylbenzene*	14.3	0.500	10/21/2016	ND	2.24	112	2.00	1.80	
Total Xylenes*	38.1	1.50	10/21/2016	ND	6.76	113	6.00	1.70	
Total BTEX	65.7	3.00	10/21/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	111	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/20/2016	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	544	50.0	10/21/2016	ND	192	95.9	200	3.20	
DRO >C10-C28	1670	50.0	10/21/2016	ND	210	105	200	12.0	
EXT DRO >C28-C35	243	50.0	10/21/2016	ND					
Surrogate: 1-Chlorooctane	144	% 35-147	,						
Surrogate: 1-Chlorooctadecane	127	% 28-171							

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS MIKE STUBBLEFIELD 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	10/20/2016	Sampling Date:	10/19/2016
Reported:	10/21/2016	Sampling Type:	Soil
Project Name:	ASAU TRUNK LINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	30.015.0028N	Sample Received By:	Celey D. Keene
Project Location:	UT P SEC 14-T18S-R26E		

Sample ID: BH - 1 25' (H602353-03)

BTEX 8021B	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	14.7	0.500	10/21/2016	ND	1.99	99.4	2.00	1.67	
Toluene*	54.9	0.500	10/21/2016	ND	2.24	112	2.00	1.57	
Ethylbenzene*	42.5	0.500	10/21/2016	ND	2.24	112	2.00	1.80	
Total Xylenes*	104	1.50	10/21/2016	ND	6.76	113	6.00	1.70	
Total BTEX	216	3.00	10/21/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	121	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	10/20/2016	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: CK					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1310	50.0	10/21/2016	ND	192	95.9	200	3.20	
DRO >C10-C28	2220	50.0	10/21/2016	ND	210	105	200	12.0	
EXT DRO >C28-C35	378	50.0	10/21/2016	ND					
Surrogate: 1-Chlorooctane	156	% 35-147	7						
Surrogate: 1-Chlorooctadecane	98.3	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS MIKE STUBBLEFIELD 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	10/20/2016	Sampling Date:	10/19/2016
Reported:	10/21/2016	Sampling Type:	Soil
Project Name:	ASAU TRUNK LINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	30.015.0028N	Sample Received By:	Celey D. Keene
Project Location:	UT P SEC 14-T18S-R26E		

Sample ID: BH - 1 30' (H602353-04)

BTEX 8021B	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	14.6	0.500	10/21/2016	ND	1.99	99.4	2.00	1.67	
Toluene*	41.8	0.500	10/21/2016	ND	2.24	112	2.00	1.57	
Ethylbenzene*	26.9	0.500	10/21/2016	ND	2.24	112	2.00	1.80	
Total Xylenes*	63.7	1.50	10/21/2016	ND	6.76	113	6.00	1.70	
Total BTEX	147	3.00	10/21/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	113	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/20/2016	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	565	50.0	10/21/2016	ND	192	95.9	200	3.20	
DRO >C10-C28	1030	50.0	10/21/2016	ND	210	105	200	12.0	
EXT DRO >C28-C35	162	50.0	10/21/2016	ND					
Surrogate: 1-Chlorooctane	134	% 35-147	,						
Surrogate: 1-Chlorooctadecane	123	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS MIKE STUBBLEFIELD 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	10/20/2016	Sampling Date:	10/19/2016
Reported:	10/21/2016	Sampling Type:	Soil
Project Name:	ASAU TRUNK LINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	30.015.0028N	Sample Received By:	Celey D. Keene
Project Location:	UT P SEC 14-T18S-R26E		

Sample ID: BH - 1 35' (H602353-05)

BTEX 8021B	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	32.9	0.500	10/21/2016	ND	1.99	99.4	2.00	1.67	
Toluene*	81.8	0.500	10/21/2016	ND	2.24	112	2.00	1.57	
Ethylbenzene*	46.9	0.500	10/21/2016	ND	2.24	112	2.00	1.80	
Total Xylenes*	108	1.50	10/21/2016	ND	6.76	113	6.00	1.70	
Total BTEX	270	3.00	10/21/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	117	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/20/2016	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: CK					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1730	50.0	10/21/2016	ND	192	95.9	200	3.20	
DRO >C10-C28	2340	50.0	10/21/2016	ND	210	105	200	12.0	
EXT DRO >C28-C35	393	50.0	10/21/2016	ND					
Surrogate: 1-Chlorooctane	165	% 35-147	,						
Surrogate: 1-Chlorooctadecane	110	% 28-171							

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R T HICKS CONSULTANTS MIKE STUBBLEFIELD 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	10/20/2016	Sampling Date:	10/19/2016
Reported:	10/21/2016	Sampling Type:	Soil
Project Name:	ASAU TRUNK LINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	30.015.0028N	Sample Received By:	Celey D. Keene
Project Location:	UT P SEC 14-T18S-R26E		

Sample ID: BH - 1 40' (H602353-06)

BTEX 8021B	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.98	0.200	10/21/2016	ND	1.99	99.4	2.00	1.67	
Toluene*	5.32	0.200	10/21/2016	ND	2.24	112	2.00	1.57	
Ethylbenzene*	3.32	0.200	10/21/2016	ND	2.24	112	2.00	1.80	
Total Xylenes*	7.65	0.600	10/21/2016	ND	6.76	113	6.00	1.70	
Total BTEX	18.3	1.20	10/21/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/20/2016	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	56.0	10.0	10/21/2016	ND	192	95.9	200	3.20	
DRO >C10-C28	83.2	10.0	10/21/2016	ND	210	105	200	12.0	
EXT DRO >C28-C35	18.3	10.0	10/21/2016	ND					
Surrogate: 1-Chlorooctane	73.3	% 35-147	7						
Surrogate: 1-Chlorooctadecane	71.3	% 28-171							

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R T HICKS CONSULTANTS MIKE STUBBLEFIELD 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	10/20/2016	Sampling Date:	10/19/2016
Reported:	10/21/2016	Sampling Type:	Soil
Project Name:	ASAU TRUNK LINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	30.015.0028N	Sample Received By:	Celey D. Keene
Project Location:	UT P SEC 14-T18S-R26E		

Sample ID: BH - 1 45' (H602353-07)

BTEX 8021B	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	20.8	0.500	10/21/2016	ND	1.99	99.4	2.00	1.67	
Toluene*	60.2	0.500	10/21/2016	ND	2.24	112	2.00	1.57	
Ethylbenzene*	32.8	0.500	10/21/2016	ND	2.24	112	2.00	1.80	
Total Xylenes*	76.6	1.50	10/21/2016	ND	6.76	113	6.00	1.70	
Total BTEX	190	3.00	10/21/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	117	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/20/2016	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	626	50.0	10/21/2016	ND	192	95.9	200	3.20	
DRO >C10-C28	1140	50.0	10/21/2016	ND	210	105	200	12.0	
EXT DRO >C28-C35	192	50.0	10/21/2016	ND					
Surrogate: 1-Chlorooctane	113	% 35-147	,						
Surrogate: 1-Chlorooctadecane	93.7	% 28-171							

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, whother business interruptors, loss of use, or loss of profits incurred by client, its subsidiaries, afflicate or successor arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

		5) 393-2326	Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326	† Cardinal cannot accept verbal cl
		CHECKED BY:	H. H. Cool Intact Ves LYes No No	Sampler - UPS - Bus - Other:
Rush				
No Add'I Fax #:	□ Yes	PMO REN	Time 2:05 Ulu Ulu	M Q SLOPPLI
	Yes	toris, loss of use, or loss of profits incurred by client, its subsidiaries beim is based upon any of the above stated reasons or otherwise. Phone Result	Services hereunder by Cardinal, regardless of whether such chaim is b Date: Received By:	atfliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such Relinquished By: Date: Received By: Date: Received By: R
	client for the	tort, shall be limited to the amount paid by the ceived by Cardinal within 30 days after compl	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for ary claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for nogligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the apollephe service. In no event evaluation candidates the service in the service in the service in the service in the service of the apollephe service in the service of the apollephe service in the service in the service of the service of the service in the service in the service in the service of the	PLEASE NOTE: Liability and Damages. Cardinal's liability and clies analyses. All claims including those for negligence and any other ci service. In no event shall Cardinal he liable for includent
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<u><u> </u></u>	B-		ERS ATER	
	B	PRESERV. SAMPLING	MATRIX	FOR LAB USE ONLY
	1	Fax #:		Sampler Name: Marstur
	Ē,	#	14-T185-R26E	Project Location: UT, P SCC
	ĸ	State: Zip:	Line release	Project Name: ASAU Trunk
	20	City:	towner: Line Port Ref.	Project #:
		SS:		Phone #: 57.365 56 34 Fax #:
		Attn: Mike Barret	te: NM Zip: 88210	city: Aitesin
	RC	Company: Ling Rock	1374	Address: Zyll South
	>	P.O. #:	*	Project Manager: Mike Stubble fiel
ANAI VOIS DECLIEST	A second se	BILL TO	Consultants	RT. Hidde
			(575) 393-2476	(575) 393-2326 FAX (575) 393-2476
			lobbs, NM 88240	101 East Marland,
			lobbs, NM 88240	101 East Marland, Hobbs, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Laboratories