

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
10014 SCR 1213  
Midland, TX 79706**



# Analytical Report

**Prepared for:**

Ben Arguijo  
Basin Environmental Services  
P.O. Box 301  
Lovington, NM 88260

Project: Former Maljamar Station  
Project Number: HDO-95-61 Former Maljamar Station  
Location: Eddy Co., NM  
Lab Order Number: 6B05015



**NELAP/TCEQ # T104704156-13-3**

Report Date: 02/08/16

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Project Manager: Ben Arguijo

Fax: (505) 396-1429

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Caliche Stockpile # 20	6B05015-01	Soil	02/02/16 10:00	02-05-2016 14:14

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**Caliche Stockpile # 20**

**6B05015-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.0217	mg/kg dry	20	P6B0806	02/08/16	02/08/16	EPA 8021B	
<b>Toluene</b>	<b>0.185</b>	0.0435	mg/kg dry	20	P6B0806	02/08/16	02/08/16	EPA 8021B	
<b>Ethylbenzene</b>	<b>1.14</b>	0.0217	mg/kg dry	20	P6B0806	02/08/16	02/08/16	EPA 8021B	
<b>Xylene (p/m)</b>	<b>2.28</b>	0.0435	mg/kg dry	20	P6B0806	02/08/16	02/08/16	EPA 8021B	
<b>Xylene (o)</b>	<b>0.720</b>	0.0217	mg/kg dry	20	P6B0806	02/08/16	02/08/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		123 %	75-125		P6B0806	02/08/16	02/08/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		71.2 %	75-125		P6B0806	02/08/16	02/08/16	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>14.7</b>	1.09	mg/kg dry	1	P6B0804	02/05/16	02/08/16	EPA 300.0	
<b>% Moisture</b>	<b>8.0</b>	0.1	%	1	P6B0801	02/08/16	02/08/16	% calculation	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>55.6</b>	27.2	mg/kg dry	1	P6B0805	02/05/16	02/05/16	TPH 8015M	
<b>&gt;C12-C28</b>	<b>658</b>	27.2	mg/kg dry	1	P6B0805	02/05/16	02/05/16	TPH 8015M	
<b>&gt;C28-C35</b>	<b>140</b>	27.2	mg/kg dry	1	P6B0805	02/05/16	02/05/16	TPH 8015M	
Surrogate: 1-Chlorooctane		91.9 %	70-130		P6B0805	02/05/16	02/05/16	TPH 8015M	
Surrogate: o-Terphenyl		96.5 %	70-130		P6B0805	02/05/16	02/05/16	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>853</b>	27.2	mg/kg dry	1	[CALC]	02/05/16	02/05/16	calc	

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**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P6B0806 - General Preparation (GC)**

**Blank (P6B0806-BLK1)**

Prepared & Analyzed: 02/08/16

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0321		"	0.0600		53.5	75-125			S-GC
Surrogate: 4-Bromofluorobenzene	0.0661		"	0.0600		110	75-125			

**LCS (P6B0806-BS1)**

Prepared & Analyzed: 02/08/16

Benzene	0.0855	0.00100	mg/kg wet	0.100		85.5	70-130			
Toluene	0.0926	0.00200	"	0.100		92.6	70-130			
Ethylbenzene	0.108	0.00100	"	0.100		108	70-130			
Xylene (p/m)	0.186	0.00200	"	0.200		93.0	70-130			
Xylene (o)	0.112	0.00100	"	0.100		112	70-130			
Surrogate: 4-Bromofluorobenzene	0.0634		"	0.0500		127	75-125			S-GC
Surrogate: 1,4-Difluorobenzene	0.0485		"	0.0500		97.0	75-125			

**LCS Dup (P6B0806-BSD1)**

Prepared & Analyzed: 02/08/16

Benzene	0.0867	0.00100	mg/kg wet	0.100		86.7	70-130	1.37	20	
Toluene	0.0942	0.00200	"	0.100		94.2	70-130	1.71	20	
Ethylbenzene	0.115	0.00100	"	0.100		115	70-130	5.98	20	
Xylene (p/m)	0.196	0.00200	"	0.200		98.1	70-130	5.35	20	
Xylene (o)	0.119	0.00100	"	0.100		119	70-130	5.95	20	
Surrogate: 4-Bromofluorobenzene	0.0652		"	0.0500		130	75-125			S-GC
Surrogate: 1,4-Difluorobenzene	0.0449		"	0.0500		89.7	75-125			

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P6B0801 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P6B0801-BLK1)</b>		Prepared & Analyzed: 02/08/16								
% Moisture	ND	0.1	%							
<b>Duplicate (P6B0801-DUP1)</b>		<b>Source: 6B05005-02</b>		Prepared & Analyzed: 02/08/16						
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P6B0801-DUP2)</b>		<b>Source: 6B05005-03</b>		Prepared & Analyzed: 02/08/16						
% Moisture	5.0	0.1	%		6.0			18.2	20	

**Batch P6B0804 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P6B0804-BLK1)</b>		Prepared: 02/05/16 Analyzed: 02/08/16								
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P6B0804-BS1)</b>		Prepared: 02/05/16 Analyzed: 02/08/16								
Chloride	209	1.00	mg/kg wet	200		105	80-120			
<b>LCS Dup (P6B0804-BSD1)</b>		Prepared: 02/05/16 Analyzed: 02/08/16								
Chloride	208	1.00	mg/kg wet	200		104	80-120	0.531	20	
<b>Duplicate (P6B0804-DUP1)</b>		<b>Source: 6B04004-01</b>		Prepared: 02/05/16 Analyzed: 02/08/16						
Chloride	1100	5.88	mg/kg dry		1090			0.558	20	
<b>Matrix Spike (P6B0804-MS1)</b>		<b>Source: 6B04004-01</b>		Prepared: 02/05/16 Analyzed: 02/08/16						
Chloride	3180	5.88	mg/kg dry	2350	1090	88.8	80-120			

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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P6B0805 - TX 1005**

**Blank (P6B0805-BLK1)**

Prepared & Analyzed: 02/05/16

C6-C12	52.3	25.0	mg/kg wet							
>C12-C28	81.3	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	91.6		"	100		91.6	70-130			
Surrogate: o-Terphenyl	46.9		"	50.0		93.8	70-130			

**LCS (P6B0805-BS1)**

Prepared & Analyzed: 02/05/16

C6-C12	17.7	25.0	mg/kg wet	1000		1.77	75-125			
>C12-C28	32.6	25.0	"	1000		3.26	75-125			
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	56.7		"	50.0		113	70-130			

**LCS Dup (P6B0805-BSD1)**

Prepared & Analyzed: 02/05/16

C6-C12	27.4	25.0	mg/kg wet	1000		2.74	75-125	43.2	20	
>C12-C28	40.8	25.0	"	1000		4.08	75-125	22.4	20	
Surrogate: 1-Chlorooctane	91.2		"	100		91.2	70-130			
Surrogate: o-Terphenyl	47.5		"	50.0		94.9	70-130			

**Matrix Spike (P6B0805-MS1)**

Source: 6B04008-01

Prepared & Analyzed: 02/05/16

C6-C12	782	26.9	mg/kg dry	1080	ND	72.7	75-125			QM-05
>C12-C28	910	26.9	"	1080	178	68.1	75-125			QM-05
Surrogate: 1-Chlorooctane	121		"	108		112	70-130			
Surrogate: o-Terphenyl	53.3		"	53.8		99.2	70-130			

**Matrix Spike Dup (P6B0805-MSD1)**

Source: 6B04008-01

Prepared & Analyzed: 02/05/16

C6-C12	811	26.9	mg/kg dry	1080	ND	75.4	75-125	3.71	20	
>C12-C28	940	26.9	"	1080	178	70.9	75-125	4.03	20	QM-05
Surrogate: 1-Chlorooctane	124		"	108		116	70-130			
Surrogate: o-Terphenyl	59.9		"	53.8		111	70-130			

### Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:



Date:

2/8/2016

Brent Barron, Laboratory Director/Technical Director

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