NM1 - _23___

5 Year VZ MONITORING REPORT

YEAR(S):

___2014___

GL Environmental, Inc.



August 19, 2014

Brad Jones, Environmental Engineer New Mexico Oil Conservation Division Energy Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505

RE: J&L Landfarm 2014 Vadose Zone Monitoring Report

Mr. Jones:

Please find the attached J&L Landfarm Soil Sampling Analytical Results Summary Report that presents the results of soil samples collected from beneath the landfarm cells as part of the five-year vadose zone monitoring demonstration and follow-up sampling and analysis required in response to the J&L Landfarm 3rd Quarter vadose zone monitoring results. This report also includes commitments as part of a response action plan required under Paragraph (5) of 19.15.36.15.E NMAC.

If you have any questions or need further information please contact either Skip Tabor with J&L Landfarm at (505) 250-3981, <u>taborskip505@gmail.com</u> or Matthew Lane with GL Environmental, Inc. at (505) 454-0830, <u>glmatt@flash.net</u>.

Regards,

Matthew Lane

GL Environmental, Inc.

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421 Bibb Industrial Drive or PO Box 1746 Las Vegas, New Mexico 87701

Soil Sampling Analytical Result Summary J&L Landfarm NMOCD Permit NM-01-0023

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PREPARED FOR:

J&L Landfarm

August 19, 2014

BY:



GL Environmental, Inc. P.O. Box 1746 Las Vegas, NM 87701 (505) 454-0830 · · ·

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Introduction

This report has been generated by GL Environmental, Inc. in response to the letter from New Mexico Oil Conservation Division (NMOCD) representative Mr. Brad Jones that was addressed to J&L Landfarm and dated April 10, 2014. This report summarizes the analytical results of soil samples collected from beneath the landfarm cells as part of the five-year vadose zone monitoring demonstration and follow-up sampling and analysis required in response to the J&L Landfarm 3rd Quarter vadose zone monitoring results. This report also includes commitments as part of a response action plan required under Paragraph (5) of 19.15.36.15.E NMAC.

The J&L Landfarm is located in the N ½ of the N ½ of Section 9 and the N ½ of the N ½ of Section 10, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico (Figure 1). The facility is operated under NMOCD Permit NM-1-23.



Figure 1. Location Map

GL Environmental, Inc.

Description of Sampling Activities

Included in this report are the analytical results from the 2013 quarterly vadose zone monitoring conducted in August 2013, the five-year vadose zone monitoring conducted in June and July 2014, and additional follow-up monitoring of selected landfarm cells conducted in June and July 2014. The vadose soil samples were collected by J&L Landfarm representative Skip Tabor with the aid of a tractor mounted auger from 2-3 feet below the original surface of the landfarm cells. Samples were collected and shipped under standard chain-of-custody procedure to Summit Environmental Technologies, Inc. and Hall Environmental Analysis Laboratory for analysis. Due to the nature of auguring through unconsolidated material, with the resulting sloughing off of overlying soils, some contamination may have occurred during the collection of samples from the desired depth. Future sampling efforts will attempt to collect discrete samples from the intended depth.

Baseline soil analyte concentrations are the result of a composite soil sample collected by J&L Landfarm personnel in March, 1999 and analyzed by Cardinal Laboratories, Inc.



Figure 2. Site Map

J & L Landfarm - Site Map Property Boundary Treatment cell





GL Environmental, Inc.

Analytical Results

A summary of analytical results from additional follow-up monitoring of selected landfarm cells conducted in June and July 2014 as requested in the April, 2014 NMOCD letter are presented in Table 1. The table includes a comparison of the results to baseline analyte concentrations. A list of analytical results results resulting from the five year vadose zone monitoring has been included in Attachment 1.

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ND ND<		ND	ND	ND			ND	-	· ·	26	15	ND	74	170	ND	27	1.4	2800	ND	10	ND	ND	63	· ·			·						
ND ND<		ND	ND	ND	ND	ND	ND	143	ND	20	62.3	ND	ND	73	ND	7	1.4	5500	ND	17	ND	ND	ND	34000	1700		1600	480	51.4	97	ND	124	8/30/2013
30 ND Add ND 78 390 ND 13 ND ND ND .<		ND	ND	ND	1.1	1.10	ND	115		ND	210	ND	71	290	ND	15	12	1600	ND	24	ND	ND	41	21000		-				Part			200.2015
ND ND ND ND 440 ND 78 390 ND 13 0.87 1200 ND ND ND .	30	ND	ND	ND			ND	1		ND	34	ND	3.9	150	ND	29	1.3	3100	ND	32	ND	ND	7			-					-		
ND ND ND ND 46 100 ND 64 600 ND 28 23 2600 ND 39 ND ND 7.5		ND	ND	ND			ND	1		ND	440	ND	7.8	390	ND	1.3	0.87	1200	ND	13	ND	ND	3										6/10/2014
		ND	ND	ND			ND	1.		46	100	ND	6.4	600	ND	2.8	2.3	2600	ND	39	ND	ND	7.5										

Table 1. Vadose Zone Monitoring Results

GL Environmental, Inc.

Soil Sampling Result Summary

J&L Landfarm

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Cell	Benzene	Toluene	Ethylbenzene	m-p Xylene	o-Xylene	Xyelene - T	TPH - DRO	TPH - GRO	TPH - TR	Chloride	Mercury	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Selenium	Silver	Zinc	Calcium	Magnesium	Phosphorous	Potassium	Sodium	Fluoride	Nitrate	Phosphate	Sulfate	Date Sampled
	ND	ND	ND	ND	ND		ND	ND		396	ND	ND	120	ND	10		5600	ND		ND	ND	ND	40000	5700		3200	1400	37.4	0.8	ND	392.8	8/29/2013
	ND	ND	ND			ND			64	210	ND	3.5	99	ND	4.5	3.2	5400	0.87	66	ND	ND	11										
31	ND	ND	ND	1.0		ND			37	160	0.12	3,5	94	ND	4.6	3.1	5300	0.74	63	ND	ND	12			1							6/2/2014
	ND	ND	ND			ND			ND	2000	ND	8.1	170	ND	2.3	2	2700	ND	27	ND	ND	4.8										0/3/2014
	ND	ND	ND			ND			ND	660	ND	3.6	140	ND	3.8	2.5	4500	ND	48	ND	ND	9.1	4									
	ND	ND	ND	ND	ND		ND	ND		310	ND	ND	130	ND	6.2		4100	ND		ND	ND	ND	62000	3000		1600	1200	21.3	16.8	ND	1770.6	8/29/2013
	ND	ND	ND			ND			290	110	ND	3.8	99	ND	4.5	3.5	5600	0.88	61	ND	ND	12										
32	ND	ND	ND			ND			28	ND	ND	5.7	310	ND	1.7	1.3	1700	ND	18	ND	ND	4.5										6/10/2014
	ND	ND	ND			ND			23	21	ND	5.7	370	ND	2.3	1.9	2300	ND	32	ND	ND	6.4					1					0/10/2014
	ND	ND	ND			ND			ND	33	ND	ND	88	ND	9.9	6.3	11000	3.2	160	ND	ND	30							1			
	ND	ND	ND	ND	ND		ND	ND		163.6	ND	ND	36	ND	5		4400	ND		ND	ND	ND	13000	2100		1300	580	25	19	ND	96.4	8/29/2013
	ND	ND	ND			ND			ND	59	ND	6.6	410	ND	1.6	0.66	1600	ND	15	ND	ND	3.8										
33	ND	ND	ND			ND			75	71	ND	6.5	760	ND	2.7	2.2	2800	ND	36	ND	ND	7.1								4		6/10/2014
	ND	ND	ND			ND			27	660	ND	7.4	600	ND	1.8	1.1	1700	ND	23	ND	ND	5							-			0/10/2014
	ND	ND	ND			ND			ND	220	ND	5.8	340	ND	23	13	2200	ND	29	ND	ND	59										1

Table 2. Vadose Zone Monitoring Results (continued)

Response Action Plan

J&L Landfarm proposes the following steps as part of a Response Action Plan required under Paragraph (5) of 19.15.36.15.E NMAC.

- Develop a facility operational plan in order to prevent environmental contamination that will include written procedures for accepting petroleum hydrocarbon contaminated soils, soil management (lift thickness, disking, etc.), stormwater management, regulatory compliance monitoring and employee training
- Completion of any additional compliance monitoring while employing sampling procedures that will collect discrete samples from the intended depth
- Schedule a meeting with the NMOCD to discuss the results of recent monitoring activity
 presented in this report and determine future actions to characterize any potential releases at the
 J&L Landfarm facility and propose a strategy for remediating existing contamination (if
 necessary).

Attachment 1 – J&L Landfarm Five Year Vadose Zone Monitoring

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Soil Sampling Result Summary

			ne	1	T			Te																-	SI			1		1		
Sample ID	Benzene	Toluene	Ethylbenzer	m-p Xylene	o-Xylene	Xyelene - T	TPH - DRO	TPH - GRO	TPH - TR	Chloride	Mercury	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Selenium	Silver	Zinc	Calcium	Magnesium	Phosphorou	Potassium	Sodium	Fluoride	Nitrate	Phosphate	Sulfate	Date
Baseline	<0.002	<0.002	<0.00	2 .	1.	<0.002			11	95	<0.002	1.15	<5	1.25	<1			<1		0.25	4.15		282	83		150	0			1.	0	3/26/199
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	240	ND	8.1		6500	ND		ND	ND	26	23000	3300		3400	380	49.9	35.6	2.2	197	8/20/201
											ND	ND	67	ND	5.4	2.8	5400	2.1	68	ND	ND	13										
Cell#1											ND	ND	43	ND	4.6	0.5	2 4300	ND	28	ND	ND	9										6/26/2014
											ND	ND	61	ND	5.2	2.8	5200	2	66	ND	ND	13										020.201
					1	1					ND	ND	57	ND	4.4	0.5	9 4100	1.3	37	ND	ND	8.5										
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	160	ND	4.7		3800	ND		ND	ND	10	160000	9200		2900	400	132.2	5.9	ND	60.2	8/20/2013
											ND	ND	100	ND	4.5	1.2	4200	ND	68	ND	ND	10										
Cell #2											ND	ND	36	ND	9	0.4	2 9400	ND	42	ND	ND	19										6/26/2014
											ND	ND	91	ND	4.1	0.9	9 3700	ND	62	ND	ND	9.3										
											ND	ND	40	ND	9.6	0.5	1000	0 ND	45	ND	ND	21										
	ND	ND	ND	ND	ND	1	ND	ND		122.6	ND	ND	86	ND	6.9		460	ND		ND	ND	19	51000	3800		2400	440	32.5	8.2	ND	23.1	8/20/2013
	ND	ND	ND		·	ND		· ·	ND	110	ND	ND	76	ND	4.5	0.4	3700	0.42	23	ND	ND	7.3								· ·		
Cell #3	ND	ND	ND		+ ·	ND		· ·	ND	280	ND	3.5	100	ND	3.6	1.1	3100	0.33	49	ND	ND	6.6								· ·		6/11/2014
	ND	ND	ND		+ ·	ND	· ·		ND	290	ND	ND	83	ND	5.2	0.4	8 5300	ND	44	ND	ND	9.7								· ·		
	ND	ND	ND			ND			ND	300	ND	ND	76	ND	9.3	0.74	4 1100	ND ND	49	ND	ND	19	-				270			1		0/00/0012
	ND	ND	ND	ND	ND		ND	ND		63.2	ND	ND	80	ND	ND		3600	ND		ND	ND	11	75000	2800		2200	350	28.4	16.9	ND	51	8/20/2013
0.11.11.1			· · ·		+ .			+ .			ND	ND	45	ND	2.9	0.5	2 2500	0.25	42	ND	ND	3.6					· · ·			1 .		
Cell #4				+ ·	+ ·	· · · ·		+ · ·			ND	ND	96	ND	3.6	0.5	3100	0.32	46	ND	ND	0.8	· · · · ·							+		6/26/2014
				+ -				+ -	· ·		ND	ND	49	ND	3.1	0.8	2600	0.31	42	ND	ND	5.9		· · ·						+ -		
		1	3.00	1200	1 2 11-		1.	1	·		ND	ND	81	ND	3.4	0.3	2400	0.39	42	ND	ND	7.0	\$2000	2200		1100	200	010	26	NTD	50.0	8/10/201/
	ND	ND	ND	IND	IND		IND	IND		ND	ND	ND	120	IND	31	07	2400	ND 24	27	ND	ND	1.0	52000	4300		1100	200	0.00	3.0	10	32.7	a 13/2013
0-1145	· · · ·		· · ·		+·	· · ·	· · ·	· ·	· ·		ND	ND	139	ND	3.1	0.7	2800	0.30	21	ND	ND	0		· · · ·						+ -		
001#5					-		1 -	+ ·	· ·		ND	ND	110	ND	22	0.0	2 2000	0.55	34	ND	ND	6								· ·		6/26/2014
	· · ·			+ .	+ -		+ ·	···	· ·		ND	ND	76	ND	24	0.6	2000	0.30	20	ND	ND	60			-		-			· ·		
	MD	ND	NTD	NTO	ND		NID	ND	·	ND	ND	ND	100	ND	66	0.0	4900	NTD	35	ND	ND	16	85000	3700		2700	350	525	148	ND	2228	8/19/2013
	ND	ND	ND	IND	ND		IND	IND		IND	ND	ND	61	ND	10.0	112	3700	ND	11	ND	ND	8	0,000	5100		2100	3.0	al da cal	4.0	10	Justiche (O	017/201.
Cell #6			· · ·	·	+ ·			· ·			ND	ND	160	ND	27	0.0	1 3100	ND	26	ND	ND	7		· ·		· · ·				+ -		
Cell #0											ND	ND	63	ND	41	14	3800	ND	44	ND	ND	87								·		6/26/2014
					+		· ·	· ·			ND	ND	1.90	ND	3.0	1.4	3200	ND	31	ND	ND	73		· · ·	-		· ·	· · ·	· ·	+		
	ND	ND	ND	MD	ND	·	ND	ND	·	1781	ND	ND	100	ND	78	1.4	4800	ND	51	ND	ND	15	21000	2600		2200	450	93.1	71	ND	35.5	8/19/2012
	ND	ND	ND	IND	140	ND	In	Tab	38	100	ND	ND	76	ND	41	113	3900	0.73	41	ND	ND	8.7	-1000	2000		A= 00	450	2018	1.4	1.00		GIMEOIL
Cell #7	ND	ND	ND	1.	-	ND			ND	440	ND	66	300	ND	16	21	1100	ND	17	ND	ND	36			-							1
Conni	ND	ND	ND	+	+ ·	ND	1	+	43	57	ND	93	310	ND	19	11	1600	ND	17	ND	ND	4.8			-				1	1		6/11/2014
	ND	ND	ND	+ ·	· ·	ND			ND	50	ND	ND	83	ND	45	1.9	4600	0.82	50	ND	ND	9.8							1	1		1
	ND	ND	ND	ND	MD		ND	ND	TU	ND	ND	ND	310	ND	6	1.0	3100	ND		ND	ND	11	67000	4400		1500	210	148	3.3	ND	50.8	8/19/2013
	nu	100	100	Tel	IVIL		110	10		10	ND	ND	140	ND	4.5	2.4	4900	ND	67	ND	ND	12			-					1		
Cell #8				+	+ ·			<u> </u>			ND	ND	150	ND	2.9	111	2500	ND	32	ND	ND	6										
				1	1	1	1	1			ND	ND	110	ND	5.1	2.6	5700	ND	74	ND	ND	14								1		6/26/2014
				1		1	1	1			ND	ND	180	ND	2.5	1.1	2000	ND	27	ND	ND	5.5							1.	1.		
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	65	ND	5	1	3300	ND		ND	ND	10	62000	2400		1700	420	73.6	3	ND	86.2	8/19/2013
				1.		1.	1.	1.			ND	ND	68	ND	4.8	1.7	4300	ND	51	ND	ND	11										
Cell #9				1.	1.		1.				ND	ND	69	ND	3.8	0.3	7 3400	ND	34	ND	ND	7.6										
				1.							ND	ND	83	ND	4.7	1.5	4200	ND	48	ND	ND	10										· ·
											ND	ND	68	ND	4.4	ND	4000	ND	29	ND	ND	9.3		I	.							
	ND	ND	ND	ND	ND		ND	ND	L. elli	ND	ND	ND	70	ND	6		4000	ND		ND	ND	12	58000	3300		2200	300	89.8	2.9	ND	45.8	8/19/2013
					4		1.				ND	ND	110	ND	5.7	1.7	5800	ND	46	ND	ND	13										
Cell#10											ND	ND	79	ND	3,7	1.1	3600	ND	38	ND	ND	8										6/26/2014
											ND	ND	62	ND	3.9	1.1	3800	0.41	39	ND	ND	8.2										0 20 201
					1.						ND	ND	83	ND	6.1	1.9	6300	ND	51	ND	ND	14										
								1.			ND	ND	50	ND	4.7	1.1	5000	ND	38	ND	ND	9.5		· · ·								-
Cell #11					1.		· ·	1			ND	ND	47	ND	6.3	0.4	5 7600	ND	38	ND	ND	12								+ ·		6/26/2014
											ND	ND	49	ND	4.7	1.1	5400	ND	40	ND	ND	9.5										
											ND	ND	51	ND	6.6	0.5	8 7900	ND	38	ND	ND	13	-			-				· ·	105.1	0/07/0011
	ND	ND	ND	ND	ND		ND	ND	· · ·	173.8	ND	ND	140	ND	7.4		5100	ND		ND	ND	ND	70000	2800	100	2000	1100	81.4	8.9		193.1	8/2//2013
0.11.000	ND	ND	ND			ND	+ .	· ·	770	220	ND	ND	60	ND	ND	4.2	5700	13	65	ND	ND	12										
Cell #12	ND	ND	ND	+ -	+ -	ND		· ·	46	ND	ND	ND	58	ND	43	2.3	5200	98.3	59	ND	ND	11		· · · ·	· ·				· ·	+		6/2/2014
	ND	ND	ND	+ -		ND	· ·	· ·	ND	49	ND	ND	69	ND	5.8	3.3	4500	1.1	02	ND	ND	9.1	· · · · ·									
	ND	ND	ND		200	ND	· NTD	1 MID	ND	200 NID	ND	ND	43	ND	6.7	4.2	3000	1./	92	ND	ND	1/	47000	2500	110	1000	800	50.0	2		22.1	8/27/2013
	ND	ND	ND	IND	IND		ND	IND		ND	ND	ND	200	ND	1.0	1 2 2	200	I O 25	110	ND	ND	SC.	47000	6300	110	1900	000	50.8	3		26.1	012/1201
Cell #13				+	+		+ .	+-			ND	ND	230	ND	1.7	1.5	1600	NT	19	ND	ND	5.0	· · ···							-		1
Cen#15				+							ND	ND	370	ND	14	0.9	5 1300	ND	10	ND	ND	37	· · · · ·							1		6/19/2014
				+	1		+	+			ND	ND	120	ND	14	0.0	1 1200	ND	11	ND	ND	30	· · · ·	· · ·					-	1	· · · ·	1
	ND	ND	ND	NID	NID		ND	NID	·	1972.0	ND	ND	440	ND	12	0.1	8600	ND	11	ND	ND	ND	120000	19000	150	4200	7400	917	35	1	1406.6	8/27/2013
	ND	ND	ND	IND	IND	ND	TAD	THE	190	420	ND	ND	200	ND	25	1 4	2400	NT	20	ND	ND	51	120000	17000	1.50	THUN	1400	14.1	200	-	1400.0	0 2/1201
Cell#14	ND	ND	ND	+		MD			100	4200	ND	ND	140	ND	hen	1.2	4500	0.27	20	ND	ND	10								-		
Con // 14	ND	ND	ND		1	MD	+	+	ND	3000	ND	31	171	ND	0	120	0700	11	64	ND	ND	20										6/2/2014
	ND	ND	ND	+	1	ND	· ·		220	42	ND	ND	160	ND	40	2.0	5400	1.1	52	ND	ND	11			·					1		
	ND	ND	IND	. NT	-	ND	NID	NTD.	-20	4Z	ND	ND	100	MD	11	2.1	9700	1.J	32	ND	ND	ND	3600	2600		2800	720	152.4	20		27.2	8/27/201
	ND	ND	ND	IND	UND		ND	IND		ND	ND	ND	100	ND	11	1.4	2700	ND	20	ND	ND	67	3000	2000	0.7	2000	120	1.32.4	2.0		41.0	0 2/1201.
Cell#15			·	+ -	+	1	+ · ·	· ·		· · ·	ND	ND	210	ND	20	1.0	2700	ND	34	ND	ND	6.0		·					-			1
Con#15					-					•	ND	ND	200	ND	2.0	0.7	1 1900	ND	15	ND	ND	51			·				1	-		6/19/2014
				+	1.		+				ND	ND	240	NID	16	0.0	1 1 500	MD	12	ND	ND	42					· · ·					1
				1							1761 2	1211	1000			I D)				1111	1 101 J											

GL Environmental, Inc.

August 19, 2014

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Soil Sampling Result Summary

			ne				-	10																-	SIL						_	
mple ID	lenzene	oluene	thylbenzei	1-p Xylene	-Xylene	(yelene - T	PH - DRO	PH - GRO	PH - TR	Chloride	Aercury	rsenic	sarium	admium	hromium	Copper	ron	ead	Aanganese	elenium	llver	dinc	alcium	Aagnesium	hosphoro	otassium	odium	luoride	litrate	hosphate	ulfate	D
infre in	ND	ND	ND	ND	ND	K	ND	ND	F	76.4	ND	ND	47	ND	6	10	3500	ND	~	ND	ND	ND 3	19000	5300	110	1800	530	234 6	16	P	40.1	8/28
											ND	ND	99	ND	3.8	2.1	4200	0.39	42	ND	ND	9.8							1.			1
ell #16											ND	ND	44	ND	4.7	2	6600	1.4	67	ND	ND	15										6/10
											ND	ND	32	ND	5.3	1.9	6600	1.3	71	ND	ND	16										0/19/
											ND	ND	32	ND	4.8	1.8	5400	1.3	58	ND	ND	14										1
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	34	ND	6		4700	ND		ND	ND	ND 1	1900	1400	80	1600	600	132.4	6.1		124.2	8/28/
											ND	ND	210	ND	2.1	1.4	2200	ND	23	ND	ND	6										
ell #17											ND	ND	200	ND	1.9	1.4	2200	ND	23	ND	ND	5.3										6/19
											ND	ND	66	ND	6	2.7	6700	1.1	61	ND	ND	15										
											ND	ND	53	ND	5.3	2.4	6800	0.89	55	ND	ND	14										
				1.																												
											ND	ND	45	ND	3.3	1.5	3900	1.1	51	ND	ND	8.9										-
ell #18											ND	ND	27	ND	3	1.6	3300	1.2	39	ND	ND	13										6/19/
											ND	ND	32	ND	3.7	1.6	4200	0.99	43	ND	ND	9.9										-
							1 .				ND	ND	51	ND	3.8	1.9	4100	0.62	41	ND	ND	9.8										
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	36	ND	6.4		5000	ND		ND	ND	ND :	3200	1400	90	1700	650	20.8	9.3		217.1	8/28
					· .						ND	ND	370	ND	1.6	1.7	1300	ND	22	ND	ND	4.7										-
ell#19				1.				1.			ND	ND	360	ND	1.5	1.0	1200	ND	18	ND	ND	4.2										-
											ND	ND	81	ND	6	3.1	6400	0.74	72	ND	ND	21										-
				1.				1.			ND	ND	76	ND	5.8	2.5	6200	0.92	72	ND	ND	20										-
	ND	ND	ND	ND	ND		ND	ND		83.2	ND	ND	70	ND	5.6		3500	ND		ND	ND	ND 8	8800	1600	83	1300	780	41.7	11.2		66	8/2
				1.				1.			ND	ND	150	ND	4.1	4.6	4100	3.4	63	ND	ND	15										-
1#20								1.	· ·		ND	ND	79	ND	4.6	3.6	4700	0.69	65	ND	ND	11										6/2
								1.			ND	ND	140	ND	3.9	4.8	4300	3.5	62	ND	ND	17										-
				1.							ND	ND	83	ND	4	3.4	4100	0.8	66	ND	ND	13										-
	ND	ND	ND	ND	ND		ND	ND		145.6	ND	ND	68	ND	9,4		8300	ND		ND	ND	ND 2	1000	3600	140	2900	830	62.8	22.7		112.5	8/2
	ND	ND	ND			ND			91	55	ND	ND	82	ND	4.6	3.2	5500	1.3	64	ND	ND	11										-
1#21	ND	ND	ND			ND			2500	690	ND	ND	72	ND	4.3	2.5	5100	3.1	54	ND	ND	14										6/2
	ND	ND	ND			ND			69	160	ND	ND	110	ND	4.3	3	5100	1.7	51	ND	ND	12										
	ND	ND	ND			ND			440	54	ND	ND	76	ND	76	2.3	4900	1.7	49	ND	ND	12										
	ND	ND	ND	ND	ND		88.6	ND		112.4	ND	ND	45	ND	4.1		2500	ND		ND	ND	ND 3	0000	2900	60	880	460	115.7	7.1		170.8	8/2
	ND	ND	ND			ND			200	120	ND	ND	47	ND	5	3.3	5700	1.5	66	ND	ND	12										
1#22	ND	ND	ND		1	ND			48	ND	ND	ND	65	ND	4.3	2.2	5500	3.8	58	ND	ND	11										
	ND	ND	ND			ND			ND	48	ND	2.8	80	ND	3.5	3.1	4000	1.2	56	ND	ND	8.4										
	ND	ND	ND			ND			ND	160	ND	ND	41	ND	6.3	3.8	7700	1.7	91	ND	ND	16								· .		
	ND	ND	ND	ND	ND		738	ND		98.7	ND	ND	19	ND	2.6		1600	ND		ND	ND	ND	7600	790	38	400	300	95.4	6.3		66.9	8/2
	ND	ND	ND			ND			ND	410	ND	ND	38	ND	4.4	2.5	4300	1.1	61	ND	ND	12										
1#23	ND	ND	ND			ND			ND	160	ND	6.4	200	ND	2.4	2.1	2200	ND	28	ND	ND	6.2										611
	ND	ND	ND	1.		ND		1.	130	170	ND	4.3	160	ND	3.4	2.7	3600	1.1	42	ND	ND	9.4	.] 01
	ND	ND	ND			ND			23	1100	0.072	ND	44	ND	6	3.7	7100	1.8	82	ND	ND	16										1
	ND	ND	ND	ND	ND		ND	ND		117	ND	ND	100	ND	4.1		3500	ND		ND	ND	ND 6	4000	1700	62	1300	820	61.9	42.1		73.6	8/2
	ND	ND	ND						180	120	ND	ND	39	ND	6	1.5	4300	1.2	42	ND	ND	12										
1#24	ND	ND	ND					1.	240	46	ND	ND	77	ND	8.3	5.1	11000	3.4	120	ND	ND	22										
	ND	ND	ND						110	140	ND	ND	60	ND	6.7	4.8	8000	4.4	110	ND	ND	19										
	ND	ND	ND						47	31	ND	ND	56	ND	5.6	4	6300	1.7	86	ND	ND	16										
	ND	ND	ND	ND	ND		ND	ND		112.8	ND	ND	36	ND	6.2		4900	ND		ND	ND	ND 3	3500	1500	80	1600	710	91.2	2.9		44.6	8/2
	ND	ND	ND	1.		ND	1.		ND	68	ND	ND	79	ND	5.5	4.3	7200	3.4	96	ND	ND	18	.									
1#25	ND	ND	ND			ND			75	38	ND	ND	89	ND	4.5	3.3	5600	2.1	58	ND	ND	14		.	.							
	ND	ND	ND			ND			23	22	ND	ND	76	ND	6.8	5.2	9100	2.7	100	ND	ND	18										1
	ND	ND	ND	1.		ND		1.	130	520	ND	ND	44	ND	7	4	9100	1.8	89	ND	ND	17										1
	ND	ND	ND	ND	ND		259	ND		73.7	ND	ND	68	ND	6.8		4100	ND	1	ND	ND	ND 5	8000	2800	65	1400	850	26.6	9.7		96.8	8/2
	ND	ND	ND			ND			29	150	ND	8.5	230	ND	1.5	1.2	1500	ND	14	ND	ND	4.4										
1#26	ND	ND	ND			ND			24	16	ND	6.6	190	ND	1.9	1	1900	ND	19	ND	ND	4.7									-	6In
	ND	ND	ND			ND			ND	16	ND	7.6	220	ND	2.7	1.4	2800	ND	18	ND	ND	6.3										orl
_	ND	ND	ND			ND			26	15	ND	7.4	170	ND	2.7	1.4	2800	ND	19	ND	ND	6.3							1.1			
	ND	ND	ND	ND	ND	1.	ND	ND		ND	ND	ND	150	ND	5.2		3700	ND		ND	ND	ND 3	9000	2100	68	1400	660	N	11.3		296.8	8/2
											ND	ND	140	ND	5.2	1.6	5500	ND	45	ND	ND	12										
#27							1 2				ND	ND	240	ND	1.6	1.3	1600	ND	13	ND	ND	4.3										6/2
				1 .							ND	ND	170	ND	4.6	1.3	5000	ND	38	ND	ND	11										1
											ND	ND	220	ND	1.6	1.2	1600	ND	13	ND	ND	4.2										
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	110	ND	6.3	1.	4900	ND		ND	ND	ND 5	5000	2000		1400	470	15.8	9	ND	381.8	8/2
											ND	ND	61	ND	3.4	ND	2800	ND	34	ND	ND	5.7										1
#28				1.				1.			ND	ND	270	ND	2.5	1.4	2200	ND	23	ND	ND	6.1										6/2
											ND	ND	63	ND	3.4	ND	2800	ND	35	ND	ND	5.6										1 32
											ND	ND	57	ND	3.4	NE	2900	ND	34	ND	ND	5.6										
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	72	ND	7		4700	ND		ND	ND	ND 3	7000	1900		1500	390	37.8	1.4	ND	40.6	8/2
											ND	ND	120	ND	6.6	4.7	7600	ND	280	ND	ND	17		.								
1#29											ND	ND	330	ND	3.1	1.9	3000	ND	39	ND	ND	8.4										1
											ND	ND	340	ND	2.6	1.7	2500	ND	32	ND	ND	6.9	. 1									0/2
							1				ND	ND	120	ND	6.4	4.4	7000	ND	170	ND	ND	16										1
	ND	ND	ND	ND	ND		143	ND	-	62.3	ND	ND	73	ND	7	1	5500	ND		ND	ND	ND 3	4000	1700		1600	480	51.4	97	ND	124	8/2
	ND	ND	ND			ND	1		ND	210	ND	71	200	ND	15	1 1	1600	ND	24	ND	ND	4.1										1
1#30	ND	ND	ND	1		ND			ND	34	ND	3.0	150	ND	20	1.2	3100	ND	32	ND	ND	7			-					-		1
	nu	THU .	ND			10			ND	54	THU IND	3.7	100	TAD	the?	1.3	1 5100	TAD	34	100	140	-	·									6/1
41150	ND	ND	NI 1			No 1			NIL	440	ND	78	2001	ND	12	108	7 1 200	ND I	12 1	ND I	ND	3 1										

Soil Sampling Result Summary

All values are r highlighted in r	eported i	n mg/kg ded base	Values	s high alues	lighte with a	ed in gre	en are	base	line d	ata. Row ND = Not	s highlig detecte	ghted i d.	n yell	ow are	2013	measu	arement	ts. Th	e ren	aining	, unhig	ghligh	ited rows	are the	four	replica	ites me	asured	in 20	14 for	each cell.	Values
Sample ID	Benzene	Toluene	Ethylbenzene	m-p Xylene	o-Xylene	Xyelene - T	TPH - DRO	TPH - GRO	TPH - TR	Chloride	Mercury	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Selenium	Silver	Zinc	Calcium	Magnesium	Phosphorous	Potassium	Sodium	Fluoride	Nitrate	Phosphate	Sulfate	Date
	ND	ND	ND	ND	ND		ND	ND		396	ND	ND	120	ND	10		5600	ND		ND	ND	ND	40000	5700		3200	1400	37.4	0.8	ND	392.8	8/29/2013
	ND	ND	ND	1.		ND	1.		64	210	ND	3.5	99	ND	4.5	3.2	5400	0.87	66	ND	ND	11										
Cell #31	ND	ND	ND			ND			37	160	0.12	3.5	94	ND	4.6	3.1	5300	0.74	63	ND	ND	12										C12/2014
	ND	ND	ND			ND			ND	2000	ND	8.1	170	ND	2.3	2	2700	ND	27	ND	ND	4.8					1					0/3/2014
	ND	ND	ND			ND			ND	660	ND	3.6	140	ND	3.8	2.5	4500	ND	48	ND	ND	9.1										-
	ND	ND	ND	ND	ND		ND	ND		310	ND	ND	130	ND	6.2		4100	ND		ND	ND	ND	62000	3000		1600	1200	21.3	16.8	ND	1770.6	8/29/2013
	ND	ND	ND			ND			290	110	ND	3.8	99	ND	4.5	3.5	5600	0.88	61	ND	ND	12										
Cell #32	ND	ND	ND	1.		ND			28	ND	ND	5.7	310	ND	1.7	1.3	1700	ND	18	ND	ND	4.5										6/10/2014
	ND	ND	ND			ND			23	21	ND	5.7	370	ND	2.3	1.9	2300	ND	32	ND	ND	6.4										0/10/2014
	ND	ND	ND			ND			ND	33	ND	ND	88	ND	9.9	6.3	11000	3.2	160	ND	ND	30	1			1						
	ND	ND	ND	ND	ND	14	ND	ND		163.6	ND	ND	36	ND	5		4400	ND		ND	ND	ND	13000	2100		1300	580	25	19	ND	96.4	8/29/2013
	ND	ND	ND			ND	· .		ND	59	ND	6.6	410	ND	1.6	0.66	1600	ND	15	ND	ND	3.8										
Cell #33	ND	ND	ND			ND			75	71	ND	6.5	760	ND	2.7	2.2	2800	ND	36	ND	ND	7.1					1.1					6/10/2014
	ND	ND	ND			ND			27	660	ND	7.4	600	ND	1.8	1.1	1700	ND	23	ND	ND	5										0/10/2014
	ND	ND	ND			ND			ND	220	ND	5.8	340	ND	2.3	1.3	2200	ND	29	ND	ND	5.9										
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	48	ND	5.6		3700	ND		ND	ND	ND	41000	3400		1300	420	13.3	10.4	ND	2485.7	8/29/2013
									1		ND	ND	440	ND	2.5	0.62	2400	ND	28	ND	ND	5.7					100					
Cell #34											ND	ND	280	ND	2.7	1.4	2500	ND	25	ND	ND	6.6										6/24/2014
											ND	ND	320	ND	3.4	1.1	3200	ND	36	ND	ND	7.6										0/24/2014
			12								ND	ND	290	ND	2.7	1.5	2500	ND	25	ND	ND	7									1.	
	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	43	ND	3.6		2100	ND		ND	ND	ND	28000	3000		660	360	130.7	6.3	ND	45.3	8/29/2013
											ND	ND	310	ND	3.4	0.59	3300	ND	21	ND	ND	7.1										
Cell #35				1							ND	ND	420	ND	1.9	0.43	1700	ND	19	ND	ND	3.9										6/24/2014
											ND	ND	250	ND	3.2	0.56	3000	ND	20	ND	ND	6.7										0242014
											ND	ND	460	ND	1.5	0.41	1300	ND	14	ND	ND	3.2										
	ND	ND	ND	ND	ND		ND	ND		93.9	ND	ND	290	ND	5.4		3400	ND		ND	ND	ND	72000	5600		1500	480	133.4	8	ND	1136.8	8/29/2013
											ND	ND	500	ND	3.9	0.61	3800	ND	31	ND	ND	8.2										
Cell #36											ND	ND	240	ND	3.9	0.59	4100	ND	29	ND	ND	8.8										6/24/2014
							1.1				ND	ND	410	ND	3.5	0.52	4100	ND	27	ND	ND	7.2										0 24 2014
		12									ND	ND	180	ND	4.1	0.59	4200	ND	31	ND	ND	9										

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Company Name:	JEL LANDF	AR	W		TA	1C												ANA	LYSI	S RE	QUES	ST				
Project Manager:	JUDYL. RO	be	1+	L'S				Ø ; ;			Č,	PO #	ł:			Τ	Γ									
Address: P.O. 1	Box 356							Col	mpa	any:	\mathcal{T}	ELLIAN	U=ARM.	We !!							1					
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Project Name: B	ACKGROUND SI	m	ple	<u>ب</u>				Pho	one	#: 2	50	5-343	9697	1										$(x,y)_{ij}$		
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analyses. All claims including the service. In no event shall Cardin	ee for negligence and any other cause what al ios liable for incidental or consequental day	oover in nages, ini	ei be o cluding	berned without	waived (finitiation	uniess r n, busin	nade in eas int	writin errupti	g and ons, k	recen loss of	ved by VSR, 1	Cardinal within or loss of profits	30 days after co incurred by clien	mpletion of nt, he subsi	the spp daries,	icable		30 en	days past d all costs	due at the of collection	o rate of 24 one, includ	1% per an Ing attorn	num from ti sy's fees.	ve original	date of low	ice,
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Sampler - UPS - E	Bus - Other:			<u>.</u>			Yes No													· .						

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.



PHONE (915) 673-7001 @ 2111 BEECHWOOD @ ABILENE, TX 79603

PHONE (505) 393-2326 @ 101 E. MARLAND @ HOBBS, NM 88240

ANALYTICAL RESULTS FOR J&L LANDFARM, INC. ATTN: JUDY L. ROBERTS P.O. BOX 356 HOBBS, NM 88241-0356 FAX TO:

Receiving Date: 03/26/99 Reporting Date: 03/29/99 Project Owner: JUDY L. ROBERTS Project Name: BACKGROUND SAMPLE Project Location: SEC 9/SEC 10 T20 R38E Sampling Date: 03/26/99 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: BC

LAB NO.	SAMPLE ID	TPH (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	BENZENE (mg/kg)	XYLENES (mg/kg)
ANALYSIS	DATE:	03/26/99	03/26/99	03/26/99	03/26/99	03/26/99
H4085-1	BACKGROUND	11.0	<0.002	<0.002	<0.002	<0.006
	COMPOSITE			1		
	۵۰ - <u>محمد می منطقی و معرفی می محمد می محمد می موجود می محمد می محمد می محمد می محمد می محمد می محمد می م</u>					
				1		
Quality Con	trol	255	0.091	0.099	0.098	0.293
True Value	QC	240	0.100	0.100	0.100	0.300
% Recovery	/	106	90.5	98.8	98.3	97.5
Relative Pe	rcent Difference	0.1	1.3	0.2	1.8	1.6

METHODS: TRPHC - EPA 600/7-79-020, 418.1; BTEX - EPA SW-846 8260

4 Ah. cook

H4085BT.XLS

PLEASE NOTE: Ltability and Damages. Cardinat's liability and client's exclusive ramedy for any claim arising, whother 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 whatsoever shall be deemed waived unless made in writing and received by Cardinal within thiny (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without timitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



PHONE (915) 673-7001 @ 2111 BEECHWOOD @ ABILENE, TX 79603

PHONE (505) 393-2326 @ 101 E. MARLAND @ HOBBS, NM 88240

ANALYTICAL RESULTS FOR J&L LANDFARM, INC. ATTN: JUDY L. ROBERTS P.O. BOX 356 HOBBS, NM 88241-0356 FAX TO:

Receiving Date: 03/26/99 Reporting Date: 03/30/99 Project Owner: JUDY L. ROBERTS Project Name: BACKGRÓUND SAMPLE Project Location: SEC 9/SEC 10 T20 R38E Sampling Date: 03/26/99 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: AH

	Na	Ca	Mg	K Conductivity*	T-Alkalinity
LAB NUMBER SAMPLE ID	(mg/L)	(mg/L)	(mg/L)	(mg/L) (u mhos/cm)	(mgCaCO ₃ /L)

ANALYSIS [DATE:	03/30/99	03/30/99	03/30/99	03/30/99	03/30/99	03/30/99
H4085-1	BACKGROUND	0	282	83	150	514	816
	COMPOSITE						
· · · · · · · · · · · · · · · · · · ·							· · · · · · · · · · · · · · · · · · ·
Quality Cont	trol	NR	40	51	9.65	1402	NR
True Value C	20	NR	50	50	8	1413	NR
% Accuracy		NR	80	102	119	99	NR
Relative Per	cent Difference	NR	0.2	9.8	-	0.1	NR

METHODS:

SM3500-Ca-D 3500-Mg E

CI⁻ SO₄ (mg/L)(mg/L)

CO₃ (mg/L)(mg/L)

pH* (s.u.)

120.1

310.1

ANALYSIS [DATE:	03/30/99	03/30/99	03/30/99	03/30/99	03/30/99
H4085-1	BACKGROUND	95	0	0	996	7.87
·	COMPOSITE					
Quality Cont	trol	1127	48.87	112	221	7.03
True Value (20	1319	50.00	124	259	7.00
% Accuracy		85	98	90	85	100
Relative Per	cent Difference	1.8	1.6	-	-	1.4
METHODS:		SM4500-CI-B	375.4	310.1	310.1	150.1

*Analyses performed on a 1:4 w:v aqueous extract.

3130194 Date

8049

HCO₃

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, or negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thiny (30) days after completion of the applicable cardinal be fiable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, and Damages. Cardinal's liability and client's exclus PLEASE NO SALVIS service. In no event shall Ca tiates or successore arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



PHONE (915) 673-7001 . 2111 BEECHWOOD . ABILENE, TX 79803

PHONE (505) 393-2326 @ 101 E. MARLAND @ HOBBS, NM 88240

ANALYTICAL RESULTS FOR J&L LANDFARM, INC. ATTN: JUDY L. ROBERTS P.O. BOX 356 HOBBS, NM 88241-0356 FAX TO:

Receiving Date: 03/26/99 Reporting Date: 04/01/99 Project Owner: JUDY L. ROBERTS Project Name: BACKGROUND SAMPLE Project Location: SEC 9/SEC 10 T20 R38E Sampling Date: 03/26/99 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: AH

RCRA METALS

LAB NUMBE	ER SAMPLE ID	As	Ag	Ba	Cd	Cr	Pb	Hg	Se
1. S. S.		ppm							
ANALYSIS	DATE:	03/31/99	03/31/99	03/31/99	03/31/99	03/31/99	03/29/99	04/01/99	03/31/99
H4085-1	BACKGROUND	1.15	4.15	<5	1.25	<1	<1	< 0.002	0.25
	COMPOSITE								
					-				
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	· · · · · · · · · · · · · · · · · · ·								
		· · ·							
Quality Cont		0.053	4 653	21 45	0.932	5 4 4 8	4 884	0.0095	0.047
True Value (0.050	5.000	20.00	1,000	5.000	5 000	0.0100	0.050
% Recovery		106	93	107	93	109	98	95	94
Relative Per	cent Difference	1.72	0.17	2.06	1.69	6.16	3.13	2.4	2.19
-	-						·····		
METHODS:	EPA 600/4-79-020	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2
METHODS:	SW-846	7060A	7760A	7080A	7130	7190	7420	7470A	7740

ext & R Couche

H4085M.XLS

PLEASE NOTE: Liability and Damages. Cardinate 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 whatsoever shall be disened waived unless made in writing and received by Cardinal within thinty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without finitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hareundar by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

HALL ENVIRONMENTA ANALYSIS LABORATORY

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

July 11, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 Yr Metals Cell #1

OrderNo.: 1406C85

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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 1406C85

Date Reported: 7/11/2014

7/2/2014 3:58:19 PM

7/9/2014 8:07:25 AM

7/2/2014 1:34:15 PM

7/3/2014 10:48:57 AM

7/2/2014 1:34:15 PM

7/2/2014 1:34:15 PM

13972

13972

13972

13972

13972

13972

Hall Environmental Analysis Laboratory, Inc.

Iron

Lead

Silver

Zinc

Manganese

Selenium

CLIENT: J & L Landfarm Project: Vadose Zone 5 Yr Metals Cell	#1		Client Sampl Collection 1	e ID: Ce Date: 6/2	ll #1 #1 26/2014 5:15:00 AM	
Lab ID: 1406C85-001	Matrix: S	SOIL	Received 1	Date: 6/2	27/2014 8:50:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 4:32:14 PM	13997
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 1:34:15 PM	13972
Barium	67	0.10	mg/Kg	1	7/2/2014 1:34:15 PM	13972
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 1:34:15 PM	13972
Chromium	5.4	0.30	mg/Kg	1	7/2/2014 1:34:15 PM	13972
Copper	2.8	0.30	mg/Kg	1	7/2/2014 1:34:15 PM	13972

50

1.2

0.10

2.5

0.25

2.5

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

50

5

1

1

1

1

5400

2.1

68

ND

ND

13

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 8
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

A	na	ly	tica	l	R	e	p	0	rt	
_		-					_			

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406C85 Date Reported: 7/11/2014

CLIENT: J & L LandfarmProject:Vadose Zone 5 Yr Metals Cell #1Lab ID:1406C85-002Matrix: SOIL

Client Sample ID: Cell #1 #2 Collection Date: 6/26/2014 5:26:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	: MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 4:34:05 PM	13997
EPA METHOD 6010B: SOIL METALS				. '	Analys	ELS
Arsenic	, ND	2.5	mg/Kg	1	7/2/2014 1:38:39 PM	13972
Barium	43	0.099	mg/Kg	1	7/2/2014 1:38:39 PM	13972
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 1:38:39 PM	13972
Chromium	4.6	0.30	mg/Kg	1	7/2/2014 1:38:39 PM	13972
Copper	0.52	0.30	mg/Kg	1	7/2/2014 1:38:39 PM	13972
Iron	4300	49	mg/Kg	50	7/2/2014 3:59:43 PM	13972
Lead	ND	1.2	mg/Kg	5	7/9/2014 8:11:12 AM	13972
Manganese	28	0.099	mg/Kg	1	7/2/2014 1:38:39 PM	13972
Selenium	ND	2.5	mg/Kg	1	7/2/2014 1:38:39 PM	13972
Silver	· ND	0.25	mg/Kg	1	7/2/2014 1:38:39 PM	13972
Zinc	9.0	2.5	mg/Kg	1	7/2/2014 1:38:39 PM	13972

Qualifiers:	9 * 1	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	· E	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ŃD	Not Detected at the Reporting Limit	Page 2 of 8
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	1		

Analytical Report
Lab Order 1406C85

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/11/2014 Client Sample ID: Cell #1 #3

Project:Vadose Zone 5 Yr Metals Cell #1Lab ID:1406C85-003Matrix: SOIL

CLIENT: J & L Landfarm

Collection Date: 6/26/2014 5:33:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analysi	MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 4:36:07 PM	13997
EPA METHOD 6010B: SOIL METALS					Analys	ELS
Arsenic	ND	2.4	mg/Kg	1	7/2/2014 1:40:02 PM	13972
Barium	61	0.097	mg/Kg	1	7/2/2014 1:40:02 PM	13972
Cadmium	ND	0.097	mg/Kg	1	7/2/2014 1:40:02 PM	13972
Chromium	5.2	0.29	mg/Kg	1	7/2/2014 1:40:02 PM	13972
Соррег	2.8	0.29	mg/Kg	1	7/2/2014 1:40:02 PM	13972
fron	5200	48	mg/Kg	50	7/2/2014 4:01:04 PM	13972
Lead	2.0	1.2	mg/Kg	5	7/9/2014 8:12:25 AM	13972
Manganese	66	0.097	mg/Kg	1	7/2/2014 1:40:02 PM	13972
Selenium	ND	2.4	mg/Kg	1	7/2/2014 1:40:02 PM	13972
Silver	ND	0.24	mg/Kg	1	7/2/2014 1:40:02 PM	13972
Zinc	13	2.4	mg/Kg	1	7/2/2014 1:40:02 PM	13972

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 8
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	Tuge 5 of a
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analy	sis Laborat	ory, Inc.			Lab Order 1406C85 Date Reported: 7/11/20)14
CLIENT: J & L Landfarm Project: Vadose Zone 5 Yr Metals C Lab ID: 1406C85-004	Cell #1 Matrix: S	OIL	Client Sample Collection E Received E	e ID: Ce Date: 6/2 Date: 6/2	ll #1 #4 6/2014 5:44:00 AM 7/2014 8:50:00 AM	
Analyses	Result	'RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.032	mg/Kg	· 1	7/1/2014 4:38:20 PM	13997
EPA METHOD 6010B: SOIL METALS	;			· • ·	Analys	t: ELS
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 1:41:22 PM	13972
Barium	57	0.10	mg/Kg	· 1	7/2/2014 1:41:22 PM	13972
Cadmium ,	ND ND	· 0.10	mg/Kg	¹ 1	7/2/2014 1:41:22 PM	13972
Chromium	4.4	0.30	mg/Kg	1	7/2/2014 1:41:22 PM	13972
Copper	0.59	0.30	mg/Kg	[.] 1	7/2/2014 1:41:22 PM	13972
Iron	4100	50	mg/Kg	50	7/2/2014 4:02:30 PM	13972
Lead	1.3	1.3	mg/Kg	5	7/9/2014 8:13:39 AM	13972
Manganese	37	0.10	mg/Kg	1	7/2/2014 1:41:22 PM	13972
Selenium	ND	2.5	mg/Kg	1	7/2/2014 1:41:22 PM	13972
Silver	ND	0.25	mg/Kg	1	7/2/2014 1:41:22 PM	13972
Zinc	8.5	2.5	ma/Ka	1	7/2/2014 1:41:22 PM	13972

Analytical Report

Qualifiers:	*	Value exceeds Maximum	Contaminant Level.			В	Analyte detected in the associated Method	Blank
	Е	Value above quantitation 1	range			Н	Holding times for preparation or analysis of	exceeded
· .	J	Analyte detected below qu	uantitation limits			ND	Not Detected at the Reporting Limit	Page 4 of 8
	0	RSD is greater than RSD i	imit	1		Р	Sample pH greater than 2.	I uge I of e
	R	RPD outside accepted reco	overy limits	• •		RL	Reporting Detection Limit	
	S	Spike Recovery outside ac	ccepted recovery limit	ts				

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406C85

11-Jul-14

Client: J & L Landfarm Project: Vadose Zone 5 Vr Metals Cell #1

vauos		<u></u>		
Sample ID MB-13997	SampType: MBLK	TestCode: EPA Method	7471: Mercury	
Client ID: PBS	Batch ID: 13997	RunNo: 19615		
Prep Date: 7/1/2014	Analysis Date: 7/1/2014	SeqNo: 568742	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Mercury	ND 0.033			
Sample ID LCS-13997	SampType: LCS	TestCode: EPA Method	7471: Mercury	
Client ID: LCSS	Batch ID: 13997	RunNo: 19615		
Prep Date: 7/1/2014	Analysis Date: 7/1/2014	SeqNo: 568743	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Mercury	0.18 0.033 0.1667	0 105 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 greater than 2.
- RL Reporting Detection Limit

Page 5 of 8

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1406C85

11-Jul-14

Client:

J & L Landfarm

Project:	Vadose Z	Lone 5 Yr I	Metals C	ell #1							
Sample ID	MB-13972	 SampT	уре: МВ	LK	 Tes	stCode: E	PA Method	6010B: Soil I	Vetals		
Client ID:	PBS	Batch	ID: 139	72	, I	RunNo: 1	9639				÷
Prep Date:	6/30/2014	Analysis D	ate: 7/2	/2014		SeqNo: 5	69716	Units: mg/K	g		
Analyte		Result	PQL .	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD.	RPDLimit	Qual
Arsenic		ND	2.5		· <u> </u>						
Barium		ND	0.10								
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30			• .					
iron		ND	·1.0	۰.							
Lead		ND	0.25								
Manganese		ND	0.10		-						
Selenium		ND	2.5					·			
Silver		ND	0.25	1							
Zinc		ND	2.5								
Sample ID	LCS-13972	SampT	ype: LCS	Š	Tes	stCode: E	PA Method	6010B: Soil I	Metals		
Client ID:	LCSS	Batch	ID: 139	72	F	RunNo: 1	9639				
Prep Date:	6/30/2014	Analysis D	ate: 7/2	/2014		SeqNo: 5	69717	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vrsenic		24	2.5	25.00	0	96.4	80	120			
Barium		24	0.10	25.00	0	97.3	80	120			
Cadmium		24	0.10	25.00	0	97.1	80	120			
Chromium		24	0.30	25.00	0	97.5	80	120			
Copper		26	0.30	25.00	0	103	80	120			
ron		26	1.0	25.00	, O .	104	80	120			•
ead		23	0.25	25.00	0	92,0	80	120			
Vanganese		24	0.10	25.00	0	97.0	80	. 120			
Selenium		23	2.5	25.00	0	90.4	. 80	120			
Silver		5.0	0.25	5.000	0	100	80	120			
Zinc		24	2.5	25.00	0	95.9	80	120			
Sample ID	1406C85-001AMS	SampT	ype: MS		Tes	tCode: E	PA Method	6010B: Soil I	Netals		
Client ID:	Cell #1 #1	Batch	ID: 139	72	4 - F	RunNo: 1	9639				
Prep Date:	6/30/2014	Analysis D	ate: 7/2	/2014		SeqNo: 5	69800	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		. 24	2.5	25.34	0	95.6	75	125			
Barium		93	0.10	25.34	66.95	104	75	125			
Cadmium		22	0.10	25.34	0	88.6	75	125			
Chromium		28	0.30	25.34	5.384	88.1	75	125			
Copper		26	0.30	25.34	2.821	92.7	75	125			
Manganese		88	0.10	25.34	67.52	82.8	75	125			
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 greater than 2.
- RL Reporting Detection Limit

Page 6 of 8

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1406C85

11-Jul-14

Client: J & L Landfarm Vadose Zone 5 Yr Metals Cell #1 **Project:** TestCode: EPA Method 6010B: Soil Metals Sample ID 1406C85-001AMS SampType: MS Client ID: Cell #1 #1 Batch ID: 13972 RunNo: 19639 Units: mg/Kg Prep Date: 6/30/2014 Analysis Date: 7/2/2014 SeqNo: 569800 %REC %RPD RPDLimit Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit Qual 89.7 Silver 4.5 0.25 5.069 0 75 125 125 34 2.5 25.34 81.3 75 Zinc 13.34 Sample ID 1406C85-001AMSD SampType: MSD TestCode: EPA Method 6010B: Soil Metals Client ID: Cell #1 #1 Batch ID: 13972 RunNo: 19639 Prep Date: 6/30/2014 Analysis Date: 7/2/2014 SeqNo: 569801 Units: mg/Kg %REC %RPD RPDLimit PQL SPK value SPK Ref Val LowLimit HighLimit Qual Analyte Result 75 94.2 Arsenic 23 2.5 24.62 0 125 4.37 20 66.95 102 75 Barium 92 0.098 24.62 125 1.33 20 75 Cadmium 22 0.098 24.62 88 7 125 2.79 20 0 27 87.9 75 2.51 Chromium 0.30 24.62 5.384 125 20 26 2.821 92.5 75 2.85 20 Copper 0.30 24.62 125 75 20 87 0.098 24.62 67.52 788 125 1.79 Manganese 75 Silver 4.4 0.25 4.923 0 89.2 125 3.44 20 33 13.34 80.8 75 125 2.12 20 Zinc 2.5 24.62 SampType: MS Sample ID 1406C85-001AMS TestCode: EPA Method 6010B: Soil Metals Client ID: Cell #1 #1 Batch ID: 13972 RunNo: 19675 Prep Date: 6/30/2014 Analysis Date: 7/3/2014 SeqNo: 571152 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual 77.8 125 20 2.5 75 Selenium 25.34 0 Sample ID 1406C85-001AMSD SampType: MSD TestCode: EPA Method 6010B: Soil Metals Client ID: Cell #1 #1 Batch ID: 13972 RunNo: 19675 Prep Date: 6/30/2014 Analysis Date: 7/3/2014 SeqNo: 571153 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 7.43 20 S 18 2.5 24.62 0 74.4 75 125 Selenium Sample ID 1406C85-001AMS TestCode: EPA Method 6010B: Soil Metals SampType: MS RunNo: 19760 Client ID: Cell #1 #1 Batch ID: 13972 Analysis Date: 7/9/2014 SeqNo: 574049 Units: mg/Kg Prep Date: 6/30/2014 SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL Lead 26 1.3 25.34 2.094 94.9 75 125

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 greater than 2.
- RL Reporting Detection Limit

Page 7 of 8

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406C85

11-Jul-14

Client: J & L Landfarm Drainat Call #1 Vadage Zone & Va Matal

Sample ID	1406C85-001AMS	D SampT	ype: MS	έρ ,		TestCode:	EPA Method	6010B: Soil I	Netals		
Client ID:	Cell #1 #1	Batch	ID: 139	72	•	RunNo:	19760				
Prep Date:	6/30/2014	Analysis D	ate: 7/9	9/2014	с ¹	SeqNo:	574050	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref	Val %REC	C LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	· · · · · · · · · · · · · · · · · · ·	26	1.2	24.62	2.094	4 97.0) 75	125	0.732	20	
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- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 8 of 8

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albu TEL: 505-345-3975 A Website: www.hal	Analysis 4901 querque FAX: 56 llenviroi	s Laboratory Hawkins NE 2, NM 87109 05-345-4107 nmental.com	Sar	nple Log-In Cł	neck List
Client Name: J & L LANDFARM	Work Order Number:	14060	285		RcptNo:	1
Received by/date: () S	10/27/14					
Logged By: Celina Sessa 6/2	27/2014 8:50:00 AM		l	lim	Sim	
Completed By: Celina Sessa 6/2	27/2014 9:41:52 AM		G	lim	Sime	
Reviewed By: AT 06/30/14						
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?		<u>FedE</u>	X			
<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 p	reserved?	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	
12. Does paperwork match bottle labels?		Yes		No 🗌	bottles checked for pH:	
13. Are matrices correctly identified on Chain of Cu	stodv?	Yes			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)	order?	Yes	П	No 🗌		
]
Person Notified:		 1 aMa		• [] =•		
Regarding:				- L] • a		
Client Instructions:			······································	<u></u> .	<u></u>	
17. Additional remarks:			<u>`</u>		······································	
18. <u>Cooler Information</u> Cooler No Temp °C Condition Seal 1 5.5 Good Yes	Intact Seal No S	Seal Da	ite Sig	ned By		
Page 1 of 1						

C	hain	-of-Cu	istody Reco	rd	Turn-Around	Time:					B B A					~				- 44 - 12	
Client:					Standard	🗆 Rush								NV Sta	╵╢┡ ╴╺			7C		AL VDV	
J4 Mailing	Address	st farm			Project Name	Se zon					AN WM	w.ha	llenv	iron		tal.co	om M 87	100			ſ
PA	Ame .	256 1	Life alm SEL	4/	Project #	melais		1	49 Te		.345.	NE -	F -	aque	505.	345.	4107	7			
Phone	# 5	15-6	31-5765	<u> </u>					10			A	naly	/sis	Req	uest					
email o	or Fax#:	ilmob	1697 00 gol. con	<u>v </u>	Project Mana	ger:			(À	Ô				04)					T		\square
QAVQC	Package:		•			• ••		3021	as ol	Ň		<u>(</u>)		04,S(CB's						
Z Star	ndard		🗆 Level 4 (Full Vali	dation)	Judy	Koberts	-	3,s ({	ର୍	R S		SIM		D D U	2 P(ļ	
	itation				Sampler:	bjsh-		I ME	TPH		<u> </u>	22		N.	808						Î
					On Ice:	Yes			_+_ 	-8-	504	8	-9	-Õ	eș /	—	-ð			- -	8
Date	Time	Matrix	Sample Reque	est ID	Container Type and #	Preservative Type	неаl no. 1406085	BTEX + MTB	BTEX + MTB	TPH 8015B (TPH (Method EDB (Method	PAH's (8310	RCRA 8 Meta	Anions (F,Cl,I	8081 Pesticid	8260B (VOA)	8270 (Semi-V	metals *			Air Bubbles (
J26M	0515	Soil	Colt#1	# [1 to also	ice	-001			-+		1						x		\top	+1
1	0524	1		#1	1 Medias	1	-002				-	1						r		\top	
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Date:	Time:	Relinguish	ed by:		Received by:	L	Date Time	Ren	harks	<u></u>		L	[L					
6/26	1130	X	Sh	·	Appine	Sum	06/27/14 0850														
Date:	Time:	Relinquish	ed by:		Received by:		Date Time	SX A	uile , B	54 a.c.1	12 C-	mei Cu	ids Co	PI		Wal	+	50	۵.	71	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

July 14, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 Yr Metals Cell #2

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

OrderNo.: 1406C86

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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

Analytical Report Lab Order 1406C86 Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #2

Client Sample ID: Cell #2 #1 Collection Date: 6/26/2014 6:00:00 AM

Lab ID: 1406C86-001	Matrix: S	SOIL	Received	Date: 6/2	7/2014 8:50:00 AM	
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.033	mg/Kg	1	7/3/2014 10:36:44 AM	14019
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Barium	100	0.10	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Chromium	4.5	0.30	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Copper	1.2	0.30	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Iron	4200	50	mg/Kg	50	7/2/2014 4:03:54 PM	13972
Lead	ND	25	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Manganese	68	0.10	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Selenium	ND	2.5	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Silver	ND	0.25	mg/Kg	1	7/2/2014 1:47:47 PM	13972
Zinc	10	2.5	mg/Kg	1	7/2/2014 1:47:47 PM	13972

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
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND
 - Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**
- Page 1 of 6

Hall Environmental Analy	vsis Laborato	ry, Inc.			Lab Order 1406C86 Date Reported: 7/14/20	14
CLIENT: J & L Landfarm Project: Vadose Zone 5 Yr Metals C Lab ID: 1406C86-002	Cell #2 Matrix: SC)IL	Client Sampl Collection I Received I	e ID: Cel Date: 6/2 Date: 6/2	1 #2 #2 6/2014 6:09:00 AM 7/2014 8:50:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 10:38:30 AM	14019
EPA METHOD 6010B: SOIL METALS	;				Analyst	ELS
Arsenic	ND	2.4	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Barium	36	0.098	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Cadmium	ND	0.098	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Chromium	9.0	0.29	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Copper	0.42	0.29	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Iron	9400	98	mg/Kg	100	7/2/2014 4:05:09 PM	13972
Lead	ND	24	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Manganese	· 42	0.098	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Selenium	ND	2.4	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Silver	ND	0.24	mg/Kg	1	7/2/2014 1:49:14 PM	13972
Zinc	19	2.4	mg/Kg	1	7/2/2014 1:49:14 PM	13972

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 6
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Analytical Report

Lab Order 1406C86

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Client Sample ID: Cell #2 #3 Vadose Zone 5 Yr Metals Cell #2 Collection Date: 6/26/2014 6:14:00 AM **Project:** Lab ID: 1406C86-003 Matrix: SOIL Received Date: 6/27/2014 8:50:00 AM Result **RL** Qual Units **DF** Date Analyzed Batch Analyses EPA METHOD 7471: MERCURY Analyst: TES Mercury ND 0.033 mg/Kg 1 7/3/2014 10:40:16 AM 14019 E

PA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 1:50:35 PM	13972
Barium	91	0.10	mg/Kg	1	7/2/2014 1:50:35 PM	13972
Cadmium	ND	0.10	mg/Kg	. 1	7/2/2014 1:50:35 PM	13972
Chromium	4.1	0.31	mg/Kg	1	7/2/2014 1:50:35 PM	13972
Copper	0.99	0.31	mg/Kg	1	7/2/2014 1:50:35 PM	13972
Iron	3700	51	mg/Kg	50	7/2/2014 4:06:33 PM	13972
Lead	ND	. 25	mg/Kg	1	7/2/2014 1:50:35 PM	13972
Manganese	62	0.10	mg/Kg	1	7/2/2014 1:50:35 PM	13972
Selenium	ND	2.5	mg/Kg	1	7/2/2014 1:50:35 PM	13972
Silver	ND	0,25	mg/Kg	1	7/2/2014 1:50:35 PM	13972
Zinc	9.3	. 2.5	mg/Kg	1	7/2/2014 1:50:35 PM	13972

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Metho	od Blank
-	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of f
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 01 (
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1406C86

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

 CLIENT: J & L Landfarm
 Client Sample ID: Cell #2 #4

 Project: Vadose Zone 5 Yr Metals Cell #2
 Collection Date: 6/26/2014 6:25:00 AM

 Lab ID: 1406C86-004
 Matrix: SOIL
 Received Date: 6/27/2014 8:50:00 AM

 Analyses
 Result
 RL Qual Units
 DF Date Analyzed
 Batch

 EPA METHOD 7471: MERCURY
 Apalyst: TES

EPA METHOD 7471: MERCURY					Analyst:	TES
Mercury	ND	0.033	mg/Kg	1	7/3/2014 10:42:02 AM	14019
EPA METHOD 6010B: SOIL METALS	· .				Analyst:	ELS
Arsenic	ND	2.5	mg/Kg	[`] 1	7/2/2014 1:51:55 PM	13972
Barium	40	0.10	mg/Kg	1 1	7/2/2014 1:51:55 PM	13972
Cadmium	ND	0.10	mg/Kg	_ 1	7/2/2014 1:51:55 PM	13972
Chromium	9.6	0.30	mg/Kg	1	7/2/2014 1:51:55 PM	13972
Copper	0.50	0.30	mg/Kg	1	7/2/2014 1:51:55 PM	13972
Iron	10000	100	mg/Kg	100	7/2/2014 4:07:47 PM	13972
Lead	ND	25	mg/Kg	1	7/2/2014 1:51:55 PM	13972
Manganese	45	0.10	mg/Kg	1	7/2/2014 1:51:55 PM	13972
Selenium	ND	2.5	mg/Kg	. 1	7/2/2014 1:51:55 PM	13972
Silver	ND	0.25	mg/Kg	1	7/2/2014 1:51:55 PM	13972
Zinc	21	2.5	mg/Kg	1	7/2/2014 1:51:55 PM	13972

Qualifiers:	*	Value exceeds Maximum Contaminant Level.		в	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range		H	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits		ND	Not Detected at the Reporting Limit	Page 4 of 6
	0	RSD is greater than RSDlimit		\mathbf{P}	Sample pH greater than 2.	1 age 4 01 0
	R	RPD outside accepted recovery limits	1	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits				

WO#: 1406C86

Hall Environmental Analysis Laboratory, Inc.

Client: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #2

Sample ID MB-14019	SampType: MBLK	TestCode: EPA Method	7471: Mercury	
Client ID: PBS	Batch ID: 14019	RunNo: 19667		
Prep Date: 7/2/2014	Analysis Date: 7/3/2014	SeqNo: 570947	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Mercury	ND 0.033			
Sample ID LCS-14019	SampType: LCS	TestCode: EPA Method	7471: Mercury	
Sample ID LCS-14019 Client ID: LCSS	SampType: LCS Batch ID: 14019	TestCode: EPA Method RunNo: 19667	7471: Mercury	
Sample ID LCS-14019 Client ID: LCSS Prep Date: 7/2/2014	SampType: LCS Batch ID: 14019 Analysis Date: 7/3/2014	TestCode: EPA Method RunNo: 19667 SeqNo: 570948	7471: Mercury Units: mg/Kg	
Sample ID LCS-14019 Client ID: LCSS Prep Date: 7/2/2014 Analyte	SampType: LCS Batch ID: 14019 Analysis Date: 7/3/2014 Result PQL SPK value	TestCode: EPA Method RunNo: 19667 SeqNo: 570948 SPK Ref Val %REC LowLimit	7471: Mercury Units: mg/Kg HighLimit %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

14-Jul-14

Hall Environmental Analysis Laboratory, Inc.

Client: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #2

SampType: MBLK TestCode: EPA Method						6010B: Soil I	Metals								
Batch	n ID: 13	972	R	unNo: 1											
Analysis D	ate: 7/	2/2014	s	eqNo: 5	69716	Units: mg/Kg									
Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual						
ND	2.5								<u> </u>						
ND	0.10		. ~												
ND	0.10								·.						
ND	0.30	,													
ND	0.30			•											
NĎ	1.0		-												
ND	0.25														
ND	0.10														
ND	2.5						1	· 							
ND	0.25														
ND	2.5				<u> </u>										
SampT	ype: LC	S	Test	tCode: El	PA Method	6010B: Soil I	Vietals								
-															
Batch	n ID: 13	972	R	unNo: 1	9639			·. ·							
Batch Analysis D	n ID: 13 Pate: 7/	972 2/2014	R	unNo: 19 ieqNo: 5 0	9639 69717	Units: mg/K	g	·. ·							
Batch Analysis D Result	n ID: 13 Pate: 7/ PQL	972 2/2014 SPK value	R S SPK Ref Val	2unNo: 19 6eqNo: 50 %REC	9639 69717 LowLimit	Units: mg/K HighLimit	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24	n ID: 13: pate: 7/ PQL 2.5	972 2/2014 SPK value 25.00	R S SPK Ref Val 0	unNo: 19 6eqNo: 5 0 <u>%REC</u> 96.4	9639 69717 LowLimit 80	Units: mg/K HighLimit 120	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24	n ID: 13 pate: 7/ PQL 2.5 0.10	972 2/2014 SPK value 25.00 25.00	R S SPK Ref Val 0 0	unNo: 19 eqNo: 50 %REC 96.4 97.3	9639 69717 LowLimit 80 80	Units: mg/K HighLimit 120 120	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24 24 24	n ID: 13 pate: 7/ PQL 2.5 0.10 0.10	972 2/2014 SPK value 25.00 25.00 25.00	R S SPK Ref Val 0 0 0	2unNo: 19 eqNo: 50 <u>%REC</u> 96.4 97.3 97.1	9639 69717 LowLimit 80 80 80	Units: mg/K HighLimit 120 120 120	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24 24 24 24	n ID: 13 pate: 7/ PQL 2.5 0.10 0.10 0.30	972 2/2014 SPK value 25.00 25.00 25.00 25.00	R S SPK Ref Val 0 0 0 0 0	RunNo: 19 6eqNo: 50 96.4 97.3 97.1 97.5	9639 69717 LowLimit 80 80 80 80	Units: mg/K HighLimit 120 120 120 120	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24 24 24 24 26	Pate: 7/ PQL 2.5 0.10 0.10 0.30 0.30	972 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00	R S SPK Ref Val 0 0 0 0 0 0	tunNo: 19 ieqNo: 50 96.4 97.3 97.1 97.5 103	9639 69717 LowLimit 80 80 80 80 80 80	Units: mg/K HighLimit 120 120 120 120 120	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24 24 24 24 26 26 26	PQL 2.5 0.10 0.30 0.30 1.0	972 2/2014 25.00 25.00 25.00 25.00 25.00 25.00 25.00	R SPK Ref Val 0 0 0 0 0 0 0 0 0	2unNo: 19 ieqNo: 50 96.4 97.3 97.1 97.5 103 104	9639 69717 LowLimit 80 80 80 80 80 80 80	Units: mg/K HighLimit 120 120 120 120 120 120 120	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24 24 24 24 26 26 26 23	PQL 2.5 0.10 0.10 0.30 0.30 1.0 0.25	972 2/2014 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	R S SPK Ref Val 0 0 0 0 0 0 0 0 0 0	RunNo: 19 ieqNo: 50 96.4 97.3 97.1 97.5 103 104 92.0	9639 69717 LowLimit 80 80 80 80 80 80 80 80	Units: mg/K HighLimit 120 120 120 120 120 120 120 120	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24 24 24 24 26 26 26 23 23 24	POL 2.5 0.10 0.10 0.30 0.30 1.0 0.25 0.10	972 2/2014 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	R S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	kunNo: 19 ieqNo: 50 96.4 97.3 97.1 97.5 103 104 92.0 97.0	9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80	Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120	g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24 24 24 26 26 26 23 24 23	PQL 2.5 0.10 0.10 0.30 0.30 1.0 0.25 0.10 2.5	972 2/2014 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	R S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RunNo: 19 SeqNo: 50 96.4 97.3 97.1 97.5 103 104 92.0 97.0 90.4	9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80	Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	/g %RPD	RPDLimit	Qual						
Batch Analysis D Result 24 24 24 24 26 26 23 24 23 24 23 5.0	PQL 2.5 0.10 0.10 0.30 0.30 1.0 0.25 0.10 2.5 0.25	972 2/2014 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	R S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	kunNo: 19 keqNo: 50 %REC 96.4 97.3 97.1 97.5 103 104 92.0 97.0 90.4 100	9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80	Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	/g %RPD	RPDLimit	Qual						
	Batch Analysis D ND ND ND ND ND ND ND ND ND ND ND ND ND	Batch ID: 13 Analysis Date: 7/ Result PQL ND 2.5 ND 0.10 ND 0.30 ND 0.30 ND 0.30 ND 0.25 ND 0.25 ND 0.10 ND 0.25 ND 0.10 ND 2.5 ND 0.25 ND 0.25 ND 2.5 ND 2.5 ND 2.5 SampType: LC	Batch ID: 13972 Analysis Date: 7/2/2014 Result PQL SPK value ND 2.5 ND 0.10 ND 0.10 ND 0.30 ND 0.30 ND 0.25 ND 2.5 ND 2.5 ND 2.5 ND 2.5 ND 2.5	Batch ID: 13972 R Analysis Date: 7/2/2014 S Result PQL SPK value SPK Ref Val ND 2.5 ND 0.10 ND 0.10 ND 0.30 ND 0.30 ND 1.0 ND 0.25 ND 0.10 ND 0.30 ND 1.0 ND 0.25 ND 0.10 ND 0.25 ND 0.10 ND 2.5 ND 2.5 ND 0.25 SampType: LCS	Batch ID: 13972 RunNo: 1 Analysis Date: 7/2/2014 SeqNo: 5 Result PQL SPK value SPK Ref Val %REC ND 2.5 ND 0.10 10 ND 0.10 10 10 10 10 ND 0.30 10 10 10 10 10 ND 0.25 ND 0.10 <	RunNo: 19639 Analysis Date: 7/2/2014 SeqNo: 569716 Result PQL SPK value SPK Ref Val %REC LowLimit ND 2.5	Batch ID: 13972 RunNo: 19639 Analysis Date: 7/2/2014 SeqNo: 569716 Units: mg/K Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit ND 2.5 ND 0.10 ND 0.10 Image: SeqNo: 569716 Units: mg/K ND 0.10 ND 0.10 Image: SeqNo: 569716 Image: SeqNo: <	RunNo: 19639 Analysis Date: 7/2/2014 SeqNo: 569716 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD ND 2.5	RunNo: 19639 Analysis Date: 7/2/2014 SeqNo: 569716 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit ND 2.5 ND 0.10 ND 0.10 Image: SeqNo: 569716 Image: SeqNo						

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Page 6 of 6

14-Jul-14

1406C86

W.O#:

Client Name: J & L LANDFARM Work Order Number: Received by/date: CS 0/0/27/14 Logged By: Celina Sessa 6/27/2014 Completed By: Celina Sessa 6/27/2014 Reviewed By: Arrow 0/0/130/14 6/27/2014 Chain of Custody 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples?	1406C86		DootNo	
Received by/date: CS D/o 27 14 Logged By: Celina Sessa 6/27/2014 8:50:00 AM Completed By: Celina Sessa 6/27/2014 9:58:15 AM Reviewed By: Arr 06 130/14 Chain of Custody 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples?			Коричо.	1
Logged By: Celina Sessa 6/27/2014 8:50:00 AM Completed By: Celina Sessa 6/27/2014 9:58:15 AM Reviewed By: Arr o(o 1 3 o/1 4) Chain of Custody 1 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples?				
Completed By: Celina Sessa 6/27/2014 9:58:15 AM Reviewed By: A - 06130/14 Chain of Custody 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples?		alim S	m	
Reviewed By: A o(a 130/14) Chain of Custody 1. 1. Custody seals intact on sample bottles? 2. 2. Is Chain of Custody complete? 3. 3. How was the sample delivered? 4. 4. Was an attempt made to cool the samples?		Colling S		
 Chain of Custody 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 		and y	men :	
 Custody seals intact on sample bottles? Is Chain of Custody complete? How was the sample delivered? Log In Was an attempt made to cool the samples? 				
 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 	Yes 🗌	No 🗖	Not Present 🗹	
 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 	Yes 🗹	No 🗔	Not Present	
Log In 4. Was an attempt made to cool the samples?	<u>FedEx</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 🗌		
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	
12. Does paperwork match bottle labels?	Yes 🗹	No 🗆	for pH: (<2 of	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? (If no, notify customer for authorization.)	Yes 🗹	No 🗌	Checked by:	
<u>Special Handling (if applicable)</u>				
16. Was client notified of all discrepancies with this order?	Yes 🗌	No 🗆	NA 🗹	
Person Notified: Date]
By Whom: Via:				
Regarding:	eMail	Phone 🗌 Fax	🗌 In Person	
Client Instructions:	eMail 🗌 I	Phone 🗌 Fax	In Person	

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Yes			

Page 1 of 1

Client: THL hautharm Mailing Address:					Turn-Around	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com															
					5 vc metals cell+2				4901 Hawkins NE - Albuquerque, NM 87109												
PO Box 356 Hobbs N/m 8824/				88241	Project #				Tel. 505-345-3975 Fax 505-345-4107												
Phone #: 575-631-5765				5		_						,	Anal	ysis	Req	uest	t				
email or Fax#: 1 mab 1697 00 gol. com				ol.com	Project Mana	iger:		6	(Y	ĝ				5							
QA/QC	Package:		Ū				_	3021	(Gas or	Ž		(s		04,S	CB's			ł			
Z Star	ndard		Level 4	(Full Validation)	Judy	Roberts	• •	1,s (8 D		SIN	·	۲ ۵	5 5 5						
Accred	itation		_		Sampler:	hith-		IME	Ha	2	<u> </u>	2 2	1	l g	808						Î
			r		On Ice:	S XYes	CI No	+	+	R R	418	5 8	. s	ļģ) se		Ø				ō
Date	Time	Matrix	Sample	e Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTBI	BTEX + MTBI	TPH 8015B ((TPH (Method	PAH's (8310 (RCRA 8 Meta	Anions (F,Cl,I	8081 Pesticid	8260B (VOA)	8270 (Semi-V	METALS *	•		Air Bubbles ()
126H	ohod	Soil	Coll#	2 #1	1 Jack	in	-001											r			
1	06.69			#1			-002	+					1					r			
+	06.14			<u> </u>	<u> </u>	<u>† </u>	007			-+			┢┈	-				5			-+
+	10017			=	<u>├─</u> / ──	┼─╉───	-009			-+			┼─						-+		
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Date:	Time: //30	Relinquish	-Jh	-	Received by: Celenn	- Sma	Date Time 06/21/14 0850	Rer	nark	5: - 1			~^								
Date:	Time:	Relinquiste	ed by:	<u></u>	Received by:		Date Time		ui! . D	2Q	-12 10	me	1065 	<u> </u>	•			~	~	_	,
l					<u> </u>	······		11	s P		<u>34</u>	<u>u</u>	re	- 1	b	<u>NA</u>	ta	<u>Je</u>	Ha	ZN	<u>/</u>

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report
HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 11, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr Metals Cell #4

OrderNo.: 1406C88

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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,

and

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1406C88 Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

Vadose Zone 5 yr Metals Cell #4

CLIENT: J & L Landfarm

1406C88-001

Project:

Lab ID:

Client Sample ID: Cell #4 #1 Collection Date: 6/26/2014 7:10:00 AM Matrix: SOIL Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: TES
Mercury	ND	0.033	mg/Kg	1	7/3/2014 10:43:49 AM	14019
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Barium	45	0.10	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Chromium	2.9	0.30	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Copper	0.52	0.30	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Iron	2500	20	mg/Kg	20	7/2/2014 4:09:13 PM	13972
Lead	0.25	0.25	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Manganese	42	0.10	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Selenium	ND	2.5	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Silver	ND	· 0.25	mg/Kg	1	7/2/2014 1:53:26 PM	13972
Zinc	5.6	2.5	mg/Kg	1	7/2/2014 1:53:26 PM	13972

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
	-	

- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.

- RL **Reporting Detection Limit**

Page 1 of 6

Hall Environmental Analysi	is Laborat	ory, Inc.			Lab Order 1406C88 Date Reported: 7/11/20	14
CLIENT: J & L Landfarm Project: Vadose Zone 5 yr Metals Cell Lab ID: 1406C88-002	#4 Matrix: S	SOIL	Client Sampl Collection I Received I	e ID: Ce Date: 6/2 Date: 6/2	ll #4 #2 6/2014 7:17:00 AM 7/2014 8:50:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: TES
Mercury	ND	0.031	mg/Kg	1	7/3/2014 10:49:19 AM	14019
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	, ND	2.5	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Barium	96	0.098	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Cadmium	ND	[°] 0.098	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Chromium	3.6	0.29	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Соррег	0.56	0.29	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Iron	[·] 3100	20	mg/Kg	20	7/2/2014 4:10:23 PM	13972
Lead	0.32	0.25	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Manganese	46	0.098	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Selenium	ND	2.5	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Silver	ND	0.25	mg/Kg	1	7/2/2014 1:54:48 PM	13972
Zinc	6.8	2.5	mg/Kg	1	7/2/2014 1:54:48 PM	13972

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Analytical Report

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	:		

Analytical Report Lab Order 1406C88 Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

Vadose Zone 5 yr Metals Cell #4

CLIENT: J & L Landfarm

Project:

Client Sample ID: Cell #4 #3 Collection Date: 6/26/2014 7:28:00 AM Beastred Deter 6/27/2014 8.50.00 ANA

Lab ID: 1406C88-003	Matrix: S	SOIL	Received	Received Date: 6/27/2014 8:50:00 AM					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 7471: MERCURY					Analys	t: TES			
Mercury	ND	0.033	mg/Kg	1	7/3/2014 10:54:56 AM	14019			
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS			
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Barium	49	0.10	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Chromium	3.1	0.30	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Copper	0.80	0.30	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Iron	2600	20	mg/Kg	20	7/2/2014 4:16:30 PM	13972			
Lead	0.31	0.25	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Manganese	42	0.10	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Selenium	ND	2.5	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Silver	ND	0.25	mg/Kg	1	7/2/2014 1:56:11 PM	13972			
Zinc	5.9	2.5	mg/Kg	1	7/2/2014 1:56:11 PM	13972			

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

- J Analyte detected below quantitation limits
- 0 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 В

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Р Sample pH greater than 2.

RL Reporting Detection Limit Page 3 of 6

Analytica	I Report
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Lab Order 1406C88

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone 5 yr Metals Cell #4

Lab ID: 1406C88-004 Matrix: SOIL

Client Sample ID: Cell #4 #4 Collection Date: 6/26/2014 7:33:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCU	JRY				Analys	t: TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 10:56:46 AM	14019
EPA METHOD 6010B: SOIL	METALS	· · · ·	-		Analys	ELS
Arsenic	ND	2.4	mg/Kg	1 `	7/2/2014 1:57:33 PM	13972
Barium	87	0.098	mg/Kg	<u></u> 1	7/2/2014 1:57:33 PM	13972
Cadmium	ND	0.098	mg/Kg	1	7/2/2014 1:57:33 PM	13972
Chromium	3.4	0.29	mg/Kg	1	7/2/2014 1:57:33 PM	13972
Copper	0.36	0.29	mg/Kg	1	7/2/2014 1:57:33 PM	13972
Iron	2900	20	mg/Kg	20	7/2/2014 4:22:46 PM	13972
Lead	0.39	0.24	mg/Kg	1	7/2/2014 1:57:33 PM	13972
Manganese	42	0.098	mg/Kg	1	7/2/2014 1:57:33 PM	13972
Selenium	ND	2.4	mg/Kg	1	7/2/2014 1:57:33 PM	13972
Silver	ND	0.24	mg/Kg	1	7/2/2014 1:57:33 PM	13972
Zinc	<u>6.2</u>	2.4	mg/Kg	1	7/2/2014 1:57:33 PM	13972
	· · · ·	•	. .			

Oualifiers:	*	Value exceeds Maximum Contaminant Level.		B	Analyte detected in the associated Metho	od Blank
	E	Value above quantitation range	• *	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	. '	ND	Not Detected at the Reporting Limit	Dage / of 6
	0	RSD is greater than RSDlimit		Р	Sample pH greater than 2.	rage 4 01 0
	R	RPD outside accepted recovery limits	· ,	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits				

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

11**-J**ul-14

Client: J & L Landfarm

1

Project:		Vadose Zone 5 yr Metals Cell #4
I I OJCCU	•	Vadose Ziene e ji nietale eth i i

											-
Sample ID	MB-14019	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID:	PBS	Batcl	h ID: 14	019	F	RunNo: 1	9667				
Prep Date:	7/2/2014	Analysis E	Date: 7/	3/2014	5	SeqNo: 5	570947	Units: mg/H	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit_	%RPD	RPDLimit	Qual
Mercury		ND	0.033							-	
Sample ID	LCS-14019	SampT	ype: LC	s	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID:	LCSS	Batcl	h ID: 14	019	F	RunNo: 1	9667				
Prep Date:	7/2/2014	Analysis D	Date: 7/	3/2014	S	SeqNo: 5	70948	Units: mg/F	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.17	0.033	0.1667	0	99.4	80	120			
Sample ID	1406C88-001AMS	Samp1	Гуре: М	<u> </u>	Tes	tCode: E	PA Method	7471: Mercu	ry		-
Sample ID Client ID:	1406C88-001AMS Cell #4 #1	Samp1 Batcl	Type: MS	6 019	Tes - F	tCode: E RunNo: 1	PA Method 9667	7471: Mercu	ry		
Sample ID Client ID: Prep Date:	1406C88-001AMS Cell #4 #1 7/2/2014	Samp1 Batcl Analysis D	Type: MS h ID: 14 Date: 7/	5 019 '3/2014	Tes - F	tCode: E RunNo: 1 SeqNo: 5	PA Method 9667 570954	7471: Mercu Units: mg/f	ry (g		
Sample ID Client ID: Prep Date: Analyte	1406C88-001AMS Cell #4 #1 7/2/2014	Samp1 Batcl Analysis E Result	Type: MS h ID: 14 Date: 7 / PQL	3 019 3/2014 SPK value	Tes - F SPK Ref Val	tCode: E RunNo: 1 SeqNo: 5 %REC	PA Method 9667 570954 LowLimit	7471: Mercu Units: mg/F HighLimit	'ry (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Mercury	1406C88-001AMS Cell #4 #1 7/2/2014	SampT Batcl Analysis E Result 0.16	Type: MS h ID: 14 Date: 7/ PQL 0.033	5 019 3/2014 SPK value 0.1657	Tes F S SPK Ref Val 0	tCode: E RunNo: 1 SeqNo: 5 %REC 96.7	PA Method 9667 570954 LowLimit 75	7471: Mercu Units: mg/F HighLimit 125	ry (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Mercury Sample ID	1406C88-001AMS Cell #4 #1 7/2/2014 1406C88-001AMS	SampT Batcl Analysis E Result 0.16 D SampT	Type: MS h ID: 14 Date: 7/ PQL 0.033 Type: MS	5 019 3/2014 SPK value 0.1657 SD	Tes F SPK Ref Val 0 Tes	tCode: E RunNo: 1 SeqNo: 5 %REC 96.7 tCode: E	PA Method 9667 570954 LowLimit 75 PA Method	7471: Mercu Units: mg/F HighLimit 125 7471: Mercu	ry (g %RPD ry	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Mercury Sample ID Client ID:	1406C88-001AMS Cell #4 #1 7/2/2014 1406C88-001AMS Cell #4 #1	SampT Batcl Analysis E Result 0.16 D SampT Batcl	Type: MS h ID: 14 Date: 7/ PQL 0.033 Type: MS h ID: 14	5 019 3/2014 SPK value 0.1657 SD 019	Tes F SPK Ref Val 0 Tes F	tCode: E RunNo: 1 SeqNo: 5 %REC 96.7 tCode: E RunNo: 1	PA Method 9667 570954 LowLimit 75 PA Method 9667	7471: Mercu Units: mg/F HighLimit 125 7471: Mercu	ry (g %RPD ry	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Mercury Sample ID Client ID: Prep Date:	1406C88-001AMS Cell #4 #1 7/2/2014 1406C88-001AMS Cell #4 #1 7/2/2014	SampT Batcl Analysis E Result 0.16 D SampT Batcl Analysis E	Fype: MS h ID: 14 Date: 7/ PQL 0.033 Fype: MS h ID: 14 Date: 7/	5 019 3/2014 SPK value 0.1657 SD 019 3/2014	Tes F SPK Ref Val 0 Tes F S	tCode: E RunNo: 1 SeqNo: 5 %REC 96.7 tCode: E RunNo: 1 SeqNo: 5	PA Method 9667 570954 LowLimit 75 PA Method 9667 570955	7471: Mercu Units: mg/F HighLimit 125 7471: Mercu Units: mg/F	ry (g %RPD ry (g	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Mercury Sample ID Client ID: Prep Date: Analyte	1406C88-001AMS Cell #4 #1 7/2/2014 1406C88-001AMS Cell #4 #1 7/2/2014	SampT Batcl Analysis D Result 0.16 D SampT Batcl Analysis D Result	Fype: MS h ID: 14 Date: 7/ PQL 0.033 Fype: MS h ID: 14 Date: 7/ PQL	5 019 3/2014 SPK value 0.1657 5D 019 3/2014 SPK value	Tes SPK Ref Val 0 Tes F SPK Ref Val	tCode: E RunNo: 1 SeqNo: 5 %REC 96.7 tCode: E RunNo: 1 SeqNo: 5 %REC	PA Method 9667 570954 LowLimit 75 PA Method 9667 570955 LowLimit	7471: Mercu Units: mg/F HighLimit 125 7471: Mercu Units: mg/F HighLimit	ry (g %RPD ry (g %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406C88

11**-Jul-**14

Client: J & L Landfarm

Project: Vadose Zone 5 yr Metals Cell #4

Sample ID MB-13972	Samp	Гуре: МЕ	BLK .	Tes	tCode: El	PA Method	6010B: Soil I	Vetals		
Client ID: PBS	Batc	h ID: 13	972	R	tunNo: 1	9639				
Prep Date: 6/30/2014	Analysis E	Date: 7/	2/2014	S	eqNo: 5	69716	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	. ND	0.10		-,						
Cadmium	ND .	0.10								
Chromium	ND	0.30								
Соррег	ND	0.30								
Iron	ND	1.0		•						
Lead	ND	0.25								
Manganese	ND	0.10	,				S.			
Selenium	ND	2.5			,					
		0.05								
Silver	ND	0.25								
Silver Zinc	ND ND	0.25 2.5	. •							
Silver Zinc Sample ID LCS-13972	ND ND Samp1	0.25 2.5 Type: LC	S	Tesi	Code: El	PA Method	6010B: Soil I	Vetals		
Silver Zinc Sample ID LCS-13972 Client ID: LCSS	ND ND Samp1 Batcl	0.25 2.5 Type: LC	:S 972	Tesi	Code: El	PA Method 9639	6010B: Soil I	Netals		
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014	ND ND Samp1 Batcl Analysis I	0.25 2.5 Type: LC h ID: 13 Date: 7/	S 972 2/2014	Tesi R S	Code: El RunNo: 19 GeqNo: 5	PA Method 9639 69717	6010B: Soil I Units: mg/K	Metals 9		
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte	ND ND SampT Batcl Analysis I Result	0.25 2.5 Type: LC h ID: 13 Date: 7/	S 972 2/2014 SPK value	Tesi R S SPK Ref Val	Code: El RunNo: 1 SeqNo: 50 %REC	PA Method 9639 69717 LowLimit	6010B: Soil I Units: mg/K HighLimit	Metals 9 %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic	ND ND Samp1 Batcl Analysis I Result 24	0.25 2.5 Type: LC h ID: 13 Date: 7/ PQL 2.5	S 972 2/2014 SPK value 25.00	Test R S SPK Ref Val 0	Code: El SunNo: 19 SeqNo: 50 %REC 96.4	PA Method 9639 69717 LowLimit 80	6010B: Soil I Units: mg/K HighLimit 120	Metals 9 %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium	ND ND SampT Batcl Analysis E Result 24 24	0.25 2.5 fype: LC h ID: 13 Date: 7/ • PQL 2.5 0.10	SPK value 25.00 25.00	Test R SPK Ref Val 0 0	Code: El RunNo: 1 BeqNo: 5 %REC 96.4 97.3	PA Method 9639 69717 LowLimit 80 80	6010B: Soil I Units: mg/K HighLimit 120 120	Vetals g %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium	ND ND SampT Batcl Analysis D Result 24 24 24	0.25 2.5 Fype: LC h ID: 13 Date: 7/ 2.5 0.10 0.10	972 2/2014 SPK value 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0	Code: El JunNo: 19 JeqNo: 5 %REC 96.4 97.3 97.1	PA Method 9639 69717 LowLimit 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120	Vetals g %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium	ND ND SampT Batcl Analysis D Result 24 24 24 24 24	0.25 2.5 Fype: LC h ID: 13 Date: 7/ 2.5 0.10 0.10 0.30	SPK value 2/2014 SPK value 25.00 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0 0 0	Code: El LunNo: 19 WREC 96.4 97.3 97.1 97.5	PA Method 9639 69717 LowLimit 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120	Metals g %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper	ND ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 24 26	0.25 2.5 Type: LC h ID: 13 Date: 7/ 2.5 0.10 0.10 0.30 0.30	SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi S SPK Ref Val 0 0 0 0 0 0 0	Code: El LunNo: 19 %REC 96.4 97.3 97.1 97.5 103	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120	Metals g %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron	ND ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 26 26	0.25 2.5 Fype: LC h ID: 13 Date: 7/ 2.5 0.10 0.10 0.30 0.30 1.0	SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi SPK Ref Val 0 0 0 0 0 0 0 0 0	Code: El cunNo: 1 %REC 96.4 97.3 97.1 97.5 103 104	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120	Metals g %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead	ND ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 24 26 26 26 23	0.25 2.5 Type: LC h ID: 13 Date: 7/ 2.5 0.10 0.10 0.30 0.30 0.30 1.0 0.25	S 972 2/2014 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0 0 0 0 0 0	Code: Ei kunNo: 19 %REC 96.4 97.3 97.1 97.5 103 104 92.0	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Cadmium Chromium Copper Iron Lead Manganese	ND ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 24 26 26 26 23 24	0.25 2.5 √ype: LC h ID: 13 Date: 7/ 2.5 0.10 0.10 0.30 0.30 0.30 0.30 0.25 0.10	S 972 2/2014 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0	Code: Ei JunNo: 19 %REC 96.4 97.3 97.1 97.5 103 104 92.0 97.0	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Metals g %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Chromium Copper Iron Lead Manganese Selenium	ND ND SampT Batcl Analysis D Result 24 24 24 24 24 24 26 26 26 23 24 23	0.25 2.5 Type: LC h ID: 13 Date: 7/ 2.5 0.10 0.10 0.30 1.0 0.25 0.10 2.5	SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: Ei seqNo: 5 %REC 96.4 97.3 97.1 97.5 103 104 92.0 97.0 90.4	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Metals g %RPD	RPDLimit	Qual
Silver Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver	ND ND Samp Batcl Analysis D Result 24 24 24 24 24 26 26 26 23 24 23 24 23 5.0	0.25 2.5 Type: LC h ID: 13 Date: 7/ 2.5 0.10 0.10 0.30 0.30 1.0 0.25 0.10 2.5 0.10 2.5 0.10 0.25 0.10	SPK value 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: El seqNo: 5 %REC 96.4 97.3 97.1 97.5 103 104 92.0 97.0 97.0 90.4 100	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Metals g %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 6 of 6

opting Detection Limit

HALL Hall Environmental ENVIRONMENTAL ANALYSIS LABORATORY TEL: 505-345-397 Website: www.h	al Analysis Labora 4901 Hawkins buquerque, NM 87 15 FAX: 505-345-4 vallenvironmental.	tory 5 NE 7109 Sam 1107 com	ple Log-In Ch	eck List
Client Name: J & L LANDFARM Work Order Numbe	r. 1406C88		RcptNo:	1
Received by/date: (S) 010 27 14 Logged By: Celina Sessa 8/26/2014 8:50:00 AM	nativit	Citim S	~	
Completed By: Celina Sessa 6/27/2014 9:57:45 AM	A .	1.a. (
Reviewed By: AT 0@/30//4	·	alion >	m.	
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?	FedEx			
Log in				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗔	NA 🗆	
5. Were all samples received at a temperature of $>0^{\circ}$ 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	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗔	bottles checked for pH: (<2 or	>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 🗖	.	
 Were all holding times able to be met? (If no, notify customer for authorization.) 	Yes 🗹	No 🗋	Checked by:	

Special Handling (if applicable)

s client notified of all di	screpancies with this order?		Yes 🗌] No		NA
Person Notified:		Date				
By Whom:	······································	Via:	🗌 eMail	Phone	Fax	In Person
Regarding:	······································		· · · · · · · · · · · · · · · · · · ·			
Client Instructions:						

17. Additional remarks:

18. Cooler Information

ŀ	Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
ľ	1	5.5	Good	Yes			

Page 1 of 1

C	hain	-of-Cu	stody	Record	Turn-Around	Time:					-			_	-							
Client:			-- - ----- - -------- - --- - ---------------------- - --- - ---- - ---		Standard	🗆 Rush	· ·						LL Al	El Vé	NV 276	/1F 2 1		20	ME D	IN I	AL 101	a
J41 Mailing	Address	24 Jarm	<u> </u>		Project Name	e zon					P		r.hal	lenv	iron	> L	tai.c	om		~ 1 ~	у тс. ¹	I
DA	0	251. 1	116-11	- const/	Project #	mélals	(ell=7		49	01 H	awki	ns N	1 - 17 -	AID	uque	erqu	e, N 245	M 8/	7109 7			
_ EV _		150 4	21-57	M 80-71	$\frac{1}{1}$				16	a. 50	15-34	5-39	из А	nalv	-ax /sis	505- Rea	040 ues	-410				
email o	n Fax#:	ilash	69700	ad/ CDWA	Project Mana	ager:			ly)	ô					4)							Τ
QA/QC	Package:					•		021)	s on	MR			6		⁴ ,SC	B's				i l		
Z Stan	dard			4 (Full Validation)	Judy	Roberts		(8) (8)	(Ga	го В		Ì	SIM		Q.	2 PC						
Accred	itation			•	Sampler:	fish		IMB	H		÷.	=	2		NO2	808						Î
			er		On loe:	Yes		+	+	SR0	418	50	9 8	sl	Š.	es /		(Yo				ō
Date	Time	Matrix	Samp	le Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTBI	BTEX + MTBI	TPH 8015B ((TPH (Method	EDB (Method	PAH's (8310 (RCRA 8 Meta	Anions (F,Cl,)	8081 Pesticid	8260B (VOA)	8270 (Semi-V	metals *			Air Bubbles ()
6261	0710	soil	Cell	¥4 #1	1 Jacks	ice	-001		- <u>-</u>					-					x		-	\uparrow
1	0717	1		₩2	1		-002												r			+
	0728			#3			-003			_									r			\top
4	0733	1	4	4 sted	4	4	-004					_							X			+
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Date:	Time:	Relinquish	s Sh	-	Received by:	Sima	Date Time 06/27/14 0850	Ren	narks	3: •	•	•					L	L		4	k	
Date:	Time:	Relinquist	ed by:		Received by:		Date Time	A:	uite s B	ed ec	-12 1 G	- n - C	neil 12 I	ils Fe	P	o 1	NNł	ta	Se	Aa	ZN	•

if necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

July 11, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr metals Cell 20

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

OrderNo.: 1406C93

Dear Judy Roberts:

. . .

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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

Date Reported: 7/11/2014

7/9/2014 8:27:13 AM

7/2/2014 1:58:58 PM

7/2/2014 1:58:58 PM

7/2/2014 1:58:58 PM

7/2/2014 1:58:58 PM

7/2/2014 4:23:56 PM

7/2/2014 1:58:58 PM

7/2/2014 1:58:58 PM

7/2/2014 1:58:58 PM

7/2/2014 1:58:58 PM

[•] 7/2/2014 1:58:58 PM

Analyst: ELS

13972

13972

13972

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13972

Hall Environmental Analysis Laboratory, Inc.

EPA METHOD 6010B: SOIL METALS

Arsenic

Barium

Cadmium

Chromium

Manganese

Selenium

Copper Iron

Lead

Silver

Zinc

Client Sample ID: Cell #20 #1 CLIENT: J & L Landfarm **Project:** Vadose Zone 5 yr metals Cell 20 Collection Date: 6/24/2014 6:45:00 AM Received Date: 6/27/2014 8:50:00 AM Lab ID: 1406C93-001 Matrix: SOIL Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 7471: MERCURY** Analyst: MMD Mercury ND 0.034 mg/Kg 1 7/1/2014 4:40:12 PM 13997

12

0.098

0.098

0.30

0.30

0.25

0.098

2.5

0.25

2.5

49

ma/Ka

mg/Kg

5

1

1

1

1

50

1

1

1

1

1

ND

150

ND

4.1

4.6

4100

3.4

63

ND

ND

15

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	 B	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 6
	0	RSD is greater than RSD1imit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Lab Order 1406C93

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L LandfarmProject:Vadose Zone 5 yr metals Cell 20Lab ID:1406C93-002Matrix: SOIL

Client Sample ID: Cell #20 #2 Collection Date: 6/24/2014 6:56:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY		· · · · · · · · · · · · · · · · · · ·			Analyst	: MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 4:45:30 PM	13997
EPA METHOD 6010B: SOIL METALS		í		ан. С	Analyst	ELS
Arsenic	ND	^{`.} 13	mg/Kg	5	7/9/2014 8:28:29 AM	13972
Barium	79	0.10	mg/Kg	1	7/2/2014 2:00:20 PM	13972
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 2:00:20 PM	13972
Chromium	4.6	0.30	mg/Kg	1	7/2/2014 2:00:20 PM	13972
Copper	3.6	0.30	mg/Kg	1	7/2/2014 2:00:20 PM	13972
Iron	4700	50	mg/Kg	50	7/2/2014 4:25:07 PM	13972
Lead	0.69	0.25	mg/Kg	1	7/2/2014 2:00:20 PM	13972
Manganese	65	0.10	mg/Kg	1	7/2/2014 2:00:20 PM	13972
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:00:20 PM	13972
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:00:20 PM	13972
Zinc	11	2.5	mg/Kg	1	7/2/2014 2:00:20 PM	13972

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Metho	d Blank
-	Ε	Value above quantitation range	н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	rage 2 010
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	•		

Lab Order 1406C93

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

 CLIENT: J & L Landfarm
 Client Sample ID: Cell #20 #3

 Project:
 Vadose Zone 5 yr metals Cell 20
 Collection Date: 6/24/2014 7:08:00 AM

 Lab ID:
 1406C93-003
 Matrix: SOIL
 Received Date: 6/27/2014 8:50:00 AM

 Analyses
 Result
 RL
 Qual
 Units
 DF
 Date Analyzed
 Batch

EPA METHOD 7471: MERCURY	ND	0.032	ma/Ka	1	Analyst 7/1/2014 4:51:00 PM	: MMD 13997
EPA METHOD 6010B: SOIL METALS				·	Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:29:43 AM	13972
Barium	140	0.098	mg/Kg	1	7/2/2014 2:06:48 PM	13972
Cadmium	ND	0.098	mg/Kg	1	7/2/2014 2:06:48 PM	13972
Chromium	3.9	0.29	mg/Kg	1	7/2/2014 2:06:48 PM	13972
Copper	4.8	0.29	mg/Kg	1	7/2/2014 2:06:48 PM	13972
Iron	4300	49	mg/Kg	50	7/2/2014 4:26:19 PM	13972
Lead	3.5	0.24	mg/Kg	1	7/2/2014 2:06:48 PM	13972
Manganese	62	0.098	mg/Kg	1	7/2/2014 2:06:48 PM	13972
Selenium	ND	2.4	mg/Kg	1	7/2/2014 2:06:48 PM	13972
Silver	ND	0.24	mg/Kg	1	7/2/2014 2:06:48 PM	13972
Zinc	17	2.4	mg/Kg	1	7/2/2014 2:06:48 PM	13972

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 4 20 5 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406C93 Date Reported: 7/11/2014

CLIENT: J & L Landfarm

Project:Vadose Zone 5 yr metals Cell 20Lab ID:1406C93-004Matrix: SOIL

Client Sample ID: Cell #20 #4 Collection Date: 6/24/2014 7:18:00 AM

Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY		• ,			Analys	: MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 4:52:46 PM	13997
EPA METHOD 6010B: SOIL METALS			•	•	Analys	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:30:58 AM	13972
Barium	83	0.098	mg/Kg	[.] 1	7/2/2014 2:08:14 PM	13972
Cadmium	ND	0.098	mg/Kg	° 1	7/2/2014 2:08:14 PM	13972
Chromium	4.0	0.29	mg/Kg	1	7/2/2014 2:08:14 PM	13972
Copper	3.4	0.29	mg/Kg	1	7/2/2014 2:08:14 PM	13972
Iron	4100	49	. mg/Kg	50	7/2/2014 4:27:31 PM	13972
Lead	0.80	0.24	mg/Kg	1	7/2/2014 2:08:14 PM	13972
Manganese	66	0.098	mg/Kg	1	7/2/2014 2:08:14 PM	, 13972
Selenium	ND	2.4	′ mg/Kg	[`] 1	7/2/2014 2:08:14 PM	13972
Silver	ND	0.24	mg/Kg	1	7/2/2014 2:08:14 PM	13972
Zinc	13	2.4	mg/Kg	1	7/2/2014 2:08:14 PM	13972

0	*	V-luc encode Menimum Contentionent Local					1.01
Quanners:	-	Value exceeds Maximum Contaminant Level.		۰ .	в	Analyte detected in the associated Meth	od Blank
	E	Value above quantitation range	,		Н	Holding times for preparation or analysi	s exceeded
	÷ J	Analyte detected below quantitation limits		÷ .*	ND	Not Detected at the Reporting Limit	Page 4 of 6
	0	RSD is greater than RSD limit			Р	Sample pH greater than 2.	1 age 4 01 0
	R	RPD outside accepted recovery limits	. • *		RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits					•

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	J & L Lar	ndfarm									
Project:	Vadose Z	one 5 yr n	netals	Cell 20				<u> </u>			<u></u>
Sample ID	MB-13997	SampT	ype: N	IBLK	Tes	tCode: El	PA Method	7471: Mercu	ry		· · · ·
Client ID:	PBS	Batch	h ID: 1	3997	F	RunNo: 1	9615				
Prep Date:	7/1/2014	Analysis D	Date:	7/1/2014	Ś	SeqNo: 5	68742	Units: mg/H	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.03	3							
Sample ID	LCS-13997	SampT	Type: L	.cs	Tes	tCode: El	PA Method	7471: Mercu	гу		
Client ID:	LCSS	Batch	h ID: 1	3997	F	RunNo: 1	9615				
Prep Date:	7/1/2014	Analysis D	Date:	7/1/2014	5	SeqNo: 5	68743	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.18	0.03	3 0.1667	0	105	80	120			
Mercury Sample ID	1406C93-001AMS	0.18 SampT	0.033	3 0.1667 NS	0 0 	105 tCode: El	80 PA Method	120 7471: Mercu	ry		
Mercury Sample ID Client ID:	1406C93-001AMS Ceil #20 #1	0.18 SampT Batch	0.033 Type: N h ID: 1	3 0.1667 NS 3997	0 Tes	105 tCode: El RunNo: 1	80 PA Method 9615	120 7471: Mercu	ry		
Mercury Sample ID Client ID: Prep Date:	1406C93-001AMS Cell #20 #1 7/1/2014	0.18 SampT Batch Analysis D	0.033 Type: N h ID: 1 Date:	3 0.1667 NS 3997 7/1/2014	0 Tes F	105 tCode: Ef RunNo: 19 SeqNo: 5	80 PA Method 9615 68761	120 7471: Mercu Units: mg/H	 ry (g		
Mercury Sample ID Client ID: Prep Date: Analyte	1406C93-001AMS Cell #20 #1 7/1/2014	0.18 SampT Batch Analysis D Result	0.03: Type: N h ID: 1 Date: PQL	3 0.1667 IS 3997 7/1/2014 SPK value	0 Tes F SPK Ref Val	105 tCode: El RunNo: 19 SeqNo: 50 %REC	80 PA Method 9615 68761 LowLimit	120 7471: Mercu Units: mg/k HighLimit	ry (g %RPD	RPDLimit	Qual
Mercury Sample ID Client ID: Prep Date: Analyte Mercury	1406C93-001AMS Cell #20 #1 7/1/2014	0.18 SampT Batcl Analysis D Result 0.17	0.03: Type: N h ID: 1 Date: PQL 0.032	3 0.1667 1S 3997 7/1/2014 <u>SPK value</u> 2 0.1633	0 Tes F SPK Ref Val 0.01360	105 tCode: EF RunNo: 1 SeqNo: 5 %REC 95.9	80 PA Method 9615 68761 LowLimit 75	120 7471: Mercu Units: mg/K HighLimit 125	ry (g %RPD	RPDLimit	Qual
Mercury Sample ID Client ID: Prep Date: Analyte Mercury Sample ID	1406C93-001AMS Cell #20 #1 7/1/2014 1406C93-001AMSI	0.18 SampT Batcl Analysis D Result 0.17 D SampT	0.03 (ype: N h ID: 1 Date: PQL 0.03 (ype: N	3 0.1667 IS 3997 7/1/2014 SPK value 2 0.1633 ISD	0 Tes SPK Ref Val 0.01360 Tes	105 tCode: EF RunNo: 1 SeqNo: 5 %REC 95.9 tCode: EF	80 PA Method 9615 68761 LowLimit 75 PA Method	120 7471: Mercu Units: mg/H HighLimit 125 7471: Mercu	ry (g %RPD	RPDLimit	Qual
Mercury Sample ID Client ID: Prep Date: Analyte Mercury Sample ID Client ID:	1406C93-001AMS Cell #20 #1 7/1/2014 1406C93-001AMSI Cell #20 #1	0.18 SampT Batch Analysis D Result 0.17 D SampT Batch	0.03 (ype: N h ID: 1 Date: PQL 0.03 (ype: N h ID: 1	3 0.1667 1S 3997 7/1/2014 <u>SPK value</u> 2 0.1633 ISD 3997	0 Tes SPK Ref Val 0.01360 Tes F	105 tCode: EF RunNo: 19 SeqNo: 50 %REC 95.9 tCode: EF RunNo: 19	80 PA Method 9615 68761 LowLimit 75 PA Method 9615	120 7471: Mercu Units: mg/k HighLimit 125 7471: Mercu	ry (g %RPD ry	RPDLimit	Qual
Mercury Sample ID Client ID: Prep Date: Analyte Mercury Sample ID Client ID: Prep Date:	1406C93-001AMS Cell #20 #1 7/1/2014 1406C93-001AMSI Cell #20 #1 7/1/2014	0.18 SampT Batcl Analysis D Result 0.17 D SampT Batcl Analysis D	0.03 ype: N h ID: 1 Date: PQL 0.03 ype: N h ID: 1 Date:	3 0.1667 IS 3997 7/1/2014 SPK value 2 0.1633 ISD 3997 7/1/2014	0 Tes SPK Ref Val 0.01360 Tes F	105 tCode: EF RunNo: 1 SeqNo: 5 %REC 95.9 tCode: EF RunNo: 1 SeqNo: 5	80 PA Method 9615 588761 LowLimit 75 PA Method 9615 588762	120 7471: Mercu Units: mg/H HighLimit 125 7471: Mercu Units: mg/H	ry (g %RPD ry	RPDLimit	Qual
Mercury Sample ID Client ID: Prep Date: Analyte Mercury Sample ID Client ID: Prep Date: Analyte	1406C93-001AMS Cell #20 #1 7/1/2014 1406C93-001AMSI Cell #20 #1 7/1/2014	0.18 SampT Batch Analysis D Result 0.17 D SampT Batch Analysis D Result	0.03: Type: N h ID: 1 Date: PQL 0.03: Type: N h ID: 1 Date: PQL	3 0.1667 NS 3997 7/1/2014 SPK value 2 0.1633 NSD 3997 7/1/2014 SPK value	0 Tes SPK Ref Val 0.01360 Tes F SPK Ref Val	105 tCode: EF RunNo: 19 SeqNo: 50 95.9 tCode: EF RunNo: 19 SeqNo: 50 %REC	80 PA Method 9615 68761 LowLimit 75 PA Method 9615 58762 LowLimit	120 7471: Mercu Units: mg/k HighLimit 125 7471: Mercu Units: mg/k HighLimit	ry (g %RPD ry (g %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

WO#: 1406C93

11**-**Jul-14

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406C93

11**-**Jul-14

Client: J & L Landfarm

Project: Vadose Zone 5 yr metals Cell 20

Sample ID MB-13972	SampT	ype: ME	BLK	Test	tCode: El	PA Method	6010B: Soil I	Vetals		
Client ID: PBS	Batcl	n ID: 13	972 .	F	RunNo: 1	9639				
Prep Date: 6/30/2014	Analysis D)ate: 7/	2/2014	S	BegNo: 5	69716	Units: mg/K	g		·
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30			• • •					
Iron	ND	1.0								
Lead	∕ND	0.25								
Manganese	ND	0.10								
Selenium	ND	2.5							·	
Silver	ND	0.25								
Zinc	ND	2.5		· · · · · · · · · · · · · · · · · · ·			. *			
Zinc Sample ID LCS-13972	ND Samp1	2.5 ype: LC	s	Tesi	tCode: El	PA Method	6010B: Soil I	Vetals	<u> </u>	
Sample ID LCS-13972 Client ID: LCSS	ND SampT Batcl	2.5 ype: LC	S 972	Tesi	tCode: El RunNo: 1	PA Method 9639	6010B: Soil I	Vetals	<u></u> ,	<u></u>
Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014	ND SampT Batcl Analysis D	2.5 Type: LC IID: 13 Date: 7/	S 972 2/2014	Tesi R S	tCode: El RunNo: 1 BeqNo: 5	PA Møthod 9639 69717	6010B: Soil I Units: mg/K	Metals g	<u> </u>	<u></u>
Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte	ND SampT Batcl Analysis D Result	2.5 Type: LC 1 ID: 13 Pate: 7/ PQL	S 972 2/2014 SPK value	Tesi R SPK Ref Val	Code: El RunNo: 1 SeqNo: 5 %REC	PA Method 9639 69717 LowLimit	6010B: Soil I Units: mg/K HighLimit	Metals 9 %RPD	RPDLimit	Qual
Zinc Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic	ND SampT Batcl Analysis D Result 24	2.5 Type: LC 1D: 13 Pate: 7/ PQL 2.5	S 972 2/2014 SPK value 25.00	Tesi F S SPK Ref Val 0	ICode: El RunNo: 1 SeqNo: 5 %REC 96.4	PA Method 9639 69717 LowLimit 80	6010B: Soil I Units: mg/K HighLimit 120	Metals 9 %RPD	RPDLimit	Qual
Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium	ND SampT Batcl Analysis D Result 24 24	2.5 Type: LC 1D: 13 Pate: 7/ PQL 2.5 0.10	S 972 2/2014 SPK value 25.00 25.00	Tesi F S SPK Ref Val 0 0	Code: El RunNo: 1 GeqNo: 5 %REC 96.4 97.3	PA Method 9639 69717 LowLimit 80 80	6010B: Soil I Units: mg/K HighLimit 120 120	Metals g %RPD	RPDLimit	Qual
Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium	ND SampT Batcl Analysis D Result 24 24 24 24	2.5 Type: LC 1 ID: 13 Pate: 7/ PQL 2.5 0.10 0.10	S 972 2/2014 SPK value 25.00 25.00 25.00	Tesi F S SPK Ref Val 0 0 0 0	Code: El RunNo: 19 GegNo: 50 %REC 96.4 97.3 97.1	PA Method 9639 69717 LowLimit 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120	Vietals 9 %RPD	RPDLimit	Qual
Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium	ND SampT Batcl Analysis D Result 24 24 24 24 24	2.5 ype: LC b ID: 13 yate: 7/ PQL 2.5 0.10 0.10 0.30	S 972 2/2014 SPK value 25.00 25.00 25.00 25.00	Tesi F SPK Ref Val 0 0 0 0 0	tCode: El RunNo: 1 SeqNo: 5 %REC 96.4 97.3 97.1 97.5	PA Method 9639 69717 LowLimit 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120	Vietals 9 %RPD	RPDLimit	Qual
Zinc Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper	ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 24 26	2.5 ype: LC DE: 13: pate: 7/ PQL 2.5 0.10 0.10 0.30 0.30	S 972 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00	Tesi SPK Ref Val 0 0 0 0 0 0 0 0 0	ICode: El RunNo: 1 %REC 96.4 97.3 97.1 97.5 103	PA Method 9639 69717 LowLimit 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Zinc Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron	ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 24 26 26	2.5 ype: LC DE: 13: pate: 7/ PQL 2.5 0.10 0.10 0.30 0.30 1.0	S 972 2/2014 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0	ICode: El RunNo: 11 SeqNo: 5 %REC 96.4 97.3 97.1 97.5 103 104	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120	Vietals g %RPD	RPDLimit	Qual
Zinc Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead	ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 24 26 26 26 23	2.5 ype: LC 1D: 13 pate: 7/ PQL 2.5 0.10 0.10 0.30 0.30 1.0 0.25	S 972 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi F S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: El RunNo: 1 %REC 96.4 97.3 97.1 97.5 103 104 92.0	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120	Vetals 9 %RPD	RPDLimit	Qual
Zinc Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese	ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 26 26 26 23 23 24	2.5 ype: LC 1D: 13: pate: 7/ PQL 2.5 0.10 0.30 0.30 1.0 0.25 0.10	S 972 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi F S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: El RunNo: 1 SeqNo: 5 96.4 97.3 97.1 97.5 103 104 92.0 97.0	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Vietals g %RPD	RPDLimit	Qual
Zinc Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Cadmium Chromium Copper Iron Lead Manganese Selenium	ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 26 26 26 23 24 23	2.5 ype: LC D ID: 13 pate: 7/ PQL 2.5 0.10 0.30 0.30 1.0 0.25 0.10 2.5	S 972 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi F S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: El RunNo: 1 SeqNo: 5 96.4 97.3 97.1 97.5 103 104 92.0 97.0 90.4	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Zinc Zinc Sample ID LCS-13972 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver	ND SampT Batcl Analysis D Result 24 24 24 24 24 24 24 24 24 26 26 26 23 24 23 24 23 5.0	2.5 ype: LC DID: 13 bate: 7/ PQL 2.5 0.10 0.30 0.30 0.30 1.0 0.25 0.10 2.5 0.10 2.5 0.25	S 972 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi F S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	tCode: El RunNo: 1 SeqNo: 5 96.4 97.3 97.1 97.5 103 104 92.0 97.0 90.4 100	PA Method 9639 69717 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Vietais g %RPD	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
- P. Sample pH greater than 2.
- RL Reporting Detection Limit

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HALL Hall Environmental ENVIRONMENTAL ANALYSIS LABORATORY TEL: 505-345 Website: Wi	eental Analysis Labor 4901 Hawki Albuquerque, NM & -3975 FAX: 505-345 ww.hallenvironmenta	ratory ns NE 87105 Sam 4107 1.com	ple Log-In Check List
Client Name: J & L LANDFARM Work Order Nur	mber: 1406C93	• •	RcptNo: 1
Received by/date: CS Clo[27/14			
Logged By: Michelle Garcia 6/27/2014 8:50:00) AM	Minul Ga	nue
Completed By: Michelle Garcia 6/27/2014 10:19:5	53 AM	Minul Co	AUR
Reviewed By: Ar and 30114		• •	
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?	FedEx		
Log In	,		
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 🗌	
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 🗹	
10.VOA vials have zero headspace?	Yes 🗌	No 🗖	No VOA Vials 🗹
11. Were any sample containers received broken?	Yes 🗌	No 🗹	# of preserved
12.Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🔽	No 🗀	bottles checked for pH: (<2 or >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? (If no, notify customer for authorization.)	Yes 🗹	No 🗌	Checked by:

16. Was client notified of all	discrepancies with this order?	Yes 🗔	No 🗔	NA 🗹
Person Notified:		Date:		
By Whom:		Via: 🗌 eMail 🔲 P	hone 🗌 Fax 📋	In Person
Regarding:	an and the Property and the state of the sta	می از مراجع می این این این این این این این این این ای	na ay ang	
Client Instructions:		n an	an a	
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17. Additional remarks:

18. Cooler Information

Ī	Cooler No	Temp °C	Condition	Seal Intact	Seal No Seal Date	Signed By
E	1	5.5	Good	Yes		

Page 1 of 1

C	hain	-of-Cı	stody Record	Turn-Around Ti	me:					H			NV	/IF	20	NI	ME	NT/	AL.	
Client:				Standard	🗆 Rush					AN	IAI	Y	519	5 L	A	BO	RA	TO	RY	
5	FL I	Land		Project Name:	Vadose :	20ne				 WW	w.ha	llen	/iron	ment	tal.co	om				
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Phone	# 5	75-16	31-5765									Anal	ysis	Req	uest	t				ľ.
email o	r Fax#:	ELTO	6 9697 @ aol . com	Project Manage	 er:	······································		(<u>}</u>	ତ୍ରି		Ţ		(*)							
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the post-direct model and the post-direct model.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 14, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr metals Cell #27

OrderNo.: 1406C96

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: Cell #27 #1 CLIENT: J & L Landfarm Vadose Zone 5 yr metals Cell #27 Collection Date: 6/24/2014 7:35:00 AM **Project:** 1406C96-001 Received Date: 6/27/2014 8:50:00 AM Lab ID: Matrix: SOIL

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 4:58:07 PM	13998
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:40:52 AM	13973
Barium	140	0.10	mg/Kg	1	7/3/2014 10:54:31 AM	13973
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 2:15:12 PM	13973
Chromium	5.2	0.30	mg/Kg	1	7/2/2014 2:15:12 PM	13973
Copper	1.6	0.30	mg/Kg	1	7/2/2014 2:15:12 PM	13973
iron	5500	50	mg/Kg	50	7/2/2014 5:06:50 PM	13973
Lead	ND	25	mg/Kg	1	7/2/2014 2:15:12 PM	13973
Manganese	45	0.10	mg/Kg	1	7/3/2014 10:54:31 AM	13973
Selenium	ND	2.5	mg/Kg	1	7/3/2014 10:54:31 AM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:15:12 PM	13973
Zinc	12	2.5	mg/Kg	1	7/2/2014 2:15:12 PM	13973

- * Value exceeds Maximum Contaminant Level. Ε Value above quantitation range
- J Analyte detected below quantitation limits
- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- RL
- Page 1 of 7
- Reporting Detection Limit

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L LandfarmProject:Vadose Zone 5 yr metals Cell #27Lab ID:1406C96-002Matrix: SOIL

Client Sample ID: Cell #27 #2 Collection Date: 6/24/2014 7:44:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	: MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 4:59:55 PM	13998
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:44:33 AM	13973
Barium	240	0.096	mg/Kg	1	7/2/2014 2:19:31 PM	13973
Cadmium	ND	0.096	mg/Kg	1	7/2/2014 2:19:31 PM	13973
Chromium	1.6	0.29	mg/Kg	1	7/2/2014 2:19:31 PM	13973
Copper	1.3	0.29	mg/Kg	1	7/2/2014 2:19:31 PM	13973
Iron	1600	9.6	mg/Kg	10	7/2/2014 5:08:02 PM	13973
Lead	ND	24	mg/Kg	1	7/2/2014 2:19:31 PM	13973
Manganese	13	0.096	mg/Kg	1	7/2/2014 2:19:31 PM	13973
Selenium	· ND	2.4	mg/Kg	1	7/2/2014 2:19:31 PM	13973
Silver	ND	0.24	mg/Kg	1	7/2/2014 2:19:31 PM	13973
Zinc	4.3	2.4	mg/Kg	1.	7/2/2014 2:19:31 PM	13973

Qualifiers:	*	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated Metho	od Blank
-	E	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Dage 2 of 7
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	Fage 2 01 7
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	· .*		

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Client Sample ID: Cell #27 #3 Vadose Zone 5 yr metals Cell #27 Collection Date: 6/24/2014 7:52:00 AM **Project:** 1406C96-003 Received Date: 6/27/2014 8:50:00 AM Lab ID: Matrix: SOIL Analyses Result **RL** Qual Units **DF** Date Analyzed Batch

EPA METHOD 7471: MERCURY					Analyst:	MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 5:01:43 PM	13998
EPA METHOD 6010B: SOIL METALS					Analyst:	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:45:48 AM	13973
Barium	170	0.098	mg/Kg	1	7/2/2014 2:27:43 PM	13973
Cadmium	ND	0.098	mg/Kg	1	7/2/2014 2:27:43 PM	13973
Chromium	4.6	0.30	mg/Kg	1	7/2/2014 2:27:43 PM	13973
Copper	1.3	0.30	mg/Kg	1	7/2/2014 2:27:43 PM	13973
iron	5000	49	mg/Kg	50	7/2/2014 5:09:12 PM	13973
Lead	ND	25	mg/Kg	1	7/2/2014 2:27:43 PM	13973
Manganese	38	.0.098	mg/Kg	1	7/2/2014 2:27:43 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:27:43 PM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:27:43 PM	13973
Zinc	11	2.5	mg/Kg	1	7/2/2014 2:27:43 PM	13973

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

*

- Value exceeds Maximum Contaminant Level. Ε Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDImit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 3 of 7

Hall Environmental Analy	sis Laborat	ory, Inc.			Lab Order 1406C96 Date Reported: 7/14/20	14
CLIENT: J & L Landfarm Project: Vadose Zone 5 yr metals Ce Lab ID: 1406C96-004	e ID: Ce Date: 6/2 Date: 6/2	II #27 #4 4/2014 8:01:00 AM 7/2014 8:50:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 5:03:32 PM	13998
EPA METHOD 6010B: SOIL METALS	ŕ				Analys	t: ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:47:02 AM	13973
Barium	220	0.098	mg/Kg	1	7/2/2014 2:29:05 PM	13973
Cadmium	ND	0.098	mg/Kg	· · 1	7/2/2014 2:29:05 PM	13973
Chromium	1.6	0.30	mg/Kg	1	7/2/2014 2:29:05 PM	13973
Copper	1.2	0.30	mg/Kg	1	7/2/2014 2:29:05 PM	13973
Iron	1600	9.8	mg/Kg	10	7/2/2014 5:10:25 PM	13973
Lead	ND	25	mg/Kg	1	7/2/2014 2:29:05 PM	13973
Manganese	13	0.098	mg/Kg	1	7/2/2014 2:29:05 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:29:05 PM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:29:05 PM	13973

2.5

mg/Kg

1

7/2/2014 2:29:05 PM

13973

4.2

Zinc

Analytical Report

Qualifiers:	*	Value exceeds Maximum Contaminant Level.		в	Analyte detected in the associated Metho	d Blank
	Е	Value above quantitation range		Н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	. 1	ND	Not Detected at the Reporting Limit	Page 4 of 7
	0	RSD is greater than RSD limit		Р	Sample pH greater than 2.	1 age + 01 7
	R	RPD outside accepted recovery limits	: :	RL	Reporting Detection Limit	•
	S	Spike Recovery outside accepted recovery limits			2	

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406C96

14**-**Jul-14

Client: J & L Landfarm

Project:

Vadose Zone 5 yr metals Cell #27

Sample ID MB-13998 Client ID: PBS Prep Date: 7/1/2014	SampType: MBLK Batch ID: 13998 Analysis Date: 7/1/2014	TestCode: EPA Method RunNo: 19615 SeqNo: 568768	7471: Mercury Units: mg/Kg	
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Mercury	ND 0.033			
Sample ID LCS-13998	SampType: LCS	TestCode: EPA Method	7471: Mercury	
Sample ID LCS-13998 Client ID: LCSS	SampType: LCS Batch ID: 13998	TestCode: EPA Method RunNo: 19615	7471: Mercury	
Sample ID LCS-13998 Client ID: LCSS Prep Date: 7/1/2014	SampType: LCS Batch ID: 13998 Analysis Date: 7/1/2014	TestCode: EPA Method RunNo: 19615 SeqNo: 568769	7471: Mercury Units: mg/Kg	
Sample ID LCS-13998 Client ID: LCSS Prep Date: 7/1/2014 Analyte	SampType: LCS Batch ID: 13998 Analysis Date: 7/1/2014 Result PQL SPK value	TestCode: EPA Method RunNo: 19615 SeqNo: 568769 e SPK Ref Val %REC LowLimit	7471: Mercury Units: mg/Kg HighLimit %RPD	RPDLimit Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Ε 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 S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL

Page 5 of 7

Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1406C96 *14-Jul-14*

J & L Landfarm

Project: Vadose Zone 5 yr metals Cell #27

Client:

Sample ID	MB-13973	SampT	ype: ME	BLK	Tes	Code: El	PA Method	6010B: Soil I	Vietals		
Client ID:	PBS	Batch	ID: 13	973	· · · F	lunNo: 1	9639	•			
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	· 8	eqNo: 5	69718	Units: mg/K	g		· • •
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	· · · ·	ND	2.5	· · ·							
Barium		ND	0.10								
Cadmium		ND	0.10								
Chromium		ND	0.30						•		
Copper		ND	0.30								
Iron .	· .	ND	1.0			•					
Lead		ND	0.25								
Manganese		ND	0.10	•							
Selenium		ND	2.5								
Silver		ND	0.25	r							
Zinc		ND	2.5	<u> </u>							
Sample ID	LCS-13973	SampT	ype: LC	s	Tes	Code: El	PA Method	6010B: Soil M	letals		
Client ID:	LCSS	Batch	ID: 13	973	F	unNo: 19	9639	,			
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	. S	eqNo: 5	69719	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		24	2.5	25.00	0	97.9	80	120			
Barium		24	0.10	25.00	0	95.8	80	120			
Cadmium		24	0.10	25.00	0	96.9	80	120			
Chromium		24	0.30	25.00	0 .	96.1	80	120			
Copper	1	25	0.30	25.00	0	99.8	80	120	. •		
Iron		26	1.0	25.00	0	103	80	120			
Lead		23	0.25	25.00	0	92.2	80	120			
Manganese		24	0.10	25.00	0	95.3	80	120			
Selenium		24	2.5	25.00	. 0	95.1	80	,120			
Silver		5.0	0.25	5.000	0	99.3	80	120			
Zinc	·····	24	2.5	25.00	0	97.8	80	120			
Sample ID	1406C96-001AMS	SampT	ype: MS	;	Tes	Code: EF	PA Method	6010B: Soil M	letals	· ·	
Client ID:	Cell #27 #1	Batch	ID: 13	973	R	unNo: 19	9639				
Prep Date:	6/30/2014	Analysis Da	ate: '7/	2/2014	Ś	eqNo: 57	70024	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium		22	0.10	24.89	0	90.3	75	125			
Chromium		27	0.30	24.89	5.182	85.7	. 75	125			
Copper		25	0.30	· 24.89	1.639	93.6	75	125			
Lead		ND	25	24.89	0	77.8 ·	75	125			
Silver		4.6	0.25	4.977	0	91.7	75	125			
Zinc		32	2.5	24.89	12.39	78.8	75	125			

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 greater than 2.

RL Reporting Detection Limit

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r .

QC SUMMARY REPORT

WO#: 1406C96

14-Jul-14

Hall Environmental Analysis Laboratory, Inc.

Chent:	J & L Lai	ndfarm									
Project:	Vadose Z	one 5 yr n	netals C	ell #27							
										<u> </u>	
Sample ID	1406C96-001AMS	D SampT	ype: MS	SD	TestCode: EPA Method 6010B: Soil Metals						
Client ID:	Cell #27 #1	Batch	n ID: 13	973	F	RunNo: 1	9639				
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	S	SeqNo: 5	70025	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium		22	0.097	24.15	. 0	90.3	75	125	2.95	20	
Chromium		26	0.29	24.15	5.182	86.7	75	125	1.52	20	
Copper		24	0.29	24.15	1.639	94.2	75	125	2.22	20	
Lead		ND	24	24.15	0	78.3	75	125	0	20	
Silver		4.5	0.24	4.830	0	92.2	75	125	2.47	20	
Zinc		32	2.4	24.15	12.39	79.7	75	125	1.11	20	
Sample ID	1406C96-001AMS	SampT	ype: MS	 }	Tes	tCode: El	PA Method	6010B: Soil	Metals	<u></u>	
Client ID:	Cell #27 #1	Batch	n ID: 13	973	ਰ	RunNo: 1	9675				
Prep Date:	6/30/2014	Analysis D	ate: 7/	3/2014	s	SeqNo: 5	71156	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium		170	0.10	24.89	143.6	121	75	125			
Manganese		62	0.10	24.89	44.68	69.5	75	125			S
Selenium		18	25	24 89	٥	74 1	75	125			s
			2.0	21.00	U	74.1	75	120			0
Sample ID	1406C96-001AMS	 D SampT	ype: MS	SD	Tes	tCode: El	PA Method	6010B: Soil I	Metals		
Sample ID Client ID:	1406C96-001AMS Cell #27 #1	D SampT Batch	ype: MS	SD 973		tCode: El	PA Method 9675	6010B: Soil I	Metals	<u> </u>	
Sample ID Client ID: Prep Date:	1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D	ype: MS 1D: 13 Date: 7/	3/2014	Tesi Fi	Code: El RunNo: 1 SeqNo: 5	PA Method 9675 71157	6010B: Soil I	Metals		
Sample ID Client ID: Prep Date: Analyte	1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result	ype: MS 1D: 13 Pate: 7/ PQL	973 3/2014 SPK value	Tes F SPK Ref Val	Code: El RunNo: 19 SeqNo: 5 %REC	PA Method 9675 71157 LowLimit	6010B: Soil I Units: mg/K HighLimit	Metals Xg %RPD	RPDLimit	Quat
Sample ID Client ID: Prep Date: Analyte Barium	1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result 260	ype: MS n ID: 13 pate: 7/ PQL 0.097	5D 973 3/2014 SPK value 24.15	Tesi F S SPK Ref Val 143.6	Code: El RunNo: 19 SeqNo: 5 <u>%REC</u> 489	PA Method 9675 71157 LowLimit 75	6010B: Soil I Units: mg/k HighLimit 125	Metals (g %RPD 40.3	RPDLimit 20	Qual
Sample ID Client ID: Prep Date: Analyte Barium Manganese	1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result 260 66	ype: MS n ID: 13 Date: 7/ PQL 0.097 0.097	SD 973 3/2014 SPK value 24.15 24.15	Tesi SPK Ref Val 143.6 44.68	Code: El RunNo: 19 SeqNo: 5 <u>%REC</u> 489 89.7	PA Method 9675 71157 LowLimit 75 75	6010B: Soil I Units: mg/k HighLimit 125 125	Metals 39 %RPD 40.3 6.83	RPDLimit 20 20	Qual ERS
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium	1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result 260 66 18	ype: MS Date: 7/ PQL 0.097 0.097 2.4	30 973 3/2014 SPK value 24.15 24.15 24.15	Tesi F S SPK Ref Val 143.6 44.68 0	Code: El RunNo: 19 SeqNo: 5 %REC 489 89.7 75.9	PA Method 9675 71157 LowLimit 75 75 75	6010B: Soil I Units: mg/k HighLimit 125 125 125	Metals 5g %RPD 40.3 6.83 0.657	RPDLimit 20 20 20	Quat
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS	D SampT Batch Analysis D Result 260 66 18 SampT	ype: MS n ID: 13 bate: 7/ PQL 0.097 0.097 2.4	SD 973 3/2014 SPK value 24.15 24.15 24.15	5 Tesi SPK Ref Val 143.6 44.68 0 Tes	Code: El RunNo: 19 SeqNo: 5 %REC 489 89.7 75.9	PA Method 9675 71157 LowLimit 75 75 75 75	6010B: Soil I Units: mg/k HighLimit 125 125 125 6010B: Soil	Metals 5g %RPD 40.3 6.83 0.657 Metals	RPDLimit 20 20 20	Qual ERS
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium Sample ID Client ID:	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1	D SampT Batch Analysis D Result 260 66 18 SampT Batch	ype: MS DE: 13 pate: 7/ PQL 0.097 0.097 2.4 ype: MS DE: 13	3D 973 3/2014 24.15 24.15 24.15 3 973	Tesi SPK Ref Val 143.6 44.68 0 Tes	Code: El RunNo: 19 SeqNo: 5 %REC 489 89.7 75.9 tCode: El RunNo: 19	PA Method 9675 71157 LowLimit 75 75 75 PA Method 9760	6010B: Soil I Units: mg/k HighLimit 125 125 125 6010B: Soil I	Metals 59 40.3 6.83 0.657 Metals	RPDLimit 20 20 20	Qual ERS
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium Sample ID Client ID: Prep Date:	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result 260 66 18 SampT Batch Analysis D	ype: MS DD: 13 pate: 7/ PQL 0.097 0.097 2.4 ype: MS n ID: 13 pate: 7/	SD 973 3/2014 24.15 24.15 24.15 24.15 3 973 9/2014	5 Tesi SPK Ref Val 143.6 44.68 0 Tesi F	Code: El RunNo: 1 %REC 489 89.7 75.9 tCode: El RunNo: 1 SeqNo: 5	PA Method 9675 71157 LowLimit 75 75 75 PA Method 9760 74075	6010B: Soil I Units: mg/k HighLimit 125 125 125 6010B: Soil I Units: mg/k	Metals 59 %RPD 40.3 6.83 0.657 Metals	RPDLimit 20 20 20	Qual ERS
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium Sample ID Client ID: Prep Date: Analyte	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result 260 66 18 SampT Batch Analysis D Result	ype: MS 1 [D: 13 pate: 7/ PQL 0.097 0.097 2.4 ype: MS 1 [D: 13 pate: 7/ PQL PQL	3D 973 3/2014 24.15 24.15 24.15 3 973 9/2014 SPK value	Tesi SPK Ref Val 143.6 44.68 0 Tesi Fi SPK Ref Val	Code: El RunNo: 19 SeqNo: 5 %REC 489 89.7 75.9 tCode: El RunNo: 19 SeqNo: 5 %REC	PA Method 9675 71157 LowLimit 75 75 PA Method 9760 74075 LowLimit	6010B: Soil I Units: mg/k HighLimit 125 125 125 6010B: Soil I Units: mg/k HighLimit	Metals (g 40.3 6.83 0.657 Metals (g %RPD	RPDLimit 20 20 20	Quai ERS
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium Sample ID Client ID: Prep Date: Analyte Arsenic	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result 260 66 18 SampT Batch Analysis D Result 27	ype: MS DE: 13 pate: 7/ PQL 0.097 2.4 ype: MS DE: 13 pate: 7/ PQL 12	SD 973 3/2014 24.15 24.15 24.15 24.15 3 973 9/2014 SPK value 24.89	Tesi SPK Ref Val 143.6 44.68 0 Tesi SPK Ref Val 0	Code: El RunNo: 1 %REC 489 89.7 75.9 Code: El RunNo: 1 SeqNo: 5 %REC 109	PA Method 9675 71157 LowLimit 75 75 75 PA Method 9760 74075 LowLimit 75	6010B: Soil I Units: mg/k HighLimit 125 125 6010B: Soil I Units: mg/k HighLimit 125	Metals 59 %RPD 40.3 6.83 0.657 Metals 59 %RPD	RPDLimit 20 20 20 RPDLimit	Qual ERS Qual
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium Sample ID Client ID: Prep Date: Analyte Arsenic	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS	D SampT Batch Analysis D Result 260 66 18 SampT Batch Analysis D Result 27 D SampT	ype: MS pate: 7/ PQL 0.097 0.097 2.4 ype: MS pate: 7/ PQL 12 ype: MS	SPK value 24.15 24.15 24.15 24.15 3 973 9/2014 SPK value 24.89 5D	Tesi SPK Ref Val 143.6 44.68 0 Tesi SPK Ref Val 0 Tesi	Code: El RunNo: 19 SeqNo: 5 %REC 489 89.7 75.9 tCode: El RunNo: 19 SeqNo: 5 %REC 109	PA Method 9675 71157 LowLimit 75 75 PA Method 9760 74075 LowLimit 75 PA Method	6010B: Soil I Units: mg/K HighLimit 125 125 6010B: Soil I Units: mg/K HighLimit 125 6010B: Soil I	Metals 59 40.3 6.83 0.657 Metals 59 %RPD Metals	RPDLimit 20 20 20 RPDLimit	Quat ERS Qual
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium Sample ID Client ID: Prep Date: Analyte Arsenic Sample ID Client ID:	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1	D SampT Batch Analysis D Result 260 66 18 SampT Batch Analysis D Result 27 D SampT Batch	ype: MS pate: 7/ PQL 0.097 0.097 2.4 ype: MS pate: 7/ PQL 12 ype: MS pate: 13 pate: 7/ PQL 12	SD 973 3/2014 24.15 24.15 24.15 24.15 3 973 9/2014 SPK value 24.89 5D 973	Tesi SPK Ref Val 143.6 44.68 0 Tesi SPK Ref Val 0 Tesi F	Code: El RunNo: 11 SeqNo: 5 %REC 489 89.7 75.9 Code: El RunNo: 1 RunNo: 1 RunNo: 1	PA Method 9675 71157 LowLimit 75 75 75 PA Method 9760 74075 LowLimit 75 PA Method 9760	6010B: Soil I Units: mg/k HighLimit 125 125 6010B: Soil I Units: mg/k HighLimit 125 6010B: Soil I	Metals 59 %RPD 40.3 6.83 0.657 Metals 59 %RPD Metals	RPDLimit 20 20 20 RPDLimit	Qual ERS Qual
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium Sample ID Client ID: Prep Date: Analyte Arsenic Sample ID Client ID: Prep Date:	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result 260 66 18 SampT Batch Analysis D Result 27 D SampT Batch Analysis D	ype: MS a ID: 13 pate: 7/ PQL 0.097 2.4 ype: MS a ID: 13 pate: 7/ PQL 12 ype: MS a ID: 13 pate: 7/	24.05 3/2014 SPK value 24.15 24.15 24.15 3 973 9/2014 SPK value 24.89 5D 973 9/2014	Tesi SPK Ref Val 143.6 44.68 0 Tesi SPK Ref Val 0 Tesi Fi SSPK Ref Val 0	Code: El RunNo: 19 SeqNo: 5 %REC 489 89.7 75.9 tCode: El RunNo: 19 SeqNo: 5 tCode: El RunNo: 19 tCode: El RunNo: 19 tCode: El RunNo: 19	PA Method 9675 71157 LowLimit 75 75 PA Method 9760 74075 LowLimit 75 PA Method 9760 74076	6010B: Soil I Units: mg/K HighLimit 125 125 6010B: Soil I Units: mg/K HighLimit 125 6010B: Soil I Units: mg/K	Metals (g 40.3 6.83 0.657 Metals (g %RPD Metals (g	RPDLimit 20 20 20	Qual ERS Qual
Sample ID Client ID: Prep Date: Analyte Barium Manganese Selenium Sample ID Client ID: Prep Date: Analyte Sample ID Client ID: Prep Date: Analyte	1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014 1406C96-001AMS Cell #27 #1 6/30/2014	D SampT Batch Analysis D Result 260 66 18 SampT Batch Analysis D Result Analysis D Result	ype: MS pate: 7/ PQL 0.097 0.097 2.4 ype: MS p1D: 13 yate: 7/ PQL 12 ype: MS p1D: 13 yate: 7/ PQL	SD 973 3/2014 SPK value 24.15 24.15 24.15 24.15 3 973 9/2014 SPK value 24.89 3D 973 9/2014 SPK value	Tesi SPK Ref Val 143.6 44.68 0 Tesi SPK Ref Val 0 Tesi SPK Ref Val	Code: El RunNo: 19 SeqNo: 5 %REC 489 89.7 75.9 COde: El RunNo: 19 SeqNo: 5 %REC 109 COde: El RunNo: 19 SeqNo: 5 %REC	PA Method 9675 71157 LowLimit 75 75 75 PA Method 9760 74075 LowLimit 75 PA Method 9760 74076 LowLimit	6010B: Soil I Units: mg/k HighLimit 125 125 6010B: Soil I Units: mg/k HighLimit Units: mg/k HighLimit	Metals (g %RPD 40.3 6.83 0.657 Metals (g %RPD Metals (g %RPD	RPDLimit 20 20 20 RPDLimit	Qual ERS Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Sample pH greater than 2. Р
- **Reporting Detection Limit** RL

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HALL Hall Environmental ENVIRONMENTAL ANALYSIS LABORATORY TEL: 505-345-397 Website: www.k	al Analysis Labora 4901 Hawkins Ibuquerque, NM 87 75 FAX: 505-345-4 hallenvironmental.	uon, NE 2105 Sam 2107 com	ple Log-In Check Lis	st
Client Name: J & L LANDFARM Work Order Numbe	IT: 1406C96		RcptNo: 1	
Received by/date: CS OU27/14				
Logged By: Michelle Garcia 6/27/2014 8:50:00 AM	v.	Minute Con	un	
Completed By: Michelle Garcia 6/27/2014 10:23:31 A	M	Minu Con		.
Reviewed By: Ar 06/30/14		· - 7*		
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?	FedEx			
Log In				
4. Was an attempt made to cool the samples?	Yes 🔽	No 🗆		
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗖		
	Non M		н н — — — — — — — — — — — — — — — — — —	
O. Sample(s) in proper container(s)?				
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 VOA Vials 🗹	
11. Were any sample containers received broken?	Yes	No 🗹 [
			# of preserved bottles checked	
12. Does paperwork match bottle labels?	Yes 🗹	No 🗌	for pH: $\sqrt{2 \text{ or } > 12 \text{ unless } r}$	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 Hendling (if ennliceble)				
16. Was client notified of all discrepancies with this order?	Yes 🗌	No 🗆		
Person Notified: Date:				
By Whom: Via:	eMail F	hone 🗍 Fax	In Person	
Regarding:				
Client Instructions:	·····		and the second to the second sec	
17. Additional remarks:				
18. <u>Cooler Information</u>				
Cooler No Temp ºC Condition Seal Intact Seal No	Seal Date	Signed By		
1 0.5 Good Yes			· .	
Page 1 of 1	<u> </u>	_ <u></u>	<u></u>	
-		. `	· · · ·	

Turn-Around Time: Standard I Rush Project Name: Vadese zone 5 yr metals Cell # 27 Project #:	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request				
Project Manager: Judg Roberts Sampler: Shar JM On Ice: Y Yes INo Sample Temperature: 5.5° Container Type and # Type HEAL No.	EX + MTBE + TMB's (8021) EX + MTBE + TPH (Gas only) H 8015B (GRO / DRO / MRO) H (Method 504.1) H's (8310 or 8270 SIMS) H's (8310 or 8270 SIMS) Hotod 504.1) Hotod 504.1) O (Semi-VOA) O (Semi-VOA) D (Semi-VOA) Hubbles (Y or N)				
$ \begin{array}{c} 1406 (94) \\ - 001 \\ - 002 \\ - 003 \\ - 004 \\ - 004 \\ \end{array} $					
Received by: Date Time Received by: Date Time	Remarks:				
	Turn-Around Time: Project Name: Valuese zorve 5 yr metals Cell # 27 Project Manager: Project Manager: 7 Judy Roberts Sampler: Sho Ju- On ice: Yes DNo Sample Temperature: 5,5° Container Type and # Type HEAL No. 14D lg C 9 lg - co 1 - co 2 - co 3 - co 4 -				

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 14, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr metals Cell 28

OrderNo.: 1406C98

Dear Judy Roberts: -

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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,

andis

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Lab Order 1406C98

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

 CLIENT: J & L Landfarm
 Client Sample ID: Cell #28 #1

 Project: Vadose Zone 5 yr metals Cell 28
 Collection Date: 6/24/2014 8:18:00 AM

 Lab ID: 1406C98-001
 Matrix: SOIL
 Received Date: 6/27/2014 8:50:00 AM

 Analyses
 Result
 RL Qual Units
 DF Date Analyzed
 Batch

	HODUIC			21	Dute I maij Zea	Dutten
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 5:05:22 PM	13998
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 2:30:28 PM	13973
Barium	61	0.099	mg/Kg	1	7/2/2014 2:30:28 PM	13973
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 2:30:28 PM	13973
Chromium	3.4	0.30	mg/Kg	1	7/2/2014 2:30:28 PM	13973
Copper	ND	0.30	mg/Kg	1	7/2/2014 2:30:28 PM	13973
iron	2800	20	mg/Kg	20	7/2/2014 5:11:35 PM	13973
Lead	ND	25	mg/Kg	1	7/2/2014 2:30:28 PM	13973
Manganese	34	0.099	mg/Kg	1	7/2/2014 2:30:28 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:30:28 PM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:30:28 PM	13973
Zinc	5.7	2.5	mg/Kg	1	7/2/2014 2:30:28 PM	13973

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank	
-	Ε	Value above quantitation range	Н	Holding times for preparation or analysis	aration or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 6	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 1 01 0	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

Hall Environmental Analysi		Lab Order 1406C98 Date Reported: 7/14/2014				
CLIENT: J & L Landfarm Project: Vadose Zone 5 yr metals Cell Lab ID: 1406C98-002	28 Matrix: S	SOIL	e ID: Ce Date: 6/2 Date: 6/2	ell #28 #2 /24/2014 8:28:00 AM /27/2014 8:50:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 5:07:12 PM	13998
EPA METHOD 6010B: SOIL METALS				· ·	Analys	t: ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:53:17 AM	13973
Barium	270	0.19	mg/Kg	2	7/2/2014 5:12:46 PM	13973
Cadmium	ND	0.097	mg/Kg	1	7/2/2014 2:31:52 PM	13973
Chromium	2.5	0.29	mg/Kg	1	7/2/2014 2:31:52 PM	13973
Copper	1.4	0.29	mg/Kg	1	7/2/2014 2:31:52 PM	13973
Iron	2200	19	ˈmg/Kg	20	7/2/2014 5:13:52 PM	13973
Lead	ND	24	mg/Kg	1	7/2/2014 2:31:52 PM	13973
Manganese	23	0.097	mg/Kg	1	7/2/2014 2:31:52 PM	13973
Selenium	ND	2.4	mg/Kg	1	7/2/2014 2:31:52 PM	13973
Silver	ND	0.24	mg/Kg	1	7/2/2014 2:31:52 PM	13973
Zinc	6.1	2.4	mg/Kg	1	7/2/2014 2:31:52 PM	13973

de la c

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	d Blank	
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis exceeded		
	J	Analyte detected below quantitation limits	ND '	Not Detected at the Reporting Limit	Page 2 of 6	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 460 2 01 0	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

Lab Order 1406C98

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 J & L Landfarm
 Client Sample ID: Cell #28 #3

 Project:
 Vadose Zone 5 yr metals Cell 28
 Collection Date: 6/24/2014 8:37:00 AM

 Lab ID:
 1406C98-003
 Matrix: SOIL
 Received Date: 6/27/2014 8:50:00 AM

 Analyses
 Result
 RL
 Qual
 Units
 DF Date Analyzed
 Batch

EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 5:12:46 PM	13998
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.4	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Barium	63	0.098	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Cadmium	ND	0.098	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Chromium	3.4	0.29	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Copper	ND	0.29	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Iron	2800	20	mg/Kg	20	7/2/2014 5:15:06 PM	13973
Lead	ND	24	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Manganese	35	0.098	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Selenium	ND	2.4	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Silver	ND	0.24	mg/Kg	1	7/2/2014 2:33:19 PM	13973
Zinc	5.6	2.4	mg/Kg	1	7/2/2014 2:33:19 PM	13973

Qualifiers: *		Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank	
	Е	Value above quantitation range	· H	Holding times for preparation or analysis exceeded		
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 6	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 61 6	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406C98 Date Reported: 7/14/2014

CLIENT: J & L L,andfarm Cli

Project:Vadose Zone 5 yr metals Cell 28Lab ID:1406C98-004Matrix: SOIL

Client Sample ID: Cell #28 #4 Collection Date: 6/24/2014 8:46:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	: MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 5:14:31 PM	13998
EPA METHOD 6010B: SOIL METALS		· · ·	÷	•	Analys	ELS
Arsenic	ND	2.4	mg/Kg	1	7/2/2014 2:34:41 PM	13973
Barium	57	0.097	mg/Kg	<i>ं</i> 1	7/2/2014 2:34:41 PM	13973
Cadmium	ND	0.097	mg/Kg	1	7/2/2014 2:34:41 PM	13973
Chromium	3.4	0.29	mg/Kg	1	7/2/2014 2:34:41 PM	13973
Copper	ND	0.29	mg/Kg	1	7/2/2014 2:34:41 PM	13973
Iron	2900	19	mg/Kg	20	7/2/2014 5:16:16 PM	13973
Lead	ND	24	mg/Kg	1	7/2/2014 2:34:41 PM	13973
Manganese	34	0.097	mg/Kg	1	7/2/2014 2:34:41 PM	13973
Selenium	ND	2.4	mg/Kg	1	7/2/2014 2:34:41 PM	13973
Silver	NĎ	0.24	mg/Kg	1	7/2/2014 2:34:41 PM	13973
Zinc	5.6	2.4	mg/Kg	1	7/2/2014 2:34:41 PM	13973

Qualifiers:	*	Value exceeds Maximum Contaminant Level.			в	Analyte detected in the associated Metho	d Blank
	Е	Value above quantitation range	19 M		Н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits		·	ND	Not Detected at the Reporting Limit	Page 4 of 6
	0	RSD is greater than RSDlimit	:		Р	Sample pH greater than 2.	1 age 4 01 0
	R	RPD outside accepted recovery limits		• •	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits					

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: J & L Landfarm

Project: Vadose Zone 5 yr metals Cell 28

Sample ID MB-13998	SampType: MBLK Batch ID: 13998	TestCode: EPA Method RunNo: 19615	7471: Mercury	
Prep Date: 7/1/2014	Analysis Date: 7/1/2014	SeqNo: 568768	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Mercury	ND 0.033	, <u></u> _, <u></u> _, <u></u> _, <u></u> _		
Sample ID 1 CC 12008		-		
Sample ID 103-13990	SampType: LCS	TestCode: EPA Method	7471: Mercury	
Client ID: LCSS	SampType: LCS Batch ID: 13998	TestCode: EPA Method RunNo: 19615	7471: Mercury	
Client ID: LCSS Prep Date: 7/1/2014	SampType: LCS Batch ID: 13998 Analysis Date: 7/1/2014	TestCode: EPA Method RunNo: 19615 SeqNo: 568769	7471: Mercury Units: mg/Kg	
Client ID: LCSS Prep Date: 7/1/2014 Analyte	SampType: LCS Batch ID: 13998 Analysis Date: 7/1/2014 Result PQL SPK value	TestCode: EPA Method RunNo: 19615 SeqNo: 568769 SPK Ref Val %REC LowLimit	7471: Mercury Units: mg/Kg HighLimit %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

WO#: 1406C98

14-Jul-14

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406C98

14-Jul-14

Client: J & L Landfarm

=

Project: Vadose Zone 5 yr metals Cell 28

Sample ID MB-13973	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	6010B: Soil I	Vietals		
Client ID: PBS	Batch	n ID: 13	973	F	RunNo: 1	9639				
Prep Date: 6/30/2014	Analysis D)ate: 7/	2/2014	S	SeqNo: 5	69718	Units: mg/K	g	~	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10						1		
Cadmium	ND	0.10		e.						
Chromium	ND	0.30							•	
Copper	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10						,		
Selenium	ND	2.5								
Silver	ND	0.25								
Zinc	ND	[·] 2.5								
Sample ID LCS-13973	SampT	ype: LC	S	Tes	Code: El	PA Method	6010B: Soil I	Metals		
Sample ID LCS-13973 Client ID: LCSS	SampT Batch	ype: LC	S 973	Tesi R	Code: El	PA Method 9639	6010B: Soil I	Metals .	<u>.</u> .	
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014	SampT Batch Analysis D	ype: LC n ID: 13 pate: 7/	S 973 2/2014	Tesi F S	tCode: El tunNo: 1 teqNo: 5	PA Method 9639 69719	6010B: Soil I Units: mg/K	Metals 9	<u>.</u> .	
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte	SampT Batch Analysis D Result	ype: LC n ID: 13 pate: 7/ PQL	S 973 2/2014 SPK value	Tes F S SPK Ref Val	Code: El RunNo: 19 GeqNo: 50 %REC	PA Method 9639 69719 LowLimit	6010B: Soil M Units: mg/K HighLimit	Metals g %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic	SampT Batch Analysis D Result 24	ype: LC n ID: 13 Pate: 7/ PQL 2.5	S 973 2/2014 SPK value 25.00	Tes F S SPK Ref Val 0	Code: El RunNo: 19 BeqNo: 50 %REC 97.9	PA Method 9639 69719 LowLimit 80	6010B: Soil I Units: mg/K HighLimit 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium	SampT Batch Analysis D Result 24 24	ype: LC n ID: 13 pate: 7/ PQL 2.5 0.10	S 973 2/2014 SPK value 25.00 25.00	Tes F S SPK Ref Val 0 0	Code: El RunNo: 19 BeqNo: 50 %REC 97.9 95.8	PA Method 9639 69719 LowLimit 80 80	6010B: Soil I Units: mg/K HighLimit 120 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium	SampT Batch Analysis D Result 24 24 24	ype: LC n ID: 13 Date: 7/ PQL 2.5 0.10 0.10	S 973 2/2014 SPK value 25.00 25.00 25.00	Tes F S SPK Ref Val 0 0 0	Code: El RunNo: 19 SeqNo: 50 %REC 97.9 95.8 96.9	PA Method 9639 69719 LowLimit 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium	SampT Batch Analysis D Result 24 24 24 24 24	ype: LC n ID: 13: pate: 7/ PQL 2.5 0.10 0.10 0.30	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00	Tes F S SPK Ref Val 0 0 0 0 0	Code: El RunNo: 19 %REC 97.9 95.8 96.9 96.1	PA Method 9639 69719 LowLimit 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper	SampT Batch Analysis D Result 24 24 24 24 24 24 25	ype: LC n ID: 13: Pate: 7/ PQL 2.5 0.10 0.10 0.30 0.30	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00	Tes F SPK Ref Val 0 0 0 0 0 0 0	Code: El tunNo: 19 seqNo: 50 %REC 97.9 95.8 96.9 96.1 99.8	PA Method 9639 69719 LowLimit 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron	SampT Batch Analysis D Result 24 24 24 24 24 24 25 26	ype: LC n ID: 13: pate: 7/ PQL 2.5 0.10 0.10 0.30 0.30 1.0	S 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tes F SPK Ref Val 0 0 0 0 0 0 0 0 0 0	Code: El RunNo: 19 SeqNo: 50 %REC 97.9 95.8 96.9 96.1 99.8 103	PA Method 9639 69719 LowLimit 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead	SampT Batch Analysis D Result 24 24 24 24 24 25 26 23	ype: LC p ID: 13 pate: 7/ PQL 2.5 0.10 0.30 0.30 0.30 1.0 0.25	S 2/2014 SPK value 25.00 25	Tes F S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: El RunNo: 19 SeqNo: 50 97.9 95.8 96.9 96.1 99.8 103 92.2	PA Method 9639 69719 LowLimit 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese	SampT Batch Analysis D Result 24 24 24 24 25 26 23 24	ype: LC n ID: 13 pate: 7/ PQL 2.5 0.10 0.30 0.30 0.30 1.0 0.25 0.10	S 2/2014 SPK value 25.00 25	Tes F S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: El RunNo: 19 SeqNo: 50 97.9 95.8 96.9 96.1 99.8 103 92.2 95.3	PA Method 9639 69719 LowLimit 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium	SampT Batch Analysis D Result 24 24 24 24 25 26 23 26 23 24 24	ype: LC p ID: 13 pate: 7/ PQL 2.5 0.10 0.30 0.30 1.0 0.25 0.10 2.5	S 2/2014 SPK value 25.00 25	Tes F S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: El RunNo: 19 SeqNo: 56 97.9 95.8 96.9 96.1 99.8 103 92.2 95.3 95.1	PA Method 9639 69719 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Metals 9 %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver	SampT Batch Analysis D Result 24 24 24 24 25 26 23 24 23 24 24 25	ype: LC plD: 13 pate: 7/ POL 2.5 0.10 0.10 0.30 0.30 1.0 0.25 0.10 2.5 0.25	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 5.000	Tes F S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: El RunNo: 1 SeqNo: 5 %REC 97.9 95.8 96.9 96.1 99.8 103 92.2 95.3 95.1 99.3	PA Method 9639 69719 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil I Units: mg/K HighLimit 120 120 120 120 120 120 120 120 120 120	Metals 9 %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 6 of 6

HALL Environmental Analysis Laboratory	Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com				Sample Log-In Check List			
Client Name: J & L LANDFARM	Work Order Numbe	er: 1406	C98		RcptNo:	1		
Received by/date: CS	06/27/14	_,						
Logged By: Michelle Garcia	6/27/2014 8:50:00 AM	M		minu	price			
Completed By: Michelle Garcia	6/27/2014 10:41:55 A	M		Mirille (prus			
Reviewed By: Ar 0/1/30/1	4.	- 1 -			•			
Chain of Custody					· · · · · · · · · · · · · · · · · · ·			
1. Custody seals intact on sample bottles?		Yes		No 🗆	Not Present 🗹			
2. Is Chain of Custody complete?		Yes	\checkmark	No 🗔	Not Present			
3. How was the sample delivered?		Fed	<u>Ex</u>					
l og in						•		
4. Was an attempt made to cool the samples	?	Yes		No 🗆] NA 🗆			
5. Were all samples received at a temperature	e 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)?	Yes		No 🗌]			
8. Are samples (except VOA and ONG) prope	rty preserved?	Yes		No				
9. Was preservative added to bottles?		Yes		No 🗹				
10.VOA vials have zero headspace?	1	Yes		No 🗌	No VOA Vials 🗹			
11. Were any sample containers received brok	en?	Yes		No 🔽	# of preserved			
12. Does paperwork match bottle labels?		Yes		No 🗆	for pH:	· · · ·		
(Note discrepancies on chain of custody)				M- 1	(<2)	or >12 unless noted)		
13. Are matrices correctly identified on Chain o	f Custody?	Yes] ···· , -····· -			
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No [Checked by:			
<u>Special Handling (if applicable)</u> 16. Was client notified of all discrepancies with	this order?	Yes		No 🗆] NA 🗹			
Person Notified:	Date:	[7		
By Whom: Regarding: Client Instructions:	Via:			Phone 🗌 Fa	x 🗍 In Person			
17. Additional remarks:	and a second					_		

18. Cooler Information

Cooler No	Temp ℃	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Yes			

Page 1 of 1
Cilent: Mailing Po Phone email co	Chain Address Box #: 5 r Fax#: Package:	-of-Cu andfa 356 75-6 51/20	Istody Record Im Hobbs NM 88241 31-5765 9497 @ gol . com	Project Manager: Project Manager: Jum-Around Time: Project Manager: Juda RobeTS			HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request (1208) g))))))))))))))))))								Y					
Accred	itation AP) (Type)	□ Othe	Level 4 (Full Validation)	Sampler: Shore On Ice: Ye Sample Temperatu		No 5°	rbe + TMB's	rbe + TPH (G	3 (GRO / DRC	od 504.1)	10 or 8270 SI	etais	CI,NO ₃ ,NO ₂ ,P	cides / 8082 F	(A)	i-VOA)	*			s (Y or N)
Date	Time	Matrix	Sample Request ID	Container Prese Type and # Ty	ervative ype	HEAL NO. 14010098	BTEX + M1	BTEX + MT	TPH 8015E	EDB (Meth	PAH's (831	RCRA 8 M	Anions (F,(8081 Pestic	8260B (VO	8270 (Sem	MeTels			Air Bubbles
ि संप	0818	spi (Coll # 28 #1	1 mgbs ic	ce	- 001								-			X		\rightarrow	_
	0828		<u><u><u></u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>	┼╌╂╌╌┼╌┨		-002											X		-+	
	0001					- 007						-					<u> </u>	+	-+	
	4																-	+		
					·····															
						Bala Time														
Date:		Relinquishe Relinquishe samptes subn	ed by: http: nitted to Hall Environmental may be subc	Received by:	laboratories.	Date Time		Su A		ba C		r C	u F	E F	2 b	Mr	n H	g S	e Ae	2n

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 14, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr metals Cell 29

OrderNo.: 1406C99

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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 1406C99 Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone 5 yr metals Cell 29

Client Sample ID: Cell #29 #1 Collection Date: 6/24/2014 9:01:00 AM

Lab ID: 1406C99-001	Matrix: S	SOIL	Received 1	Date: 6/2	27/2014 8:50:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 5:16:14 PM	13998
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:56:59 AM	13973
Barium	120	0.098	mg/Kg	· 1	7/2/2014 2:36:04 PM	13973
Cadmium	ND	0.098	mg/Kg	1	7/2/2014 2:36:04 PM	13973
Chromium	6.6	0.29	mg/Kg	1	7/2/2014 2:36:04 PM	13973
Copper	4.7	0.29	mg/Kg	1	7/2/2014 2:36:04 PM	13973
Iron	7600	49	mg/Kg	50	7/2/2014 5:23:26 PM	13973
Lead	ND	25	mg/Kg	1	7/2/2014 2:36:04 PM	13973
Manganese	280	0.20	mg/Kg	2	7/2/2014 5:17:26 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:36:04 PM	13973
Silver	ND	0.25	mg/Kg	1 1	7/2/2014 2:36:04 PM	13973
Zinc	17	2.5	mg/Kg	1	7/2/2014 2:36:04 PM	13973

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

QC Dumme	ay report an	a bainpie i	ogin eneenin	be let inagged	20 uuuu uuu	preservation inter-
 						<u> </u>

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

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

Qualifiers:

- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- 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 greater than 2. Р
- **Reporting Detection Limit** RL

Page 1 of 6

-

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:Vadose Zone 5 yr metals Cell 29Lab ID:1406C99-002Matrix: SOIL

Analytical Report

Lab Order 1406C99

Date Reported: 7/14/2014

Client Sample ID: Cell #29 #2 Collection Date: 6/24/2014 9:13:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY		• .			Analysi	: MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 5:17:59 PM	13998
EPA METHOD 6010B: SOIL METALS				•	Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:58:12 AM	13973
Barium	330	0.20	mg/Kg	2	7/2/2014 5:24:41 PM	13973
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 2:42:38 PM	13973
Chromium	3.1	0.30	mg/Kg	1	7/2/2014 2:42:38 PM	13973
Copper	[`] 1.9	0.30	mg/Kg	1	7/2/2014 2:42:38 PM	13973
Iron	3000	20	mg/Kg	20	7/2/2014 5:25:48 PM	13973
Lead	ND	25	mg/Kg	1	7/2/2014 2:42:38 PM	13973
Manganese	39	0.099	mg/Kg	1	7/2/2014 2:42:38 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:42:38 PM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:42:38 PM	13973
Zinc	8.4	2.5	mg/Kg	1	7/2/2014 2:42:38 PM	13973

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank					
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s for preparation or analysis exceeded				
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 6				
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	r age 2 01 0				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit					
	S	Spike Recovery outside accepted recovery limits		· ·					

Analytical Report Lab Order 1406C99

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/14/2014

CLIENT: J & L Landfarm

Lab ID:

Vadose Zone 5 yr metals Cell 29 **Project:**

1406C99-003

Client Sample ID: Cell #29 #3

Collection Date: 6/24/2014 9:22:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.032	mg/Kg	1	7/1/2014 5:19:44 PM	13998
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 8:59:24 AM	13973
Barium	340	0.20	mg/Kg	2	7/2/2014 5:26:58 PM	13973
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 2:44:06 PM	13973
Chromium	2.6	0.30	mg/Kg	1	7/2/2014 2:44:06 PM	13973
Copper	1.7	0.30	mg/Kg	1	7/2/2014 2:44:06 PM	13973
Iron	2500	20	mg/Kg	20	7/2/2014 5:28:06 PM	13973
Lead	ND	25	. mg/Kg	1	7/2/2014 2:44:06 PM	13973
Manganese	32	0.10	mg/Kg	1	7/2/2014 2:44:06 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:44:06 PM	13973
Silver	ND	0.25	mg/Kg	`1	7/2/2014 2:44:06 PM	13973
Zinc	6.9	2.5	mg/Kg	1	7/2/2014 2:44:06 PM	13973

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.
	Ε	Value above quantitation range
	I	Analyte detected below quantitation limits

- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- S 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 greater than 2. Р
- Reporting Detection Limit RL

Page 3 of 6

Analytical Report Lab Order 1406C99

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Vadose Zone 5 yr metals Cell 29 Project:

Client Sample ID: Cell #29 #4

Collection Date: 6/24/2014 9:31:00 AM

1406C99-004 Lab ID: · . Matrix: SOIL Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qua	Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY		27			Analys	: MMD
Mercury	ND	0.032	mg/Kg	1.	7/1/2014 5:21:30 PM	13998
EPA METHOD 6010B: SOIL METALS	· ·			-	- Analysi	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:00:39 AM	13973
Barium	120	0.098	mg/Kg	1	7/2/2014 2:45:31 PM	13973
Cadmium	ND	0.098	mg/Kg	⇒ <u>1</u>	7/2/2014 2:45:31 PM	13973
Chromium	6.4	0.29	mg/Kg	. 1	7/2/2014 2:45:31 PM	13973
Copper	4.4	0.29	mg/Kg	1	7/2/2014 2:45:31 PM	13973
Iron	7000	49	mg/Kg	50	7/2/2014 5:29:19 PM	13973
Lead	ND	24	mg/Kg	1	7/2/2014 2:45:31 PM	13973
Manganese	170	0.098	mg/Kg	1	7/2/2014 2:45:31 PM	13973
Selenium	ND	2.4	mg/Kg	1	7/2/2014 2:45:31 PM	13973
Silver	ND	0.24	mg/Kg	1	7/2/2014 2:45:31 PM	13973
Zinc	16	2.4	mg/Kg	1	7/2/2014 2:45:31 PM	13973

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	H	Holding times for preparation or analysis exceeded
(J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 4 of 6
	0	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		
				ч.

Client: J & L Landfarm

Project: Vadose Zone 5 yr metals Cell 29

Sample ID MB-13998	SampType: MBLK	vpe: MBLK TestCode: EPA Method 7471: Mercury						
Client ID: PBS	Batch ID: 13998	RunNo: 19615						
Prep Date: 7/1/2014	Analysis Date: 7/1/2014	SeqNo: 568768	Units: mg/Kg					
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual				
Mercury	ND 0.033							
Sample ID LCS-13998	SampType: LCS	TestCode: EPA Method	7471: Mercury					
Sample ID LCS-13998 Client ID: LCSS	SampType: LCS Batch ID: 13998	TestCode: EPA Method RunNo: 19615	7471: Mercury					
Sample ID LCS-13998 Client ID: LCSS Prep Date: 7/1/2014	SampType: LCS Batch ID: 13998 Analysis Date: 7/1/2014	TestCode: EPA Method RunNo: 19615 SeqNo: 568769	7471: Mercury Units: mg/Kg					
Sample ID LCS-13998 Client ID: LCSS Prep Date: 7/1/2014 Analyte	SampType: LCS Batch ID: 13998 Analysis Date: 7/1/2014 Result PQL SPK value	TestCode: EPA Method RunNo: 19615 SeqNo: 568769 SPK Ref Val %REC LowLimit	7471: Mercury Units: mg/Kg HighLimit %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

- WO#: 1406C99
 - 14-Jul-14

QC SU	JMMAR	Y REP(ORT	ahorat	ory Inc			- 4		WO#:	1406C99
Client: Project:	J & L I Vadose	Landfarm 2 Zone 5 yr n	netals C	cell 29	<u> </u>					· <u>·</u> ··································	14-Jul-14
Sample ID	MB-13973	Samp	Гуре: Мі	 3l.K	Te	stCode: El	A Method	6010B: Soil	Metals		
Client ID:	PBS	Batc	h ID: 13	973		RunNo: 1	9639	· ·			÷
Pren Date:	6/30/2014	Analysis F	Date 7/	2/2014		SeaNo: 5	69718	Units malk	(a		
l top Bato.									•9		A 1
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic			2.5								
Codmium			0.10								
Chromium		ND	0.10							•	
Conner		ND	0.30								
Iron		ND	1.0								
Lead		ND	0.25	i							
Manganese		ND	0.10								•
Selenium		ND	2.5	1			1	`	•	,	
Silver		ND	0.25								
Zinc		ND	2.5								
Sample ID	LCS-13973	Samp1	Гуре: LC	<u></u>	Tes	stCode: El	A Method	6010B: Soil	Metals	· · · ·	
Client ID:	LCSS	Batcl	h ID: 13	973		RunNo: 1	9639				
Prep Date:	6/30/2014	Analysis E	Date: 7/	2/2014		SeqNo: 5	69719	Units: mg/k	(ģ		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		24	2.5	25.00	0	97.9	80	120			
Barium		24	0.10	25.00	0	95.8	80	120			
Cadmium		24	0.10	25.00	0	96.9	80	120			
Chromium		24	0.30	25.00	· 0	96.1	80	120			
Copper		25	0.30	25.00	0	99.8	80	120			
Iron		26	1.0	25.00	0	103	80	120			
Lead		23	0.25	25.00	0	92.2	80	120			
Manganese		24	0.10	25.00	U	95.3	80	120			
Selenium		- 24	2.5	25.00	0	95.1	80	120			
Zinc		5.0 24	2.5	25.000	ų Q	· 99.3	80	120		•	
200		27	2.0	20.00	v	37.0		120			
			-								
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Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Ε 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 S
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 6 of 6

- р Sample pH greater than 2. RL
 - Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY	tiali Environmenial Alb TEL: 505-345-3975 Website: www.ha	Anatysts Lab 4901 Hawi uquerque, NM 5 FAX: 505-34 allenvironmen	rator; ins NE 87105 Sam 5-4107 al.com	Sample Log-In Check List					
Client Name: J & L LANDFARM	Work Order Number	: 1406C99		RcptNo:	1				
Received by/date: CS	6607/14								
Logged By: Michelle Garcia	6/27/2014 8:50:00 AM	·	Minule Ca	nie					
Completed By: Michelle Garcia	6/27/2014 10:48:03 AM	vi ·	Minul Ga	run					
Reviewed By: A OG/301	14		•						
Chain of Custody									
1. Custody seals intact on sample bottles	7	Yes 🗌	No 🗌	Not Present 🗹					
2. Is Chain of Custody complete?		Yes 🗹	No 🗆	Not Present					
3. How was the sample delivered?		<u>FedEx</u>							
<u>Log In</u>									
4. Was an attempt made to cool the sam	ples?	Yes 🗹	No 🗍						
5. Were all samples received at a temper	ature of >0°C to 6.0°C	Yes 🗹	No 🗌	na 🗆					
6. Sample(s) in proper container(s)?	х	Yes 🗹	No 🗌	· .					
7. Sufficient sample volume for indicated	test(s)?	Yes 🗹	No 🗔	ς.	· · ·				
8. Are samples (except VOA and ONG) p	roperly preserved?	Yes 🗹	No 🗌						
9. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗌					
10.VOA viais have zero headspace?		Yes 🗌	No 🗆	No VOA Vials 🗹					
11. Were any sample containers received	broken?	Yes 🗆	No 🗹	th of processed					
12. Does paperwork match bottle labels?		Yes 🗹	No 🗆	bottles checked for pH:	- >12 unloss poted)				
(Note discrepancies on chain of custod	y) . .in of Custody?		No 🗔	Adjusted?	Fiz unless noted)				
14. Is it clear what analyses were requeste	d?	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:	n a harman an a		in the actual of in the second which						

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By	
1	5.5	Good	Yes				

متصف فالمحج سيربط الالتراج السامات الالح

Contractor and the second second

Page 1 of 1

Client: Mailing Phone email o QA/QC	Address	-of-Cu andfa 356 75-67 j[rol	Hotts Hotts 31- 576 9497 6	Record	Turn-Around Time: Standard Rush Project Name: Vacence zone 5 vr metals Cell 29 Project#: Project Manager: Judy RobeTS				(Gas only)	40 / WKO)	H A w awkin 5-345	ALI NA ww.ha 3 NE -3975	LY allen - All Anal	viron buqu Fax ysis (*os:*od	/II men erqu 505 Red	RO tal.co ie, N -345 ues	om M 8: -410	ME 7109 7			Y
Accred	itation AP (Type) Time	Othe Matrix	r Sampl	e Request ID	Sampler: On Ice: Sample Ten Container Type and #	Preservative Type	HEAL NO.	BTEX + MTBE + TMB	BTEX + MTBE + TPH	TPH 8015B (GRO / DI	TPH (Method 418.1)	PAH's (8310 or 8270 \$	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂	3081 Pesticides / 8082	3260B (VOA)	3270 (Semi-VOA)	MeTels A			Air Rubbles (Y nr N)
	0901 0913 0922 0931	Sail		# 29 #1	1 4 - 9 bss		-001 -002 -003 -004											X X X			
Date: 1/26 Date:	Time: 1130 Time:	Relinquishe	ed by:		Received by: Celuno Received by:	- Sum	Date Time <i>Dia</i> te Time Date Time	Rem A	narks Su	s: 1Te 3a (%	2 - (u	Fe	PŁ	> N		Hg	Se	Ag i	2n 1	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited taboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 11, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr Metals Cell #10

OrderNo.: 1406D00

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406D00 Date Reported: 7/11/2014

CLIENT: J & L Landfarm Vadose Zone 5 yr Metals Cell #10 **Project:**

1406D00-001

Lab ID:

Client Sample ID: Cell #10 #1 Collection Date: 6/26/2014 11:10:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 7471: MERCURY					Analysi	: TES	
Mercury	ND	0.033	mg/Kg	1	7/3/2014 10:58:35 AM	14019	
EPA METHOD 6010B: SOIL METALS					Analyst	ELS	
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:01:54 AM	13973	
Barium	110	0.096	mg/Kg	1	7/2/2014 2:46:57 PM	13973	
Cadmium	ND	0.096	mg/Kg	1	7/2/2014 2:46:57 PM	13973	
Chromium	5.7	0.29	mg/Kg	1	7/2/2014 2:46:57 PM	13973	
Copper	1.7	0.29	mg/Kg	1	7/2/2014 2:46:57 PM	13973	
Iron	5800	48	mg/Kg	50	7/2/2014 5:30:33 PM	13973	
Lead	ND	0.24	mg/Kg	1	7/2/2014 2:46:57 PM	13973	
Manganese	46	0.096	mg/Kg	1	7/2/2014 2:46:57 PM	13973	
Selenium	ND	2.4	mg/Kg	1	7/2/2014 2:46:57 PM	13973	
Silver	ND	0.24	mg/Kg	1	7/2/2014 2:46:57 PM	13973	
Zinc	13	2.4	mg/Kg	1	7/2/2014 2:46:57 PM	13973	

Matrix: SOIL

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

Qualifiers:	
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- 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 S
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**
- Page 1 of 6

Hall Environmental Analys	is Laborat	ory, Inc.	·		Analytical Report Lab Order 1406D00 Date Reported: 7/11/20)14
CLIENT: J & L Landfarm Project: Vadose Zone 5 yr Metals Cel Lab ID: 1406D00-002	#10 Matrix: \$	SOIL	Client Sample Collection I Received I	e ID: Ce Date: 6/2 Date: 6/2	ll #10 #2 6/2014 11:19:00 AM 7/2014 8:50:00 AM	<u> </u>
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 11:00:25 AM	14019
EPA METHOD 6010B: SOIL METALS				× .	Analys	t: ELS
Arsenic	ŃD	12	mg/Kg	5	7/9/2014 9:03:09 AM	13973
Barium	79	0.099	mg/Kg	1	7/2/2014 2:48:23 PM	13973
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 2:48:23 PM	13973
Chromium	3.7	0.30	mg/Kg	1	7/2/2014 2:48:23 PM	13973
Copper	1.1	0.30	mg/Kg	1	7/2/2014 2:48:23 PM	13973
Iron	3600	20	mg/Kg	20	7/2/2014 5:31:42 PM	13973
Lead	ND	0.25	mg/Kg	1	7/2/2014 2:48:23 PM	13973
Manganese	38	0.099	mg/Kg	1	7/2/2014 2:48:23 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:48:23 PM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:48:23 PM	13973

2.5

mg/Kg

13973

7/2/2014 2:48:23 PM

1

8.0

Zinc

E Value abo J Analyte de	e quantitation range	Н	I He	lolding times for preparation or analysis	exceeded
J Analyte de	tected below quantitation limits	1.00	· .		
	teres error quantum	ND	D No	ot Detected at the Reporting Limit	Page 2 of 6
O RSD is gre	ater than RSDlimit	P	' Sa	ample pH greater than 2.	1 age 2 01 0
R RPD outsi	le accepted recovery limits	RL	L Re	eporting Detection Limit	
S Spike Reco	overy outside accepted recovery limits			· ·	

Analytical Report Lab Order 1406D00

Hall Environmental Analysis Laboratory, Inc.

Vadose Zone 5 yr Metals Cell #10

CLIENT: J & L Landfarm

Project: 1 15

Date Reported: 7/11/2014 Client Sample ID: Cell #10 #3 Collection Date: 6/26/2014 11:27:00 AM

Bassized Date: 6/27/2014 8.50.00 AM

Lab ID: 1406D00-003	Matrix: S	SOIL	Received	Received Date: 6/27/2014 8:50:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 7471: MERCURY					Analys	t: TES				
Mercury	ND	0.031	mg/Kg	1	7/3/2014 11:02:16 AM	14019				
EPA METHOD 6010B: SOIL METALS					Analys	t ELS				
Arsenic	ND	13	mg/Kg	5	7/9/2014 9:04:22 AM	13973				
Barium	62	0.10	mg/Kg	1	7/2/2014 2:49:47 PM	13973				
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 2:49:47 PM	13973				
Chromium	3.9	0.30	mg/Kg	1	7/2/2014 2:49:47 PM	13973				
Copper	1.1	0.30	mg/Kg	1	7/2/2014 2:49:47 PM	13973				
Iron	3800	20	mg/Kg	20	7/2/2014 5:32:52 PM	13973				
Lead	0.41	0.25	mg/Kg	1	7/2/2014 2:49:47 PM	13973				
Manganese	39	0.10	mg/Kg	1	7/2/2014 2:49:47 PM	13973				
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:49:47 PM	13973				
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:49:47 PM	13973				
Zinc	8.2	2.5	mg/Kg	1	7/2/2014 2:49:47 PM	13973				

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

Qualifiers:

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- Value exceeds Maximum Contaminant Level. Е Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- 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 greater than 2. р
- RL
- Page 3 of 6
- Reporting Detection Limit

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406D00

Date Reported: 7/11/2014

CLIENT: J & L Landfarm

Project:Vadose Zone 5 yr Metals Cell #10Lab ID:1406D00-004Matrix: SOIL

Client Sample ID: Cell #10 #4 Collection Date: 6/26/2014 11:35:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result RL Qual Units			DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY			· · · · · · · · · · · · · · · · · · ·		Analysi	t: TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 11:04:08 AM	14019
EPA METHOD 6010B: SOIL METALS			·. · · ·		Analysi	t: ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:09:23 AM	13973
Barium	83	0.099	mg/Kg	1	7/2/2014 2:51:10 PM	13973
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 2:51:10 PM	13973
Chromium	6.1	0.30	mg/Kg	1	7/2/2014 2:51:10 PM	13973
Copper	1.9	0.30	mg/Kg	1	7/2/2014 2:51:10 PM	13973
Iron	6300	50	mg/Kg	50	7/2/2014 5:34:05 PM	13973
Lead	ND	0.25	mg/Kg	1	7/2/2014 2:51:10 PM	13973
Manganese	51	0.099	mg/Kg	1	7/2/2014 2:51:10 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:51:10 PM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:51:10 PM	13973
Zinc	14	2.5	mg/Kg	1	7/2/2014 2:51:10 PM	13973

Qualifiers:	٠	Value exceeds Maximum Contaminant Level.	· • • •	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range		Н	Holding times for preparation or analysis	exceeded
· •	J	Analyte detected below quantitation limits	•	ND	Not Detected at the Reporting Limit	Page 4 of 6
	0	RSD is greater than RSDlimit		P	Sample pH greater than 2.	1 age + 01 0
	R	RPD outside accepted recovery limits	· · ·	RL	Reporting Detection Limit	7
	S	Spike Recovery outside accepted recovery limits				

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D00

11**-Jul-**14

Client: J Project: V	& L Landfarm adose Zone 5 yr Met	als Cell #10			<u> </u>			
Sample ID MB-1401	9 SampTyp	e: MBLK	TestCode:	EPA Method	7471: Mercu	у		
Client ID: PBS	Batch II): 14019	RunNo:	19667				
Prep Date: 7/2/2014	Analysis Date	e: 7/3/2014	SeqNo:	570947	Units: mg/K	g		
Analyte	Result	PQL SPK value	SPK Ref Val %REG	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND (0.033						
Sample ID LCS-140	19 SampTyp	e: LCS	TestCode:	EPA Method	7471: Mercu	у		
Client ID: LCSS	Batch II): 14019	RunNo:	19667				
Prep Date: 7/2/2014	Analysis Date	e: 7/3/2014	SeqNo:	570948	Units: mg/K	g		
Analyte	Result	PQL SPK value	SPK Ref Val %REG	LowLimit	HighLimit	%RPD_	RPDLimit	Qual
Mercury	0.17 (0.033 0.1667	0 99.	4 80	120	-		

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 S
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- RL **Reporting Detection Limit**

Page 5 of 6

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D00

11-Jul-14

Client: J&LLa Project: Vadose	undfarm Zone 5 yr N	letals (1						
						<u> </u>				
Sample ID MB-13973	SampT	ype: ME	BLK	Tes	tCode: EP	A Method	6010B: Soil	Metals		
Client ID: PBS	Batch	n ID: 13	973	F	RunNo: 19	639				
Prep Date: 6/30/2014	Analysis D	ate: 7/	2/2014	5	SeqNo: 56	9718	Units: mg/M	ģ		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10						•		
Cadmium	ND	0.10				1				
Chromium	ND	0.30								
Copper	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10								
Selenium	ND	2.5	•				4 . j. 4			
Silver	ND	0.25								
Zinc	ND	2.5								
Sample ID LCS-13973	SampT	ype: LC	s	Tes	tCode: EP	A Method	6010B: Soil	Vietals		
Client ID: LCSS	Batch	n ID: 13	973	F	RunNo: 19	639				
Prep Date: 6/30/2014	Analysis D	ate: 7/	2/2014	S	BeqNo: 56	9719	Units: mg/k	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	2.5	25.00	0	97.9	80	120			
Barium	24	0.10	25.00	0	95.8	80	120			
Cadmium	24	0.10	25.00	0	96.9	80	120			
Chromium	24	0.30	25.00	0	96.1	80	120	,		
Copper	25	0.30	25.00	0	99.8	80	120			
Iron	26 ·	1.0	25.00	0	103	80	120			
Lead	23	0.25	25.00	0	92.2	80	120			
Manganese	24	0.10	25.00	0	95.3	80	120		•	
Selenium	24	2.5	25.00	0	95.1	80	120	*		
Silver	5.0	0.25	5.000	0	99.3	80	120			
Zinc	24	2.5	25.00	0	97.8	80	120			
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Vulue encode Manimum	"anton ! *	aval		D Anni (dataat 11	4	- ม Mad ี เคร	_1-		
E Value above quantitation r	Jontaminant L	ævei.		в Analyte Н Holding	times for p	reparation c	r analysis exce	nk eded		

- Ε Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- RL Reporting Detection Limit

Page 6 of 6

Client Name: J & L LANDFARM Work Order Number: 1405000 RcptNo: 1 Accelered by/date: £ , S	• • •		-	Hall Environmenta Al TEL: 505-345-397 Website: www.l	al Analysis Labora 4901 Hawkins ibuquerque, NM 87 75 FAX: 505-345-4 hallenvironmental.	nory NE 109 San 107 com	nple Log-In C	heck List
acceived by/dets: £ , ∑	Clie	ent Name:	J & L LANDFARM	Work Order Numbe	er: 1406D00		RcptNo:	1
coged B): Ashley Gallegos 62772014 8:50:00 AM Completed B): Ashley Gallegos 62772014 10:52:17 AM Serviceved B): AT G(G) 30/14 And of Custody 1. Outody seals intact on sample bottles? Yes No No 2. Is Chain of Custody complete? Yes No No Not Present 3. How was the sample delivered? Climit Climit No No No 4. Was an attempt made to cool the samples? Yes Yes No No NA 5. Were at samples received at a temperature of >0° C to 5.0°C Yes No No NA 6. Sample(s) in proper container(s)? Yes No No NA 7. Sufficient samples volume for indicated test(s)? Yes No No No 8. Are samples (axcept VOA and ONG) properly preserved? Yes No No If a for presoned bottles? 10. VOA viais have zero headspace? Yes No No If a for presoned bottles index? 12. Does papenvork match bottle labels? Yes No If a for presoned bottles index? Yes 14. Is to der what analyses were requeete	Rec	eived by/dat	ie: <u>L.S</u>		· · · · · · · · · · · · · · · · · · ·			
completed By: Art G(B) ≤ 0/140 Sharlewed By: Art G(B) ≤ 0/141 Sharlewed By: No I sample bottles? Yes II No I Not Present ✓ 2: Is Chain of Custody complete? Yes II No I Not Present : No I Present : 3: How was the sample delivered? Client Log In 4: Was an attempt made to cool the samples? Yes II No I NA I 5: Were at samples received at a temperature of >0' C to 6.0'C Yes IV No I I NA I 6: Sample(s) in proper container(s)? Yes IV No I I 7: Sufficient sample volume for indicated test(s)? Yes IV No I I 8: Are samples (except VOA and ONG) property preserved? Yes IV No I I 9: Was preservative added to bottle? Yes IV No I I Ne VOA Vials IV 10: VOA vials have zero headspace? Yes IV No I I Ne VOA Vials IV 11: Vere any sample containers received? Yes IV No I I Ne VOA Vials IV 12: Does papenvork match bottle labels? Yes IV No I I Ne VOA Vials IV 13: Are mathics conclevit dentifies o	Log	ged By:	Ashley Gallegos	6/27/2014 8:50:00 Al	м	AZ		
Reviewed By: A ← G (L) 30/1/4 Value Analistic of sample bottles? Yes No No Not Present ✓ 1. Custody seals intact on sample bottles? Yes No No Not Present 2. Is Chain of Custody complet? Yes No No No No No No No Present 3. How was the sample delivered? Clinit Clinit Clinit No	Cor	npleted By:	Ashley Gallegos	6/27/2014 10:52:17 /	M	A		:
Bits Of Custody No Not Present ✓ 1. Custody seals initiation sample bottles? Yes No Not Present ✓ 2. Is Chain of Custody complete? Yes No No Not Present ✓ 3. How was the sample delivered? Client No No <td>Rev</td> <td>iewed By:</td> <td>AT 06/30</td> <td>114</td> <td></td> <td>U</td> <td></td> <td></td>	Rev	iewed By:	AT 06/30	114		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? Client No No Not Present ✓ 4. Was an attempt made to cool the samples? Yes No No No No 5. Were all samples received at a temperature of >0° C to 5.0°C Yes Mo NA NA 8. Sample(s) in proper container(s)? Yes Yes No NA NA 8. Sample(s) in proper container(s)? Yes Yes No NA NA 9. Was preservative added to bottles? Yes No No NA NA 9. Was preservative added to bottles? Yes No No NA NA 10. VOA visis have zero headspace? Yes No No With a for preserved bottles for preserved for the served for preserved for the served bottles for preserved for the served bottles for preserved for the served bottles for preserved for the served for preserved for the served for preserved for the served for the s	the	nin of Cus	tody					
2. Is Chain of Clustody complete? Yes [v] No No Not Present : 3. How was the sample delivered? Oliant 4. Was an attempt made to cool the samples? Yes [v] No NA 5. Were all samples received at a temperature of >0° C to 6.0°C Yes [v] No INA 6. Sample(s) in proper container(s)? Yes [v] No INA 7. Sufficient sample volume for indicated test(s)? Yes [v] No I 8. Are samples (except VOA and ONG) property preserved? Yes [v] No I 9. Was preservative added to bottles? Yes [v] No I I 10. VOA viais have zero headspace? Yes [v] No I Ma 11. Were any sample containers received broken? Yes [v] No I G preserved bottles for preserved bottles decrepancies on chain of custody? Yes [v] No I G//// co r>12 unless noted] 13. Are matrices correctly identified on Chain of Custody? Yes [v] No Adjusted? Yes [v] No I G/// co r>12 unless noted] 13. Are matrices correctly identified on Chain of custody?<	1.	Custody sea	als intact on sample bottles	?	Yes []	No	Not Present 💉	
3. How was the sample delivered? Client Log In 4. Was an attempt made to cool the samples? Yes No NA 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 NA 7. Sufficient sample volume for indicated test(s)? Yes No No 8. Are samples (except VOA and ONG) properly preserved? Yes No I 9. Was preservative added to bottles? Yes No I 10. VOA viais have zero headspace? Yes No No I 11. Were any sample containers received broken? Yes No I of or preserved bottles 12. Does paperwork match bottle labels? Yes No I of or preserved bottles checked 12. Hore any sample containers received broken? Yes No Adjusted? 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No I 15. Were all hotting time	2.	Is Chain of (Custody complete?		Yes 🔽	No	Not Present :	
Log In 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 8. Sample(s) in proper container(s)? Yes No NA 7. Sufficient sample volume for indicated test(s)? Yes No NA 8. Are samples (except VOA and ONG) properly preserved? Yes No I 9. Was preservative added to bottles? Yes No NA 10. VOA vials have zero headspace? Yes No No No 11. Were any sample containers received broken? Yes No Ma dottles checked 12. Does paperwork match bottle labels? Yes No for preserved bottles checked? Yes No Adjusted? 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? Adjusted? 14. Is it clear what analyses were requested? Yes No Adjusted? No Secoler Information. Special Handling (If applicable) 10. No No No No Ma 16. Was client notified of all discrepancies with this order?	3.	How was the	e sample delivered?		<u>Client</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 NA 7. Sufficient sample volume for indicated test(s)? Yes No No NA 8. Are samples (except VOA and ONG) properly preserved? Yes No No I 9. Was preservative added to bottles? Yes No No NA 10. VOA viats have zero headspace? Yes No No No No I 11. Were any sample containers received broken? Yes No No I I/// c2 or >12 unless noted) 12. Does paperwork match bottle labels? Yes Yes No Adjuated? 14. Is it clear what analyses were requested? Yes No Adjuated? 14. Is it clear what analyses were requested? Yes No Adjuated? 15. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) See No No Adjuated? 16. Was client notified	Lo	g In						
5. Were all samples received at a temperature of >0° C to 5.0°C Yes No NA 8. Sample(s) in proper container(s)? Yes Yes No 7. Sufficient sample volume for indicated test(s)? Yes No No 8. Are samples (except VOA and ONG) property preserved? Yes No No 9. Was preservative added to bottles? Yes No NA 10. VOA viais have zero headspace? Yes No No NA 11. Were any sample containers received broken? Yes No No No Yes 12. Does papervork match bottle labels? Yes No No If of preserved bottles checked for ptr: (Note discrepancies on chain of custody) Yes No Adjusted? No Adjusted? 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? No Adjusted? 14. Is it clear what analyses were requested? Yes No No Checked by: No Checked by: (If no, notify customer for authorization.) Yes No No NA Pareson Notified: By Whom: Regarding: <td>4.</td> <td>Was an atte</td> <td>empt made to cool the sam</td> <td>ples?</td> <td>Yes 🔽</td> <td>No</td> <td>NA</td> <td></td>	4.	Was an atte	empt made to cool the sam	ples?	Yes 🔽	No	NA	
5. Were all samples received at a tamperature of >0° C to 5.0° C Yes Ves No NA 8. Sample(s) in proper container(s)? Yes Yes No 7. Sufficient sample volume for indicated test(s)? Yes No I 8. Are samples (except VOA and ONG) properly preserved? Yes No I 9. Was preservative added to bottles? Yes No I 9. Was preservative added to bottles? Yes No I 10. VOA vials have zero headspace? Yes No I 11. Were any sample containers received broken? Yes No I 12. Does paperwork match bottle labels? Yes No I 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No I 15. Were all holding times able to be met? Yes No I 16. Was client noitified of all discrepancies with this order? Yes No No 17. Additional remarks: Decler Information Via: effail Phone Fax< In Person	;							
8. 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 9. Was preservative added to bottles? Yes No 10. VOA visis have zero headspace? Yes No 11. Were any sample containers received broken? Yes No 12. Does paperwork match bottle labels? Yes No 13. Are matrices correctly identified on Chain of Custody? Yes No 14. Is it clear what analyses were requested? Yes No 15. Wore all holding times able to be met? Yes No 16. Was client notified of all discrepancies with this order? Yes No 16. Was client notified? Via: Yes No 17. Additional remarks: By Whom: Via: Yes 18. Cooler Information Cooler Information Seal Date 19. Via: Yes Godd No	5.	Were all sar	mples received at a temper	ature of >0° C to 6.0°C	Yes 🖌	No ! Ì	NA	
7. Sufficient sample volume for indicated test(s)? Yes No 8. Are samples (except VOA and ONG) property preserved? Yes No I 9. Was preservative added to bottles? Yes No NA 10. VOA vials have zero headspace? Yes No NA 11. Were any sample containers received broken? Yes No No 12. Does paperwork match bottle labels? Yes No Mo 12. Does paperwork match bottle labels? Yes No Mo 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Adjusted? 15. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) No Checked by: No Person Notified: Date: Date: By Whom: Via: I eMail Phone Fax In Person 16. Was client notified of all discrepancies with this order? Yes No NA M <tr< td=""><td>6.</td><td>Sample(s) i</td><td>n proper container(s)?</td><td></td><td>Yes 🖌</td><td>No</td><td></td><td></td></tr<>	6.	Sample(s) i	n proper container(s)?		Yes 🖌	No		
7. Sufficient sample volume for indicated test(s)? Yes No 8. Are samples (except VOA and ONG) property preserved? Yes No I 9. Was preservative added to bottles? Yes No No NA 10. VOA vials have zero headspace? Yes No No NA 11. Were any sample containers received broken? Yes No Mo # of preserved bottles checked 12. Does paperwork match bottle labels? Yes No Ior PH: ((<2 or >12 unless noted) 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? (<2 or >12 unless noted) 14. Is it clear what analyses were requested? Yes No Adjusted? (<2 or >12 unless noted) 15. Were all holding times able to be met? Yes No Adjusted? (16. Was client notified of all discrepancies with this order? Yes No No NA Person Notified: Date: Date: In Person NA In Person 17. Additional remarks: B. Cooler Information Seal Intect Seal Date Signed By 17. Additional remarks: S. Good								
B. Are samples (except VOA and ONS) propeny preserved? Yes No No NA 9. Was preservative added to bottles? Yes No NA NA 10. VOA vials have zero headspace? Yes No No No NA 11. Were any sample containers received broken? Yes No No Ma # of preserved bottles for pH: 12. Does paperwork match bottle labels? Yes Yes No Ma # of preserved bottles checked 12. Does paperwork match bottle labels? Yes Yes No Ma # of preserved bottles checked 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Adjusted? 15. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) No Checked by: 16. Was client notified: Date: Date: No By Whom: Via: I eMail Phone Fax Regarding: Cooler Information Seal Intext Seal Date 17. Additional remarks: Scooler Information Seal Intext Seal Date 16. Cooler No Terms °C Condition: Seal Intext 17. Additional remarks: Scool Not Present Seal Date 19. S.5 Good Not Present Seal Date <td>7.</td> <td>Sufficient sa</td> <td>ample volume for indicated</td> <td>test(s)?</td> <td>Yes M</td> <td>No</td> <td></td> <td></td>	7.	Sufficient sa	ample volume for indicated	test(s)?	Yes M	No		
9. vvas preservative added to bottles? Yes No No NA 10. VOA vials have zero headspace? Yes No No VA 11. Were any sample containers received broken? Yes No Mo Mo VA 12. Does papenwork match bottle labels? Yes No Mo for pH: # of preserved bottles checked 12. Does papenwork match bottle labels? Yes Yes No for pH: (<2 or >12 unless noted) 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? (<2 or >12 unless noted) 14. Is it clear what analyses were requested? Yes No Adjusted?	8. C	Are samples	s (except VOA and ONG) p	roperly preserved?	Yes 🕅	NO L I	 	
10. VOA vials have zero headspace? Yes No No VOA Vials * 11. Were any sample containers received broken? Yes No # of preserved bottles checked 12. Does paperwork match bottle labels? Yes No # of preserved bottles checked 12. Does paperwork match bottle labels? Yes No # of preserved bottles checked 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Checked by: (If no, notify customer for authorization.) Yes No Checked by: 16. Was client notified of all discrepancies with this order? Yes No NA Person Notified: Date: Date: In Person Regarding: Client Instructions: In Person No In Person 17. Additional remarks: 16. Condition Seal Intext Seal Date Signed By 11 5.5 Good No Present In Person Page 1 of 1	Я.	vvas presen	varive added to bottles?		Yes (_i	NO 🕅:	NA : -	
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Special Handling (If applicable) 16. Was client notified of all discrepancies with this order? Yes No NA ✓ Person Notified: Date:	!	ut no, notify	customer for authorization	.)				
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Client:	Chain-of-Custody Record ent: AL heutlan- ailing Address:				d Turn-Around Time: Standard I Rush Project Name:				HALL ENVIRONMENTAL ANALYSIS LABORATORY								(
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Mailing	Address	s:			5yr	metals	Cell # 10	4901 Hawkins NE - Albuquerque, NM 87109							•							
90	Box	356 H	otto NI	n 8824/	Project #		· •	Tel. 505-345-3975 Fax 505-345-4107														
Phone	#: 5	15-6	31-576	5									Anal	ysis	Req	ueșt	t				_	ļ
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 14, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr metals Cell 34

OrderNo.: 1406D01

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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 1406D01

Hall Environmental Analysis Laboratory, Inc.

Vadose Zone 5 yr metals Cell 34

CLIENT: J & L Landfarm

Project:

Date Reported: 7/14/2014 Client Sample ID: Cell #34 #1 Collection Date: 6/24/2014 9:50:00 AM

Received Date: 6/27/2014 8:50:00 AM

Lab ID: 1406D01-001	Matrix: S	SOIL	Received	Date: 6/2	27/2014 8:50:00 AM	
Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	: MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 5:23:16 PM	13998
EPA METHOD 6010B: SOIL METALS					Analyst	: ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:10:39 AM	13973
Barium	440	0.20	mg/Kg	2	7/2/2014 5:40:09 PM	13973
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 2:52:33 PM	13973
Chromium	2.5	0.30	mg/Kg	1	7/2/2014 2:52:33 PM	13973
Copper	0.62	0.30	mg/Kg	1	7/2/2014 2:52:33 PM	13973
Iron	2400	20	mg/Kg	20	7/2/2014 5:41:17 PM	13973
Lead	ND	25	mg/Kg	1	7/2/2014 2:52:33 PM	13973
Manganese	28	0.099	mg/Kg	1	7/2/2014 2:52:33 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:52:33 PM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:52:33 PM	13973
Zinc	5.7	2.5	mg/Kg	1	7/2/2014 2:52:33 PM	13973

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

Oualifiers:	
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*

- Value exceeds Maximum Contaminant Level. Ε Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- RL
- Page 1 of 6
- Reporting Detection Limit

Hall Environmental Analys	is Laborat	ory, Inc.		1	Analytical Report Lab Order 1406D01 Date Reported: 7/14/20	14				
CLIENT: J & L Landfarm Project: Vadose Zone 5 yr metals Cell Lab ID: 1406D01-002	34 Matrix: S	SOIL	Client Sample ID: Cell #34 #2 Collection Date: 6/24/2014 9:58:00 AM Received Date: 6/27/2014 8:50:00 AM							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 7471: MERCURY					Analys	t: MMD				
Mercury	ŃD	0.032	mg/Kg	1	7/1/2014 5:28:38 PM	13998				
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS				
Arsenic	ND	13	mg/Kg	5	7/9/2014 9:11:53 AM	13973				
Barium	280	0.20	mg/Kg	2	7/2/2014 5:42:28 PM	13973				
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 2:53:59 PM	13973				
Chromium	· 2.7	0.30	mg/Kg	1	7/2/2014 2:53:59 PM	13973				
Copper	1.4	0.30	mg/Kg	1	7/2/2014 2:53:59 PM	13973				
Iron	2500	20	mg/Kg	20	7/2/2014 5:43:35 PM	13973				
Lead	ND	25	mg/Kg	1	7/2/2014 2:53:59 PM	13973				
Manganese	25	0.10	mg/Kg	1	7/2/2014 2:53:59 PM	13973				
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:53:59 PM	13973				
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:53:59 PM	13973				
Zinc	6.6	25	ma/Ka	1	7/2/2014 2:53:59 PM	13973				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Metho	d Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Dage 2 of 6
	0	RSD is greater than RSD limit	P	Sample pH greater than 2.	Fage 2 010
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			
	3	Spike Recovery buiside accepted recovery minus			

Analytical Report Lab Order 1406D01 Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: Cell #34 #3

Vadose Zone 5 yr metals Cell 34 **Project:**

1406D01-003

CLIENT: J & L Landfarm

Lab ID:

Collection Date: 6/24/2014 10:07:00 AM

Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	: MMD
Mercury	ND	0.031	mg/Kg	1	7/1/2014 5:34:08 PM	13998
EPA METHOD 6010B: SOIL METALS		·			Analys	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:13:06 AM	13973
Barium	320	0.20	mg/Kg	2	7/2/2014 5:44:49 PM	13973
Cadmium	ND	0.098	mg/Kg	1	7/2/2014 2:55:25 PM	13973
Chromium	3.4	0.29	mg/Kg	1	7/2/2014 2:55:25 PM	13973
Copper	1.1	0.29	mg/Kg	1	7/2/2014 2:55:25 PM	13973
Iron	3200	20	mg/Kg	20	7/2/2014 5:45:56 PM	13973
Lead .	ND	24	mg/Kg	1	7/2/2014 2:55:25 PM	13973
Manganese	36	0.098	mg/Kg	1	7/2/2014 2:55:25 PM	13973
Selenium	ND	2.4	mg/Kg	1	7/2/2014 2:55:25 PM	13973
Silver	ND	0.24	mg/Kg	1	7/2/2014 2:55:25 PM	13973
Zinc	7.6	2.4	mg/Kg	1	7/2/2014 2:55:25 PM	13973

Matrix: SOIL

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

Qualifiers:

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- 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 S
- Analyte detected in the associated Method Blank В
- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**
- Page 3 of 6

Analytical Report Lab Order 1406D01

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone 5 yr metals Cell 34

Lab ID: 1406D01-004 Matrix: SOIL

Client Sample ID: Cell #34 #4 Collection Date: 6/24/2014 10:16:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY	•				Analys	t: MMD
Mercury	ND	0.033	mg/Kg	1	7/1/2014 5:35:57 PM	13998
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:14:21 AM	13973
Barium	290	0.20	mg/Kg	2	7/2/2014 5:47:10 PM	13973
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 3:01:57 PM	13973
Chromium	2.7	0.30	mg/Kg	1	7/2/2014 3:01:57 PM	13973
Copper	1.5	0.30	mg/Kg	· 1	7/2/2014 3:01:57 PM	13973
Iron	2500	20	mg/Kg	20	7/2/2014 5:48:16 PM	13973
Lead	ND	25	mg/Kg	1	7/2/2014 3:01:57 PM	13973
Manganese	25	0.10	mg/Kg	. 1	7/2/2014 3:01:57 PM	13973
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:01:57 PM	13973
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:01:57 PM	13973
Zinc	7.0	2.5	mg/Kg	. 1	7/2/2014 3:01:57 PM	13973

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	·	В	Analyte detected in the associated Metho	Blank
	Е	Value above quantitation range		Ĥ	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	· • .	ND	Not Detected at the Reporting Limit	Page 4 of 6
	0	RSD is greater than RSDlimit		Р	Sample pH greater than 2.	1 age 4 01 0
	R	RPD outside accepted recovery limits	•	RL	Reporting Detection Limit	6
	S	Spike Recovery outside accepted recovery limits				

Client:	J & L Lar	ndfarm									
Project:	Vadose Z	one 5 yr n	netals C	Cell 34					<u> </u>		
Sample ID	MB-13998	Samp1	ype: MI	BLK	Tes	tCode: E	PA Method	7471: Mercu	ry		÷
Client ID:	PBS	Batc	h ID: 13	998	F	RunNo: 1	9615				
Prep Date:	7/1/2014	Analysis E	Date: 7/	1/2014	5	SeqNo: 5	68768	Units: mg/H	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.033		· · · · · · · · · · · · · · · · · · ·						
Sample ID	LCS-13998	Samp1	ype: LC	s	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID:	LCSS	Batc	h ID: 13	998	F	RunNo: 1	9615				
Prep Date:	7/1/2014	Analysis D	Date: 7/	/1/2014	5	SeqNo: 5	68769	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.16	0.033	0.1667	0	95.7	80	120			
Sample ID	1406D01-001AMS	Samp1	ype: MS	<u> </u>	Tes	tCode: E	PA Method	7471: Mercu			
Client ID:	Cell #34 #1	Batc	h ID: 13	998	F	RunNo: 1	9615				
Prep Date:	7/1/2014	Analysis D	Date: 7/	/1/2014	S	SeqNo: 5	68785	Units: mg/H	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.13	0.031	0.1587	0	79.7	75	125			
Sample ID	1406D01-001AMS	D Samp1	ype: MS	SD	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID:	Cell #34 #1	Batcl	h ID: 13	998	F	RunNo: 1	9615				
Prep Date:	7/1/2014	Analysis D	Date: 7/	/1/2014	S	eqNo: 5	68786	Units: mg/M	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.13	0.033	0.1680	0	79.7	75	125	5.61	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Ε 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 S
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- **Reporting Detection Limit** RL

1406D01 14-Jul-14

WO#:

- Page 5 of 6

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D01

14-Jul-14

J & L Landfarm

Client:

Project: Vadose Zone 5 yr metals Cell 34

Sample ID MB-13973	SampT	ype: ME	BLK	Tes	tCode: EP	A Method	6010B: Soil	Metals		
Client ID: PBS	Batcl	n ID: 13	973	F	lunNo: 19	639				
Prep Date: 6/30/2014	Analysis E	ate: 7/	2/2014	Ś	eqNo: 56	9718	Units: mg/H	۲g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5						······		
Barium	ND	0.10						•		
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10		•						
Selenium	ND	2.5								
Silver	ND	0.25								
Zinc	ND	2.5							• •	
						1				
Sample ID LCS-13973	SampT	ype: LC	S	Tes	Code: EP	PA Method	6010B: Soil	Metals		
Sample ID LCS-13973 Client ID: LCSS	SampT Batch	ype: LC 1D: 13	:S 973	. Tesi	lCode: EP lunNo: 19	PA Method 639	6010B: Soil	Metals		
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014	SampT Batch Analysis D	ype: LC 1 ID: 13 ate: 7/	:S 973 2/2014	Tesi R S	lCode: EP RunNo: 19 SeqNo: 56	PA Method 	6010B: Soil Units: mg/k	Metals (g		
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte	SampT Batch Analysis D Result	ype: LC n ID: 13 Date: 7/ PQL	S 973 2/2014 SPK value	Tesi R SPK Ref Val	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u>	A Method 639 59719 LowLimit	6010B: Soil Units: mg/k HighLimit	Metals (g %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic	SampT Batch Analysis D Result 24	ype: LC n ID: 13 Date: 7/ PQL 2.5	S 973 2/2014 SPK value 25.00	Tesi R SPK Ref Val 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9	24 Method 1639 19719 LowLimit 80	6010B: Soil Units: mg/k HighLimit 120	Metals (g _%RPD_	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium	SampT Batch Analysis D Result 24 24	ype: LC n ID: 13 Date: 7/ PQL 2.5 0.10	S 973 2/2014 SPK value 25.00 25.00	Tesi R SPK Ref Val 0 0	Code: EP RunNo: 19 BeqNo: 56 <u>%REC</u> 97.9 95.8	A Method 639 59719 LowLimit 80 80	6010B: Soil Units: mg/K HighLimit 120 120	Metals (g %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium	SampT Batch Analysis D Result 24 24 24 24	ype: LC n ID: 13 Date: 7/ PQL 2.5 0.10 0.10	S 973 2/2014 SPK value 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9	A Method 639 99719 LowLimit 80 80 80	GO10B: Soil Units: mg/k HighLimit 120 120 120	Metals Kg %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium	SampT Batch Analysis D Result 24 24 24 24 24	ype: LC n ID: 13 Date: 7/ PQL 2.5 0.10 0.10 0.30	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9 96.1	A Method 639 59719 LowLimit 80 80 80 80	6010B: Soil Units: mg/k HighLimit 120 120 120 120	Metals (g 	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper	SampT Batch Analysis D Result 24 24 24 24 24 24 25	ype: LC n ID: 13 Date: 7/ PQL 2.5 0.10 0.10 0.30 0.30	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00	Tesi F SPK Ref Val 0 0 0 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9 96.1 99.8	A Method 639 9719 LowLimit 80 80 80 80 80 80	6010B: Soil Units: mg/k HighLimit 120 120 120 120 120 120	Metals (g %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron	SampT Batch Analysis D Result 24 24 24 24 24 24 25 26	ype: LC n ID: 13 pate: 7/ PQL 2.5 0.10 0.30 0.30 0.30 1.0	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00	Tesi F SPK Ref Val 0 0 0 0 0 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9 96.1 99.8 103	A Method 639 9719 LowLimit 80 80 80 80 80 80 80 80 80	6010B: Soil Units: mg/k HighLimit 120 120 120 120 120 120 120	Metals Kg 	<u>RP</u> DLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead	SampT Batch Analysis D Result 24 24 24 24 24 25 26 25 26 23	ype: LC n ID: 13 pate: 7/ PQL 2.5 0.10 0.30 0.30 1.0 0.25	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi F SPK Ref Val 0 0 0 0 0 0 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9 96.1 99.8 103 92.2	A Method 639 9719 LowLimit 80 80 80 80 80 80 80 80 80 80	6010B: Soil Units: mg/K HighLimit 120 120 120 120 120 120 120 120	Metals (g %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese	SampT Batch Analysis D Result 24 24 24 24 24 25 26 23 23 24	ype: LC n ID: 13 pate: 7/ PQL 2.5 0.10 0.30 0.30 1.0 0.25 0.10	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi R S SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9 96.1 99.8 103 92.2 95.3	A Method 639 9719 LowLimit 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil Units: mg/k HighLimit 120 120 120 120 120 120 120 120 120	Metals (g %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Sølenium	SampT Batch Analysis D Result 24 24 24 24 25 26 23 24 24 24 24	ype: LC n ID: 13 pate: 7/ PQL 2.5 0.10 0.10 0.30 0.30 1.0 0.25 0.10 2.5	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9 96.1 99.8 103 92.2 95.3 95.1	A Method 639 9719 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil Units: mg/k HighLimit 120 120 120 120 120 120 120 120 120 120	Metals (g %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver	SampT Batch Analysis D 24 24 24 24 24 25 26 23 24 24 24 24 25	ype: LC n ID: 13 pate: 7/ PQL 2.5 0.10 0.10 0.30 0.30 0.30 0.30 0.25 0.10 2.5 0.25	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi R SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9 96.1 99.8 103 92.2 95.3 95.1 99.3	A Method 639 9719 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil Units: mg/k HighLimit 120 120 120 120 120 120 120 120 120 120	Metals (g %RPD	RPDLimit	Qual
Sample ID LCS-13973 Client ID: LCSS Prep Date: 6/30/2014 Analyte Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver Zinc	SampT Batch Analysis D 24 24 24 24 24 25 26 23 24 24 24 24 25 26 23 24 24 24 24 24	ype: LC n ID: 13 Date: 7/ PQL 2.5 0.10 0.30 0.30 0.30 0.30 0.30 0.25 0.10 2.5 0.25 2.5	S 973 2/2014 SPK value 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00 25.00	Tesi SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Code: EP RunNo: 19 SeqNo: 56 <u>%REC</u> 97.9 95.8 96.9 96.1 99.8 103 92.2 95.3 95.1 99.3 97.8	A Method 639 9719 LowLimit 80 80 80 80 80 80 80 80 80 80 80 80 80	6010B: Soil Units: mg/k HighLimit 120 120 120 120 120 120 120 120 120 120	Metals (g %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 6 of 6

HALL ENVIRONMENTAL ANALYSIS LABORATORY Website: w	4901 Hawkin Albuguergue, NM 8 5-3975 FAX: 505-345- ww.hallenvironmental	28 NE 17105 Sam 14107 1.com	ple Log-In Check List
Client Name: J & L LANDFARM Work Order Nu	mber: 1406D01		RcptNo: 1
Received by/date: C.S. OLD/27/14 Logged By: Michelle Garcia 6/27/2014 8:50:00	0 AM	Minul Ga	nur
Completed By: Michelle Garcia 6/27/2014 10:52:	27 AM	Minul Co	uin)
Reviewed By: Arnel30/14		. ,	
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?	FedEx		
i og Ip			
 Was an attempt made to cool the samples? 	Yes 🗹	No 🗋	
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)?	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 🗹	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆	# or preserved bottles checked for pH: (<2 or >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?(If no, notify customer for authorization.)	Yes 🗹	No 🗌	Checked by:
Special Handling (if applicable)			

16.Was	s client notified of all o	liscrepancies with this order?	Yes 🗌	No 🗔	NA 🗹
	Person Notified:		Date:	And the state of the second	
	By Whom:		Via: 🔲 eMail 🛄 P	hone 🗌 Fax 🛄 I	n Person
	Regarding:	a an	والمتعاقبة المتعارضة والمتحاول والمحاور المحاوي والمحاول والمح	n ja et et tra e thas and and all the standards at a start of	
	Client Instructions:	· · · · · · · · · · · · · · · · · · ·			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Yes			,

Client:	Chain	-of-Cu	istody F	Record	Turn-Around	Time:					H		LE	N	/16	20	N	ME	:NT	'AI	e.
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Z Stan	dard		🗆 Level 4 (Full Validation)	Judy Koberts			1. 	Ö	R		NIS	Allenvironmental.com								
Accred	itation		_		Sampler: Ship Ja			N N	H	2	E			l S Z	808				i I		14
					On ice:	Yes	D No	+	+	R S S	418	202	s S	ļģ	- Se		(Yo	x			12
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Data	Time	Motrix	Sampla	Poqueet (D)	Container	Preservative		≥ +	≥ +	3015	Met	Wet Wet	8	S F	Pes	Š	(Ser				44
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical another

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 14, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr metals Cell 35

OrderNo.: 1406D02

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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 1406D02

Hall Environmental Analysis Laboratory, Inc.

Vadose Zone 5 yr metals Cell 35

CLIENT: J & L Landfarm

Project:

Date Reported: 7/14/2014 Client Sample ID: Cell #35 #1 Collection Date: 6/24/2014 10:44:00 AM

Received Date: 6/27/2014 8:50:00 AM

Lab ID: 1406D02-001	Matrix: S	SOIL	Received	Received Date: 6/27/2014 8:50:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 7471: MERCURY					Analyst	TES				
Mercury	ND	0.032	mg/Kg	1	7/3/2014 11:05:51 AM	14019				
EPA METHOD 6010B: SOIL METALS					Analyst	ELS				
Arsenic	ND	13	mg/Kg	5	7/9/2014 9:15:34 AM	13974				
Barium	310	0.20	mg/Kg	2	7/3/2014 11:10:53 AM	13974				
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 3:03:27 PM	13974				
Chromium	3.4	0.31	mg/Kg	1	7/2/2014 3:03:27 PM	13974				
Copper	0.59	0.31	mg/Kg	1	7/2/2014 3:03:27 PM	13974				
Iron	3300	20	mg/Kg	20	7/3/2014 11:16:25 AM	13974				
Lead	ND	5.1	mg/Kg	20	7/3/2014 11:16:25 AM	13974				
Manganese	21	0.10	mg/Kg	1	7/2/2014 3:03:27 PM	13974				
Selenium	ND	2.6	mg/Kg	1	7/3/2014 11:05:09 AM	13974				
Silver	ND	0.26	mg/Kg	1	7/2/2014 3:03:27 PM	13974				
Zinc	7.1	2.6	mg/Kg	1	7/2/2014 3:03:27 PM	13974				

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

Qualifiers:

*

- Е 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 S

Value exceeds Maximum Contaminant Level.

- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- RL Reporting Detection Limit
- Page 1 of 8

Hall Environmental Analy	sis Laborat	tory, Inc.			Analytical Report Lab Order 1406D02 Date Reported: 7/14/20	14				
CLIENT: J & L Landfarm Project: Vadose Zone 5 yr metals Ce Lab ID: 1406D02-002	ell 35 Matrix: S	SOIL	Client Sample ID: Cell #35 #2 Collection Date: 6/24/2014 10:53:00 AM Received Date: 6/27/2014 8:50:00 AM							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 7471: MERCURY				• .	Analys	t: TES				
Mercury	ND	0.032	mg/Kg	1	7/3/2014 11:07:36 AM	14019				
EPA METHOD 6010B: SOIL METALS	i			· . · ·	Analys	t: ELS				
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:19:15 AM	13974				
Barium	420	0.49	mg/Kg	5	7/3/2014 11:17:49 AM	13974				
Cadmium	ND	0.097	mg/Kg	1	7/2/2014 3:07:43 PM	13974				
Chromium	1.9	0.29	mg/Kg	1	7/2/2014 3:07:43 PM	13974				
Copper	0.43	0.29	mg/Kg	1	7/2/2014 3:07:43 PM	13974				
Iron	1700	9.7	mg/Kg	[·] 10	7/3/2014 11:24:59 AM	13974				
Lead	ND	0.24	mg/Kg	1	7/2/2014 3:07:43 PM	13974				
Manganese	19	0.097	mg/Kg	1	7/2/2014 3:07:43 PM	13974				
Selenium	ND	2.4	ˈmg/Kg	1	7/2/2014 3:07:43 PM	13974				
Silver	ND	0.24	mg/Kg	1	7/2/2014 3:07:43 PM	13974				
Zinc	3.9	2.4	mg/Kg	1	7/2/2014 3:07:43 PM	13974				

			1					
Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method	Blank			
	Е	Value above quantitation range	Н	Holding times for preparation or analysis e	xceeded			
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2 of				
	0	RSD is greater than RSDImit	Р	Sample pH greater than 2.	r age 2 01 8			
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						
		·	1					

Analytical Report

Lab Order 1406D02

Date Reported: 7/14/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Client Sample ID: Cell #35 #3 Vadose Zone 5 yr metals Cell 35 Collection Date: 6/24/2014 11:01:00 AM 1406D02-003 Matrix: SOIL Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.033	mg/Kg	1	7/3/2014 11:09:21 AM	14019
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:20:29 AM	13974
Barium	250	0.19	mg/Kg	2	7/3/2014 11:26:38 AM	13974
Cadmium	ND	0.097	mg/Kg	1	7/2/2014 3:09:13 PM	13974
Chromium	3.2	0.29	mg/Kg	1	7/2/2014 3:09:13 PM	13974
Copper	0.56	0.29	mg/Kg	1	7/2/2014 3:09:13 PM	13974
Iron	3000	19	mg/Kg	20	7/3/2014 11:27:57 AM	13974
Lead	ND	4.9	mg/Kg	20	7/3/2014 11:27:57 AM	13974
Manganese	20	0.097	mg/Kg	1	7/2/2014 3:09:13 PM	13974
Selenium	ND	2.4	mg/Kg	1	7/2/2014 3:09:13 PM	13974
Silver	ND	0.24	mg/Kg	1	7/2/2014 3:09:13 PM	13974
Zinc	6.7	2.4	mg/Kg	1	7/2/2014 3:09:13 PM	13974

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

Qualifiers:

*

Project:

Lab ID:

- 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 S
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Ρ Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 3 of 8

Hall Environmental Analysi	s Laborat	ory, Inc.			Analytical Report Lab Order 1406D02 Date Reported: 7/14/20	14		
CLIENT:J & L LandfarmProject:Vadose Zone 5 yr metals CellLab ID:1406D02-004	35 Matrix: S	SOIL	Client Sampl Collection I Received I	e ID: Ce Date: 6/2 Date: 6/2	Cell #35 #4 6/24/2014 11:09:00 AM 6/27/2014 8:50:00 AM			
Analyses	Result	RĹ Qua	Units	DF	Date Analyzed	Batch		
EPA METHOD 7471: MERCURY					Analyst	: TES		
Mercury	ND	0.033	mg/Kg	<u></u> 1	7/3/2014 11:11:07 AM	14019		
EPA METHOD 6010B: SOIL METALS		•			Analyst	ELS		
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:24:03 AM	13974		
Barium	460	0.48	mg/Kg	5	7/3/2014 11:29:18 AM	13974		
Cadmium	ND ··	0.096	mg/Kg	1	7/2/2014 3:10:39 PM	13974		
Chromium	1.5	0.29	mg/Kg	1	7/2/2014 3:10:39 PM	13974		
Copper	0.41	0.29	mg/Kg	1	7/2/2014 3:10:39 PM	13974		
Iron	1300	9.6	mg/Kg	10	7/3/2014 11:30:41 AM	13974		
Lead	ND	0.24	mg/Kg	1	7/2/2014 3:10:39 PM	13974		
Manganese	14	0.096	mg/Kg	1	7/2/2014 3:10:39 PM	13974		
Selenium	ND	2.4	mg/Kg	1	7/2/2014 3:10:39 PM	13974		
Silver	ND	0.24	mg/Kg	1	7/2/2014 3:10:39 PM	13974		
Zinc	3.2	2.4	mg/Kg	1	7/2/2014 3:10:39 PM	13974		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	• • •		в	Analyte detected in the associated Method	l Blank
	Е	Value above quantitation range	. •		H	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	· ·	· N	D	Not Detected at the Reporting Limit	Page 4 of 8
	0	RSD is greater than RSDlimit	:		P	Sample pH greater than 2.	1 450 + 01 0
	R	RPD outside accepted recovery limits	· :	· F	RT.	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits				*	

14-Jul-14

Client: J & L Landfarm Project: Vadose Zone 5 yr metals Cell 35 Sample ID MB-14019 TestCode: EPA Method 7471: Mercury SampType: MBLK Client ID: PBS Batch ID: 14019 RunNo: 19667 Prep Date: 7/2/2014 Analysis Date: 7/3/2014 SeqNo: 570947 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury ND 0.033 Sample ID LCS-14019 SampType: LCS TestCode: EPA Method 7471: Mercury RunNo: 19667 Client ID: LCSS Batch ID: 14019 SeqNo: 570948 Prep Date: 7/2/2014 Analysis Date: 7/3/2014 Units: mg/Kg SPK value SPK Ref Val %REC Analyte Result PQL LowLimit HighLimit %RPD RPDLimit Qual 0.17 0.033 0.1667 99.4 80 120 Mercury 0

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
- S 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
- Р Sample pH greater than 2.

Page 5 of 8

Reporting Detection Limit RL

WO#:

1406D02 14**-Ju**l-14

Client: Project:	J & I Vado	L Landfarm ose Zone 5 yr r	netals C	ell 35	<u></u>			•			
Sample ID	MB-13974	Samp	Гуре: МЕ	BLK	Tes	tCode: EP	A Method	6010B: Soil	 Metals		
Client ID:	PBS	Batc	h ID: 13	974	F	RunNo: 19	602				,
Prep Date:	6/30/2014	Analysis [Date: 7/	1/2014	S	SeqNo: 56	8216	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10					•			
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30				1	. '			
Lead		ND	0.25								
Mannanese		ND	0.10	,					÷		
Selenium		ND	2.5								
Silver	•		0.25		· · · ·						
Zinc		ND	2.5								
					 	Code: 50		0040Pr 0 all			
	LCS-13974	Samp	iype: LC	.S	res			6010B: SOIL	Metals		
Client ID:	LCSS	Batc	n ID: 13	9/4	F	unino: 19	602		_		
Prep Date:	6/30/2014	Analysis [Date: 7/	1/2014	5	SeqNo: 56	8217	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		25	2.5	25.00	0	101	80	120			
Barium		25	0.10	25.00	0	98.6	80	120			
Cadmium		25	0.10	25.00	0	99.1	80	120			
Chromium .		, 25	0.30	25.00	0	100	80	120			
Copper		26	0.30	25.00	0,	103	80	120			
Lead		24	0.25	25.00	, 0	96.1	80	120			
Manganese		25	0.10	25.00	0	98.5	80	120			
Selenium		23	2.5	25.00	0	93.6	80	120			
Silver		5.1	0.25	5.000	0	102	80	· 120			
Zinc		24	2.5	25.00	0	98.0	80	120			
Sample ID	MB-13974	Samp	уре: МЕ	BLK	Tes	tCode: EP	A Method	6010B: Soil	Metals		
Client ID:	PBS	Batc	h ID: 13	974	R	tunNo: 19	639				
Prep Date:	6/30/2014	Analysis E	Date: 7/	2/2014	s	eqNo: 56	9720	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10								
Cadmium		ND	0.10					,			
Chromium		ND	0.30		· . ,		1		•		
Copper		ND	0.30			- x					
Iron		ND	1.0				· ·				
Lead		ND	0.25								
Manganese		ND	0.10								
Qualifiers: * Value E Value	exceeds Maxim	um Contaminant	Level.		B Analyte	detected in	the association of	ted Method Bla	ink eded	· .	

Analyte detected below quantitation limits J

0 RSD is greater than RSDlimit

RPD outside accepted recovery limits R

S Spike Recovery outside accepted recovery limits Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Ρ Sample pH greater than 2.

RL Reporting Detection Limit

Page 6 of 8

Client: Project:	J & L Lar Vadose Z	ndfarm ione 5 yr m	netals C	ell 35							-			
Sample ID	MB-13974	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	6010B: Soll	Metals					
Client ID:	PBS	Batch	n ID: 13	974	RunNo: 19639									
Prep Date:	6/30/2014	Analysis D)ate: 7/	2/2014	S	SeqNo: 5	69720	Units: mg/M	(g					
Analyte		Result	POI	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	~ %RPD	RPDI imit	Oual			
Selenium		ND	2.5											
Silver		ND	0.25											
Zinc		ND	2.5								_			
Sample ID	LCS-13974	SampT	ype: LC	s	Tes	tCode: El	PA Method	6010B: Soil	Metals					
Client ID:	LCSS	Batch	n ID: 13	974	F	RunNo: 19639								
Prep Date:	6/30/2014	Analysis D)ate: 7/	2/2014	· §	SeqNo: 5	69721	Units: mg/H	ζg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Quaí			
Arsenic		24	2.5	25.00	0	95.3	80	120						
Barium		24	0.10	25.00	0	97.2	80	120						
Cadmium		24	0.10	25.00	0	96.7	80	120						
Chromium		24	0.30	25.00	0	97.3	80	120						
Copper		26	0.30	25.00	· 0	103	80	120						
Iron		26	1.0	25.00	0	103	80	120						
Lead		23	0.25	25.00	0	91.7	80	120						
Manganese		24	0.10	25.00	0	97.3	80	120						
Selenium		23	2.5	25.00	0	90.9	80	120						
Silver		5.0	0.25	5.000	0	101	80	120						
Zinc		24	2.5	25.00	0	96.4	80	120						
Sample ID	1406D02-001AMS	SampT	ype: MS		Tes	tCode: El	PA Method	6010B: Soil	Metals		<u> </u>			
Client ID:	Cell #35 #1	Batch	n ID: 13	974	F	RunNo: 1	9639							
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	5	SeqNo: 5	70053	Units: mg/M	(g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Cadmium		23	0.10	25.55	0	91.5	75	125						
Chromium		25	0.31	25.55	3.434	84.0	75	125						
Copper		26	0.31	25.55	0.5920	97.5	75	125						
Manganese		45	0.10	25.55	21.31	91.8	75	125						
Silver		4.7	0.26	5.109	0	91.6	75	125						
Zinc		28	2.6	25.55	7.128	80.2	75	125						
Sample ID	1406D02-001AMS	D SampT	ype: MS	SD	Tes	tCode: El	PA Method	6010B: Soil	Metals					
Client ID:	Cell #35 #1	Batch	n ID: 13	974	F	RunNo: 1	9639							
Prep Date:	6/30/2014	Analysis D)ate: 7/	2/2014	5	SeqNo: 5	70054	Units: mg/k	(g	2				
Analyte		Result	PQL	SPK value	SPK Ref Vai	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Cadmium		22	0.098	24.48	0	91.5	75	125	4.30	20				
Chromium		24	0.29	24.48	3.434	83.2	75	125	4.49	20				

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 greater than 2.
- RL Reporting Detection Limit

Page 7 of 8

1406D02 *14-Jul-14*

WO#:
Hall Environmental Analysis Laboratory, Inc.

WO#:

1406D02 14-Jul-14

Client: J & L Landfarm Vadose Zone 5 vr metals Cell 35 **Project:** TestCode: EPA Method 6010B: Soil Metals Sample ID 1406D02-001AMSD SampType: MSD Client ID: Cell #35 #1 Batch ID: 13974 RunNo: 19639 Prep Date: 6/30/2014 Analysis Date: 7/2/2014 SeqNo: 57,0054 Units: mg/Kg SPK Ref Val %REC %RPD Analyte Result POL SPK value HighLimit RPDLimit Qual LowLimit Copper 24 0.29 0.5920 24.48 97.0 75 125 4.66 20 Manganese 42 0.098 24.48 21.31 82.8 75 125 7.37 20 Silver 4.5 0.24 4.896 ٥ 91.7 75 125 4.15 20 26 Zinc 2.4 24.48 7.128 78.3 75 125 4.90 20 TestCode: EPA Method 6010B: Soil Metals Sample ID 1406D02-001AMS SampType: MS Client ID: Cell #35 #1 Batch ID: 13974 RunNo: 19675 Prep Date: 6/30/2014 Analysis Date: 7/3/2014 SeaNo: 571162 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Selenium 18 2.6 25.55 n 75 125 S 721 Sample ID 1406D02-001AMSD SampType: MSD TestCode: EPA Method 6010B: Soil Metals Client ID: Cell #35 #1 Batch ID: 13974 RunNo: 19675 Prep Date: 6/30/2014 Analysis Date: 7/3/2014 SeqNo: 571163 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %RFC LowLimit HighLimit %RPD RPDLimit Qual Selenium 16 2.4 24.48 n 65.8 75 125 20 13.4 S Sample ID 1406D02-001AMS SampType: MS TestCode: EPA Method 6010B: Soil Metals Client ID: RunNo: 19760 Cell #35 #1 Batch ID: 13974 Prep Date: 6/30/2014 Analysis Date: 7/9/2014 SeaNo: 574101 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC %RPD Analyte LowLimit HighLimit **RPDLimit** Qual 29 Arsenic 13 25.55 Ō 114 75 125 SampType: MSD Sample ID 1406D02-001AMSD TestCode: EPA Method 6010B: Soil Metals Client ID: Cell #35 #1 Batch ID: 13974 RunNo: 19760 Prep Date: 6/30/2014 Analysis Date: 7/9/2014 SeqNo: 574102 Units: mg/Kg ·Result PQL SPK value SPK Ref Val %REC %RPD RPDLimit Analyte LowLimit HighLimit Qual Arsenic 28 12 24.48 113 125 4.44 20 0 75

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

Page 8 of 8

- Sample pH greater than 2. Р
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Envir TEL: 505- Website	onmental Analysis Labora 4901 Hawkins Albuquerque, NM 87 345-3975 FAX: 505-345-4 : www.hallenvironmental.	Iple Log-In Check List			
Client Name: J & L LANDFARM	Work Order	Number: 1406D02		RcptNo:		
Received by/date: CS	alph 14		·			
Logged By: Michelle Garcla	6/27/2014 8:50	0:00 AM	Michael Gon	un		
Completed By: Michelle Garcia	6/27/2014 10:5	54:29 AM	Minute Con	ue)		
Reviewed By:	506/30114					
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?		<u>FedEx</u>				
Loa In						
4. Was an attempt made to cool th	e samples?	Yes 🗹	No 🗔	NA 🗆		
5. Were all samples received at a t	emperature of >0° C to 6.0	°C Yes 🗹	No 🗌	NA 🗌		
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗌			
7. Sufficient sample volume for ind	icated test(s)?	Yes 🗹	No 🗖			
8. Are samples (except VOA and C	NG) properly preserved?	Yes 🗹	. No 🗖			
9. Was preservative added to bottle	es?	Yes 🗌	No 🗹	NA 🗆		
10.VOA vials have zero headspace	?	Yes 🗌	No 🗖	No VOA Vials 🗹		
11. Were any sample containers re-	ceived broken?	Yes 🗖	No 🗹	# = f = = = = = = = = = = = = = = = = =		
12. Does paperwork match bottle lai	bels?	Yes 🗹	No 🗔	# of preserved bottles checked for pH:		
(Note discrepancies on chain of	custody)		No [7]	<pre>(<2 or</pre>	>12 unless noted)	
13. Are matrices correctly identified	on Chain of Custody?	Yes M				
15. Were all holding times able to be	e met?	Yes M		Checked by:		
(If no, notify customer for author	ization.)					
Special Handling (if applical			·	• 1		
16 Was client notified of all discrete	ncies with this order?	Yes 🗍	No 🗍	NA 🔽		
Domon Matified.		Date:				
By Whom:			Phone I Fax	In Person		
Regarding:	And and a second s					
Client Instructions:	1. Land Variation Field (Land Variation Field and Theorem 1 and the field and the field of th	namena ana ang sang sang sang sang sang sang	an and the set of the			
17. Additional remarks:				· · · · · · · · · · · · · · · · · · ·		
18. <u>Cooler Information</u>						
Cooler No Temp °C Co	ndition Seal Intact Sea	I No Seal Date	Signed By			
p.5	1 185			• ·		

Page 1 of 1

Client: Mailing Po Phone	Chain +L Address Box #: 5	-of-Ci Landf 356 75-6	ustody Record um Hobles NM 88241 31-5765	Turn-Around Time: Standard I Rush Project Name: Vadose Zene 5 yr metals Cell # 35 Project#:				4901 Tel.	Hawl	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com Hawkins NE - Albuquerque, NM 87109 605-345-3975 Fax 505-345-4107 Analysis Request										
ernail c QA/QC Z Star Accred D NEL	or Fax#: Package: ndard litation AP D (Type)		Pl97 g Q0 (Com Com Com	Project Mana Judg Sampler: On Ice: Sample Temp	ger: obeT5 by Yes perature:	□ No 5,5°	ATBE + TMB's (8021)	ATBE + TPH (Gas only)	00 (GKU / UKU / MKU) thod 418.1)	thod 504.1)	310 or 8270 SIMS)	Metals	;,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	ticides / 8082 PCB's	OA)	mi-VOA)	لہ کم		/V AN	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	неал No. 14(10D62 —001	BTEX + N	BTEX + N	TPH (Me	EDB (Me	PAH's (8:	RCRA 81	Anions (F	8081 Pes	8260B (V	8270 (Sei	Clem >		Air Budd	INNO INNI
	1053 1101 1101 1109					- 002 - 003 - 004											x x X X			*
<u> </u>																				
																				-
Date:	Time: 1130 Time:	Relinquishe	ed by:	Received by: <u>Celuce</u> Received by:	- Sua	Date Time 06/27/14 0850 Date Time	Rem *	arks: Stail Ba	E g	/ 2 , ()	~, C	'ч _ј	Fe	.,P	Ъ,	Mı	n , f	tg.se M	Ag2,	- r

HALL ENVIRONMENTAI ANALYSIS LABORATORY

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

July 11, 2014 Judy Roberts

J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr Metals Cell #36

OrderNo.: 1406D03

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 for the analyses presented in the following report.

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These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 1406D03

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Vadose Zone 5 yr Metals Cell #36 **Project:** Lab ID: 1406D03-001 Matrix: SOIL

Client Sample ID: Cell #36 #1 Collection Date: 6/24/2014 11:30:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 7471: MERCURY					Analyst	TES	
Mercury	ND	0.033	mg/Kg	1	7/3/2014 11:16:35 AM	14019	
EPA METHOD 6010B: SOIL METALS					Analyst	ELS	
Arsenic	ND	13	mg/Kg	5	7/9/2014 9:25:18 AM	13974	
Barium	500	0.51	mg/Kg	5	7/3/2014 11:32:03 AM	13974	
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 3:12:04 PM	13974	
Chromium	3.9	0.30	mg/Kg	1	7/2/2014 3:12:04 PM	13974	
Соррег	0.61	0.30	mg/Kg	1	7/2/2014 3:12:04 PM	13974	
Iron	3800	20	mg/Kg	20	7/3/2014 11:33:23 AM	13974	
Lead	ND	1.3	mg/Kg	5	7/3/2014 11:32:03 AM	13974	
Manganese	31	0.10	mg/Kg	1	7/2/2014 3:12:04 PM	13974	
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:12:04 PM	13974	
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:12:04 PM	13974	
Zinc	8.2	2.5	mg/Kg	1	7/2/2014 3:12:04 PM	13974	

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
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- Page 1 of 7
- RL **Reporting Detection Limit**

Hall Environmental Analys	is Laborat			Analytical Report Lab Order 1406D03 Date Reported: 7/11/20	14			
CLIENT: J & L Landfarm Project: Vadose Zone 5 yr Metals Cell Lab ID: 1406D03-002	#36 Matrix: S	Client Sample ID: Cell #36 #2 Collection Date: 6/24/2014 11:38:00 AM Received Date: 6/27/2014 8:50:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 7471: MERCURY					Analyst	TES		
Mercury	ND	0.032	mg/Kg	1	7/3/2014 11:18:21 AM	14019		
EPA METHOD 6010B: SOIL METALS					Analyst	ELS		
Arsenic	ND	13	mg/Kg	5	7/9/2014 9:26:33 AM	13974		
Barium	240	0,10	mg/Kg	1	7/2/2014 3:13:32 PM	13974		
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 3:13:32 PM	13974		
Chromium	3.9	0.30	mg/Kg	1	7/2/2014 3:13:32 PM	13974		
Соррег	0.59	0.30	mg/Kg	1	7/2/2014 3:13:32 PM	-13974		
Iron	4100	20	mg/Kg	20	7/3/2014 11:34:46 AM	13974		
Lead	ND	5.1	mg/Kg	20	7/3/2014 11:34:46 AM	13974		
Manganese	29	0.10	mg/Kg	1	7/2/2014 3:13:32 PM	13974		
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:13:32 PM	13974		
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:13:32 PM	13974		
Zinc	8.8	2.5	mg/Kg	1	7/2/2014 3:13:32 PM	13974		

			1.2	
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2 of 7
	O RSD is greater than RSD limit		Р	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits	·	· · · · · · · · · · · · · · · · · · ·
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Analytical Report Lab Order 1406D03

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/11/2014

CLIENT: J & L Landfarm Vadose Zone 5 yr Metals Cell #36 **Project:**

1406D03-003

Lab ID:

Client Sample ID: Cell #36 #3

Collection Date: 6/24/2014 11:49:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	_ DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	: TES
Mercury	ND	0.034	mg/Kg	1	7/3/2014 11:20:07 AM	14019
EPA METHOD 6010B: SOIL METALS					Analys	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:27:46 AM	13974
Barium	410	0.50	mg/Kg	5	7/3/2014 11:36:26 AM	13974
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 3:14:59 PM	13974
Chromium	3.5	0.30	mg/Kg	1	7/2/2014 3:14:59 PM	13974
Copper	0.52	0.30	mg/Kg	1	7/2/2014 3:14:59 PM	13974
Iron	4100	20	mg/Kg	20	7/3/2014 11:37:45 AM	13974
Lead	ND	1.2	mg/Kg	5	7/3/2014 11:36:26 AM	13974
Manganese	27	0.099	mg/Kg	1	7/2/2014 3:14:59 PM	13974
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:14:59 PM	13974
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:14:59 PM	13974
Zinc	7.2	2.5	mg/Kg	1	7/2/2014 3:14:59 PM	13974

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.	
	Е	Value above quantitation range	
	J	Analyte detected below quantitation limits	N

- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- 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 greater than 2.
- Page 3 of 7
- RL

Reporting Detection Limit

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406D03

Date Reported: 7/11/2014

CLIENT: J & L Landfarm

Project:Vadose Zone 5 yr Metals Cell #36Lab ID:1406D03-004Matrix: SOIL

Client Sample ID: Cell #36 #4 Collection Date: 6/24/2014 11:58:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY	,				Analyst	TES
Mercury	ND	0.032	mg/Kg	. 1	7/3/2014 11:21:54 AM	14019
EPA METHOD 6010B: SOIL METALS		**	·	· .	Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:28:59 AM	13974
Barium	180	0.099	mg/Kg	1	7/2/2014 3:21:35 PM	13974
Cadmium	ND	0.099	mg/Kg	1 ¹ 1	7/2/2014 3:21:35 PM	13974
Chromium	.4.1	0.30	mg/Kg	1	7/2/2014 3:21:35 PM	13974
Copper	0.59	0.30	mg/Kg	1	7/2/2014 3:21:35 PM	13974
Iron	4200	20	mg/Kg	20	7/3/2014 11:44:10 AM	13974
Lead	ND	5.0	mg/Kg	20	7/3/2014 11:44:10 AM	13974
Manganese	- 31	0.099	mg/Kg	1	7/2/2014 3:21:35 PM	13974
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:21:35 PM	13974
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:21:35 PM	13974
Zinc	9.0	2.5	mg/Kg	1	7/2/2014 3:21:35 PM	13974

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Ε	Value above quantitation range	н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 4 of 7
	O RSD is greater than RSDlimit		P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

(

J & L L Vadose	andfarm Zone 5 yr Metals Cell #36	
19	SampType: MBLK	TestCode: EPA Method 7471: Mercury
	Batch ID: 14019	RunNo: 19667

Prep Date: 7/2/2014	Analysis D	Analysis Date: 7/3/2014			SeqNo: 570947			Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	
Mercury	ND	0.033								
Sample ID LCS-14019	SampT	Type: LC	:s	Tes	tCode: E	PA Method	7471: Mercu	iry		
Client ID: LCSS	Batcl	h ID: 14	019	F	RunNo: 1	9667				
Prep Date: 7/2/2014	Analysis E	Date: 7	3/2014	5	SeqNo: 5	70948	Units: mg/ł	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	
Mercury	0.17	0.033	0.1667	0	99.4	80	120			

Mercury

= **Client:**

Project:

Client ID:

Sample ID MB-14019

PBS

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- 0 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 В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 5 of 7

WO#: 1406D03

Qual

Qual

11-Jul-14

WO#: 1406D03

11-Jul-14

Hall Environmental Analysis Laboratory, Inc. ----

Client: J & L Landfarm **Project:** Vadose Zone 5 yr Metals Cell #36

							· ·	<u></u>			<u></u>
Sample ID	MB-13974	Samp	Type: MI	BLK	Tes	tCode: El	A Method	6010B: Soil I	Vietals		
Client ID:	PBS	Bato	h ID: 13	974	· F	RunNo: 1	9602	· . '			
Prep Date:	6/30/2014	Analysis I	Date: 7/	1/2014	' s	SeqNo: 50	68216	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		_ ND	2.5								
Barium		ND	0.10						,		
Cadmium		ND	0.10								
Chromium		ND	0.30	•				-			
Copper		ND	0.30				ļ				
Lead		ND	0.25								
Manganese		ND	0.10			**		· .			, ,
Selenium		ND	2.5								
Silver		ND	0.25								
Zinc		ND	2.5	· ·				· · ·			
Sample ID	LCS-13974	Samp	Type: LC	s	 Tes	tCode: El	A Method	6010B: Soil I	Metals		
Client ID:	LCSS	Bato	h ID: 13	974	F	RunNo: 19	9602	· .			
Prep Date:	6/30/2014	Analysis I	Date: 7/	1/2014	S	SeqNo: 50	68217	Units: mg/K	g		•
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		25	2.5	25.00	0	101	80	120			
Barium		25	0.10	25.00	0	98.6	80	120			
Cadmium		25	0.10	25.00	0	99.1	80	120			
Chromium		25	0.30	25.00	0	100	80	120			
Copper		26	0.30	25.00	0	103	80	120			
Lead		24	0.25	25.00	0	96.1	80	120			
Manganese		25	0.10	25.00	0	98.5	80	120			
Selenium		23	2.5	25.00	0	93.6	80	120			
Silver		5.1	0.25	5.000	0	102	80	120			
Zinc		24	2.5	25.00	0	98.0	80	120			
Sample ID	MB-13974	Samp	Туре: МЕ	BLK	Tes	tCode: EF	PA Method	6010B: Soil I	letals		
Client ID:	PBS	Bato	h ID: 13	974	F	RunNo: 19	9639				
Prep Date:	6/30/2014	Analysis I	Date: 7/	2/2014	s	6eqNo: 56	59720	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10								
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30								
Iron		ND	1.0								
Lead		ND	0.25								
Manganese		ND	0.10								

Qualifiers:

Е J

0

* Value exceeds Maximum Contaminant Level.

Analyte detected below quantitation limits

Value above quantitation range

RSD is greater than RSDlimit

Analyte detected in the associated Method Blank В

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

р

RPD outside accepted recovery limits R S Spike Recovery outside accepted recovery limits RL Reporting Detection Limit Page 6 of 7

Sample pH greater than 2.

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J& Vad	L Landfarm lose Zone 5 vr N	1etals C	Cell #36								
												Ξ
Sample ID	MB-13974	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	6010B: Soil	Metals			
Client ID:	PBS	Batch	ID: 13	974	F	RunNo: 1	9639					
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	S	SeqNo: 5	69720	Units: mg/k	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Quai	
Selenium		ND	2.5							1		
Silver		ND	0.25									
Zinc		ND	2.5									
Sample ID	LCS-13974	SampT	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil	Metals		<u> </u>	7
Client ID:	LCSS	Batch	ID: 13	974	F	RunNo: 1	9639					
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	S	SeqNo: 5	69721	Units: mg/k	۲g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		24	2.5	25.00	0	95.3	80	120				
Barium		24	0.10	25.00	0	97.2	80	120				
Cadmium		24	0.10	25.00	0	96.7	80	120				
Chromium		24	0.30	25.00	0	97.3	80	120				
Copper		26	0.30	25.00	0	103	80	120				
Iron		26	1.0	25.00	0	103	80	120				
Lead		23	0.25	25.00	0	91.7	80	120				
Manganese		24	0.10	25.00	0	97.3	80	120				
Selenium		23	2.5	25.00	0	90.9	80	120				
Silver		5.0	0.25	5.000	O	101	· 80	120				
7inc		24	25	25.00	0	96.4	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 greater than 2.
- RL Reporting Detection Limit

Page 7 of 7

WO#: 1406D03

11**-J**ul-14

HALL Hall Environmental ENVIRONMENTAL ANALYSIS LABORATORY TEL: 505-345- Website: www	ental Analysis Labor 4901 Hawkin Albuquerque, NM 8 3975 FAX: 505-345 w.hallenvironmenta	atory 15 NE 17105 Sam 4107 Leom	ple Log-In Check List
Client Name: J & L LANDFARM Work Order Nurr	nber: 1406D03		RcptNo: 1
Received by/date: CS 00/27/14		<i>ma</i> ' 0	
Logged By: Michelle Garcia 6/27/2014 8:50:00	AM	47 permite Cja	nue
Completed By: Michelle Garcia 6/27/2014 11:44:29	5 AM	Minute Cp	nue
Reviewed By: Ar OG (30117		·	
Chain of Custody		ć	
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?	<u>FedEx</u>		
Log In	•	- -	
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆	
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)?	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
12. Does paperwork match bottle labels?	Yes 🗹	No 🗆	for pH:
(Note discrepancies on chain of custody)	Vac M		Adjusted?
14 Is it clear what analyses were requested?	Yes 🔽		
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗆	Checked by:
	,		
<u>Special Handling (If applicable)</u>	, , –	···	, ··
16. Was client notified of all discrepancies with this order?			
Person Notified: Dat By Whom: Via: Regarding:	e: eMail	Phone [] Fax	
Client Instructions:	• • • • • • • • • • • • • • • • • • •		e national and the second
17. Additional remarks:			
18. <u>Cooler Information</u> Cooler No. Temp °C Condition Seal Intact Seal No. 1 5.5 Good Yes	Seal Date	Signed By	
	<u> </u>		, <u>, , , , , , , , , , , , , , , , , , </u>
Page 1 of 1	· · · · ·		

Client: Mailing Po Phone	hain Address Boc #: 5	-of-Cl -andf 356 25-6	usto Hob 31-5	dy R 8 //1 5765	lecord n <i>8</i> 8241	Turn Proje Proje	-Around Standard ect Name	Time: Rush e: MELS (Cell #36	HALL ENVIRONMENTA ANALYSIS LABORATO www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request					AL 'RY								
email o QA/QC Star Accred NEL	r Fax#: Package: Indard itation AP) (Type)		b 9b □ Le [*]	9 7 6 (F	ull Validation)	Proje Sam On Id Sam	pler:	ager: Kobe T 5 Kobe T 5 Kob	□ No 5,5°	MTBE + TMB's (8021)	MTBE + TPH (Gas only)	15B (GRO / DRO / MRO)	ethod 418.1)	ethod 504.1)	8310 of 82/0 SIMS) Matals	(F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	ssticides / 8082 PCB's	VOA)	emi-VOA)	Jr ×			oles (Y or N)
Date	Time (130	Matrix	Sa Ce		Request ID	Cor Type	ntainer e and #	Preservative Type	HEAL NO. 1406003 001 007	BTEX +	BTEX +	TPH 80	TPH (M	EDB (M	PAH'S (Anions (· 8081 Pe	8260B (8270 (S	Tam X	· · · · · · · · · · · · · · · · · · ·		Air Bubt
	1130 1141 1158				6) 63 64				-003 -004											7 7 ×			
•																							
Date:	Time: // 3 / Time:	Relinquish	ed by:	<u> </u>	· · · · · · · · · · · · · · · · · · ·	Receiv Cu Receiv	ved by:	- Sema	Date Time - 06/27/14/0850 Date Time	Rer	narks	s: Te	a) I	2									
			-		,						3 ₁ 0	a c		~ 1		ΓĽ	14		ุฬท	n mu N	1 se 1 oi	127	*}

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 11, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr Metals Cell #11

OrderNo.: 1406D16

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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 1406D16

Date Reported: 7/11/2014

7/3/2014 11:27:18 AM

7/2/2014 3:23:00 PM

7/3/2014 11:45:50 AM

7/3/2014 11:45:50 AM

7/2/2014 3:23:00 PM

7/2/2014 3:23:00 PM

7/2/2014 3:23:00 PM

7/2/2014 3:23:00 PM

14020

13974

13974

13974

13974

13974

13974

13974

13974

13974

13974

13974

Analyst: ELS

Hall Environmental Analysis Laboratory, Inc.

Mercury

Arsenic

Barium

Cadmium

Chromium

Manganese

Selenium

Copper

Iron

Lead

Silver

Zinc

EPA METHOD 6010B: SOIL METALS

CLIENT: J & L Landfarm Client Sample ID: Cell #11 #1 Vadose Zone 5 yr Metals Cell #11 Collection Date: 6/26/2014 11:55:00 AM **Project:** Lab ID: 1406D16-001 Matrix: SOIL Received Date: 6/27/2014 8:50:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 7471: MERCURY** Analyst: TES

0.033

2.5

0.10

0.10

0.30

0.30

51

13

0.10

2.5

0.25

2.5

mg/Kg

1

1

1

1

1

1

50

50

1

1

1

1

ND

ND

50

ND

4.7

1.1

ND

38

ND

ND

9.5

5000

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 7
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	ruge ror,
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Lab Order 1406D16

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Client Sample ID: Cell #11 #2 Vadose Zone 5 yr Metals Cell #11 Project: Collection Date: 6/26/2014 12:05:00 PM 1406D16-002 Lab ID: Matrix: SOIL Received Date: 6/27/2014 8:50:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed Batch F E

EPA METHOD /4/1: MERCURY					Analyst:	IES
Mercury	' ND	0.032	mg/Kg	1	7/3/2014 11:29:07 AM	14020
EPA METHOD 6010B: SOIL METALS					Analyst:	ELS
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 3:24:24 PM	13974
Barium	47	0.10	mg/Kg	1	7/2/2014 3:24:24 PM	13974
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 3:24:24 PM	13974
Chromium	6.3	0.30	mg/Kg	1	7/2/2014 3:24:24 PM	13974
Copper	0.45	0.30	mg/Kg	1	7/2/2014 3:24:24 PM	13974
Iron	7600	50	mg/Kg	50	7/3/2014 11:47:11 AM	13974
Lead	ND	13	mg/Kg	50	7/3/2014 11:47:11 AM	13974
Manganese	38	0.10	mg/Kg	1	7/2/2014 3:24:24 PM	13974
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:24:24 PM	13974
Silver	'ND	0.25	mg/Kg	1	7/2/2014 3:24:24 PM	13974
Zinc	12	2.5	mg/Kg	1	7/2/2014 3:24:24 PM	13974
			1 1			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	l Blank
	Е	Value above quantitation range	н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 7
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	1 450 2 01 7
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits		· · · ·	
		•			

Analytical Report Lab Order 1406D16

Date Reported: 7/11/2014

7/2/2014 3:25:47 PM

7/2/2014 3:25:47 PM

7/2/2014 3:25;47 PM

7/3/2014 11:48:33 AM

7/3/2014 11:48:33 AM

7/2/2014 3:25:47 PM

7/2/2014 3:25:47 PM

7/2/2014 3:25:47 PM

7/2/2014 3:25:47 PM

13974

13974

13974

13974

13974

13974

13974

13974

13974

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: Cell #11 #3 CLIENT: J & L Landfarm **Project:** Vadose Zone 5 yr Metals Cell #11 Collection Date: 6/26/2014 12:16:00 PM Lab ID: 1406D16-003 Matrix: SOIL Received Date: 6/27/2014 8:50:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed Batch EPA METHOD 7471: MERCURY Analyst: TES Mercury ND 0.032 mg/Kg 1 7/3/2014 11:30:56 AM 14020 EPA METHOD 6010B: SOIL METALS Analyst: ELS 2.4 ND 7/2/2014 3:25:47 PM Arsenic mg/Kg 1 13974 Barium 0.097 mg/Kg 7/2/2014 3:25:47 PM 13974 49 1

0.097

0.29

0.29

48

12

0.097

2.4

0.24

2.4

ND

4.7

1.1

5400

ND

40

ND

ND

9.5

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

1

1

1

50

50

1

1

1

1

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

Qualifiers:	*
	Б

Cadmium

Chromium

Manganese

Selenium

Copper

Iron

Lead

Silver

Zinc

- 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 3 of 7

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406D16

Date Reported: 7/11/2014

CLIENT:	J & L Landfarm		
Project:	Vadose Zone 5 yr Metals Cell #1	l į	
Lab ID:	1406D16-004	Matrix:	SOIL

Client Sample ID: Cell #11 #4 Collection Date: 6/26/2014 12:31:00 PM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.031	mg/Kg	1.	7/3/2014 11:32:47 AM	14020
EPA METHOD 6010B: SOIL METALS		*. 			Analyst	ELS
Arsenic	ND	2.5	mg/Kg	. 1	7/2/2014 3:27:11 PM	13974
Barium	51	0.098	mg/Kg	<u> </u>	7/2/2014 3:27:11 PM	13974
Cadmium	ND	0.098	mg/Kg	· 1	7/2/2014 3:27:11 PM	13974
Chromium	. 6.6	0.29	mg/Kg	1	7/2/2014 3:27:11 PM	13974
Copper	0.58	0.29	mg/Kg	1	7/2/2014 3:27:11 PM	13974
Iron	7900	49	mg/Kg	50	7/3/2014 12:08:53 PM	13974
Lead	ND	12	mg/Kg	50	7/3/2014 12:08:53 PM	13974
Manganese	38	0.098	mg/Kg	1	7/2/2014 3:27:11 PM	13974
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:27:11 PM	13974
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:27:11 PM	13974
Zinc	13	2.5	mg/Kg	1	7/2/2014 3:27:11 PM	13974

Qualifiers:	*	Value exceeds Maximum Contaminant Level.			В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range		•	Ĥ	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	·		ND	Not Detected at the Reporting Limit	Page 4 of 7
	0	RSD is greater than RSD limit			P	Sample pH greater than 2.	rage 4 01 /
	R	RPD outside accepted recovery limits			RL	Reporting Detection Limit	*
	S	Spike Recovery outside accepted recovery limits				· · · · · · · · · · · ·	· .

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D16

11-Jul-14

Client: J & L Landfarm **Project:** Vadose Zone 5 yr Metals Cell #11 Sample ID MB-14020 TestCode: EPA Method 7471: Mercury SampType: MBLK Client ID: PBS Batch ID: 14020 RunNo: 19667 Prep Date: 7/2/2014 SeqNo: 570975 Analysis Date: 7/3/2014 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL ND 0.033 Mercury Sample ID LCS-14020 SampType: LCS TestCode: EPA Method 7471: Mercury Client ID: LCSS RunNo: 19667 Batch ID: 14020 Analysis Date: 7/3/2014 SeqNo: 570976 Prep Date: 7/2/2014 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result 0.17 0.033 0.1667 0 104 80 120 Mercury

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Value above quantitation range Ε

- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.

Page 5 of 7

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

1406D16

WO#:

11-Jul-14

Client: Project:	J & L L Vadose	andfarm Zone 5 yr N	/etals C			_				•	
	MB-13974	SamoT	vne: ME			tCode: E	PA Mothod	6010B: Soil I		· · ·	
Client ID:		Batch	JD: 12		- C3			00105.0011	ngtaia		
	PB3		11D. 13	J/4		Curiino. T	9002		· .		
Prep Date:	6/30/2014	Analysis L		1/2014	2	SeqNO: 5	68216	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10								
Cadmium		ND	0.10	-		۰.	• ,				
Chromium		ND	0.30		N .				•		
Copper	,	ND	0.30								
Lead		ND	0.25								
Manganese		ND	0.10	•							•
Selenium		· ND	2.5		<i>i</i> .		· .				
Silver		[°] ND	0.25						· ·		
Zinc		ND	2.5								
Sample ID	LCS-13974	SampT	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil I	Vietals	· · · · · ·	
Client ID:	LCSS	Batch	n ID: 13	974	·	RunNo: 1	9602				
Prep Date:	6/30/2014	Analysis D	ate: 7/	1/2014	: 5	SeqNo: 5	68217	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		25	2.5	25.00	0	101	80	120			
Barium		25	0.10	25.00	0	98.6	80	120	_		
Cadmium		25	0.10	25.00	0	99.1	80	120			
Chromium		25	0.30	25.00	0	100	80	120			
Copper		26	0.30	25.00	0	103	80	120			
Lead		24	0.25	25.00	0	96.1	80	120			
Manganese		25	0.10	25.00	0	98.5	80	120			
Selenium		23	2.5	25.00	0	93.6	80	120			
Silver		5.1	0.25	5.000	0	102	80	120			
Zinc		24	2.5	25.00	0	98.0	80	120			
Sample ID	MB-13974	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	6010B: Soil I	letals		
Client ID:	PBS	Batch	D: 13	974	F	RunNo: 1	9639				
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	S	SeqNo: 5	69720	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10								
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30								
Iron		ND	1.0								
Lead		ND	0.25								
Manganese		ND	0.10								
Qualifiers: * Value E Value	exceeds Maximum above quantitation	Contaminant I range	evel.	2 2	B Analyte H Holding	detected i	n the associat	ed Method Bla	nk eded		

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit Sample pH greater than 2.

RSD is greater than RSDlimit RPD outside accepted recovery limits

RL Reporting Detection Limit Page 6 of 7

Р

S Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits

J

0

R

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D16

11**-**Jul-14

Client: J & L Landfarm **Project:** Vadose Zone 5 yr Metals Cell #11 Sample ID MB-13974 TestCode: EPA Method 6010B: Soil Metals SampType: MBLK Client ID: PBS Batch ID: 13974 RunNo: 19639 Prep Date: SeqNo: 569720 6/30/2014 Analysis Date: 7/2/2014 Units: mg/Kg %RPD RPDLimit PQL SPK value SPK Ref Val %REC LowLimit HighLimit Analyte Result Qual Selenium ND 2.5 Silver ND 0.25 Zinc ND 2.5 Sample ID LCS-13974 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13974 RunNo: 19639 Prep Date: 6/30/2014 Analysis Date: 7/2/2014 SeqNo: 569721 Units: mg/Kg %REC %RPD RPDLimit Result PQL SPK value SPK Ref Val LowLimit HighLimit 2 Qual Analyte Arsenic 24 2.5 25.00 0 95.3 80 120 Barium 24 0.10 25.00 0 97.2 80 120 96.7 80 Cadmium 24 0.10 25.00 0 120 Chromium 24 0.30 25.00 0 97.3 80 120 26 0.30 25.00 0 103 80 120 Copper 26 0 103 80 120 Iron 1.0 25.00 23 0.25 25.00 0 91.7 80 120 Lead 25.00 0 97.3 80 120 24 0.10 Manganese 23 25.00 0 90.9 80 120 Selenium 2.5 5.0 0.25 5.000 0 101 80 120 Silver 96.4 80 120 Zinc 24 2.5 25.00 n

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 greater than 2.

RL Reporting Detection Limit

Page 7 of 7

· .

Hall Environmental Albu TEL: 505-345-3975 Website: www.ha	Analysis Labo 4901 Hawk uquerque, NM FAX: 505-345 illenvironment	ratory ins NE 87109 Samp 5-4107 al.com	ole Log-In Ch	eck List
Client Name: J & L LANDFARM Work Order Nymber:	1406D16		ReptNo: 1	
Received by/date: C.S. 00/27/201	<u>دار م</u> ر کرد. مراجع م			
Logged By: Ashley Gallegos 6/27/2014 8:50:00 AM		AF		:
Completed By: Ashley Gallegos 6/27/2014 2:02:37 PM		AJ.	•	
Reviewed By: Ar 06130114				-
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?	<u>Client</u>			
login		· .		
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	
12. Does paperwork match bottle labels?	Yes 🗹	No	for pH: (<2 or	>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? (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 i		
Person Notified: Date:			· _	
By Whom: Via:	eMail	Phone Fax	In Person	
Regarding.		and graph of the second se		
17. Additional remarks:	 	. .		
18. <u>Cooler Information</u>				
Cooler No. Temp C Condition Seal Intact Seal No	Seal Date	Signed By	- ¥	
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Page 1 of 1			· · ·	· ·

Client	Chain	-of-Cl	istody	Rec	ord	Turn-Around	l Time:	······································] [₽	IAL	.L. 8	EN	/IF	20	NI	ME	NT	AL	
						El Standard	i 🗆 Rush	۱ <u></u>				A	NA	LY	'SI	SL	A	BO	R/	\TC	R	1
TH	L has	Harm	-			Project Nam	18: Se 7 ant	e					www.	halle	nviror	men	tal.c	om				
Mailing	Address	5:	·····		<u></u>	5.	motok	cell # 11		49	01 H	lawki	ns NE	E - A	lbuai	ierau	ie. N	IM 87	7109			
PA	Por .	356 1	https al	m SA	24/	Project #		┫╼ ╷╷╷╌┚╝┇╶╌┊╻ ╞╼╼╴	1	Т	el 50)5-34	5-397	'5	Fax	505	-345	-410	7			
Phone	#: 5	15-6	31-57	4.00 65	C	1	r.							Ana	lysis	Req	ues	t				
email o	or Fax#:	ilmb	69700	001.0	DWA	Project Man	ager:			Σ <u></u>	Q				(†							Т
QAVQC	Package:								021	s on	MR			5	N ⁴	B's						
Z Star	ndard			4 (Full V	/alidation)	Tuda	Roberts	-	8) 8	ିର୍	ò			ž.	l d	L A	l					
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)(Type)]	7	1		······	Sample Terr	iperature: 5	1	-12		B (0	po	Z S			icide	A) 	¥			کا و
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Dale		Maux	Samp	le Req	luest 10	Type and #	Туре	HEAL NO.	Ĭ	Ш	7H 8	E E	a)		S S	811	809	2				B
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 24, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 yr Metals Cell #19

OrderNo.: 1406D18

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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,

andis

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1406D18 Date Reported: 7/24/2014

Ratch

Hall Environmental Analysis Laboratory, Inc.

 CLIENT: J & L Landfarm
 Client Sample ID: Cell #19 #1

 Project: Vadose Zone 5 yr Metals Cell #19
 Collection Date: 6/24/2014 6:02:00 AM

 Lab ID: 1406D18-001
 Matrix: SOIL
 Received Date: 6/27/2014 8:50:00 AM

 Analyses
 Result
 RL
 Oual Units
 DF Date Analyzed

	ittouit				Dute / Mary 200	Daten
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 11:38:21 AM	14020
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	13	mg/Kg	5	7/9/2014 8:32:12 AM	13972
Barium	370	0.20	mg/Kg	2	7/2/2014 4:28:44 PM	13972
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 2:09:38 PM	13972
Chromium	1.6	0.30	mg/Kg	1	7/2/2014 2:09:38 PM	13972
Copper	1.7	0.30	mg/Kg	1	7/2/2014 2:09:38 PM	13972
Iron	1300	10	mg/Kg	10	7/2/2014 4:29:51 PM	13972
Lead	ND	0.25	mg/Kg	1	7/2/2014 2:09:38 PM	13972
Manganese	22	0.10	mg/Kg	1	7/2/2014 2:09:38 PM	13972
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:09:38 PM	13972
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:09:38 PM	13972
Zinc	4.7	2.5	mg/Kg	1	7/2/2014 2:09:38 PM	13972

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	Е	Value above quantitation range	н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 6
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	Tuge Toro
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analys	sis Laborat	ory, Inc.	Analytical Report Lab Order 1406D18 Date Reported: 7/24/2014						
CLIENT: J & L Landfarm Project: Vadose Zone 5 yr Metals Cel Lab ID: 1406D18-002	ll #19 Matrix: S	SOIL	Client Sampl Collection I Received I	e ID: Ce Date: 6/2 Date: 6/2	ll #19 #2 4/2014 6:11:00 AM 7/2014 8:50:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 7471: MERCURY					Analys	t TES			
Mercury	ND	0.032	mg/Kg	1	7/3/2014 11:40:12 AM	14020			
EPA METHOD 6010B: SOIL METALS					Analys	ELS			
Arsenic	ND	. 13	mg/Kg	5	7/9/2014 8:37:11 AM	13972			
Barium	360	0.20	mg/Kg	2	7/2/2014 4:31:04 PM	13972			
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 2:11:01 PM	13972			
Chromium	1.5	0.30	mg/Kg	1	7/2/2014 2:11:01 PM	13972			
Copper	1.6	0.30	mg/Kg	1	7/2/2014 2:11:01 PM	13972			
Iron	1200	10	ˈmg/Kg	10	7/2/2014 4:32:10 PM	13972			
Lead	ND	0.25	mg/Kg	1	7/2/2014 2:11:01 PM	13972			
Manganese	18	0.10	mg/Kg	1	7/2/2014 2:11:01 PM	13972			
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:11:01 PM	13972			
Silver	ND	0.25	_ mg/Kg	1	7/2/2014 2:11:01 PM	13972			
Zinc	4.2	2.5	mg/Kg	1	7/2/2014 2:11:01 PM	13972			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	E	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Dags 2 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	rage 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			
			ļ		

Analytical Report Lab Order 1406D18 Date Reported: 7/24/2014

7/2/2014 2:12:25 PM

7/2/2014 2:12:25 PM

7/2/2014 2:12:25 PM

7/2/2014 2:12:25 PM

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13972

13972

13972

13972

Hall Environmental Analysis Laboratory, Inc.

Manganese

Selenium

Silver

Zinc

CLIENT: J & L Landfarm Client Sample ID: Cell #19 #3 **Project:** Vadose Zone 5 yr Metals Cell #19 Collection Date: 6/24/2014 6:19:00 AM Received Date: 6/27/2014 8:50:00 AM Lab ID: 1406D18-003 Matrix: SOIL Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 7471: MERCURY** Analyst: TES ND 0.032 mg/Kg 1 7/3/2014 11:41:55 AM 14020 Mercury EPA METHOD 6010B: SOIL METALS Analyst: ELS Arsenic ND 13 mg/Kg 5 7/9/2014 8:38:26 AM 13972 Barium 81 0.10 mg/Kg 1 7/2/2014 2:12:25 PM 13972 Cadmium ND 0.10 mg/Kg 7/2/2014 2:12:25 PM 13972 1 Chromium 6.0 0.30 mg/Kg 1 7/2/2014 2:12:25 PM 13972 0.30 Copper 3.1 mg/Kg 1 7/2/2014 2:12:25 PM 13972 6400 100 Iron mg/Kg 100 7/2/2014 4:41:10 PM 13972 Lead 0.74 0.25 mg/Kg 1 7/2/2014 2:12:25 PM 13972

0.10

2.5

0.25

2.5

mg/Kg

mg/Kg

mg/Kg

mg/Kg

72

ND

ND

21

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

 Qualifiers:
 *
 Value exceeds Maximum Contaminant Level.
 B

 E
 Value above quantitation range
 H

 J
 Analyte detected below quantitation limits
 ND

 O
 RSD is greater than RSDlimit
 P

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

D Not Detected at the Reporting Limit Page

P Sample pH greater than 2.

RL Reporting Detection Limit

Page 3 of 6

r ugo s

The second secon

CLIENT: J & L Landfarm Project: Vadose Zone 5 yr Metals Ce Lab ID: 1406D18-004	ell #19 Matrix: S	SOIL	Client Sample ID: Cell #19 #4 Collection Date: 6/24/2014 6:28:00 AM Received Date: 6/27/2014 8:50:00 AM					
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch		
EPA METHOD 7471: MERCURY					Analyst	: TES		
Mercury	ND	0.032	mg/Kg	.1	7/3/2014 11:43:38 AM	14020		
EPA METHOD 6010B: SOIL METALS	· ·				Analyst	ELS		
Arsenic		12	mg/Kg	5	7/9/2014 8:39:39 AM	13972		
Barium	76	0.10	mg/Kg	1	7/2/2014 2:13:48 PM	13972		
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 2:13:48 PM	13972		
Chromium	5.8	0.30	mg/Kg	1	7/2/2014 2:13:48 PM	13972		
Copper	2.9	0.30	mg/Kg	1	7/2/2014 2:13:48 PM	13972		
iron	6200	100	mg/Kg	100	7/2/2014 4:42:33 PM	13972		
Lead	0.92	0.25	mg/Kg	1	7/2/2014 2:13:48 PM	13972		
Manganese	72	0.10	mg/Kg	1	7/2/2014 2:13:48 PM	13972		
Selenium	ND	2.5	mg/Kg	1	7/2/2014 2:13:48 PM	13972		
Silver	ND	0.25	mg/Kg	1	7/2/2014 2:13:48 PM	13972		
Zinc	20	2.5	ma/Ka	1	7/2/2014 2:13:48 PM	13972		

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	¹ 1	В	Analyte detected in the associated Metho	d Blank
	Ε	Value above quantitation range	· . ·	Н	Holding times for preparation or analysis	exceeded
	J.	Analyte detected below quantitation limits	. *	ND	Not Detected at the Reporting Limit	Page 4 of 6
	0	RSD is greater than RSD limit		Р	Sample pH greater than 2.	rage 4 01 0
	R	RPD outside accepted recovery limits		RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			· · ·	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Date Reported: 7/24/2014

Lab Order 1406D18

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D18

24-Jul-14

J & L Landfarm **Client:**

Project: Vadose Zone 5 yr Metals Cell #19

Sample ID MB-14020 Client ID: PBS	SampType: MBLK Batch ID: 14020	TestCode: EPA Method RunNo: 19667	7471: Mercury	
Prep Date: 7/2/2014	Analysis Date: 7/3/2014	SeqNo: 570975	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Mercury	ND 0.033			
Sample ID LCS-14020	SampType: LCS	TestCode: EPA Method	7471: Mercury	
Sample ID LCS-14020 Client ID: LCSS	SampType: LCS Batch ID: 14020	TestCode: EPA Method RunNo: 19667	7471: Mercury	
Sample ID LCS-14020 Client ID: LCSS Prep Date: 7/2/2014	SampType: LCS Batch ID: 14020 Analysis Date: 7/3/2014	TestCode: EPA Method RunNo: 19667 SeqNo: 570976	7471: Mercury Units: mg/Kg	
Sample ID LCS-14020 Client ID: LCSS Prep Date: 7/2/2014 Analyte	SampType: LCS Batch ID: 14020 Analysis Date: 7/3/2014 Result PQL SPK value	TestCode: EPA Method RunNo: 19667 SeqNo: 570976 SPK Ref Val %REC LowLimit	7471: Mercury Units: mg/Kg HighLimit %RPD	RPDLimit Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- 0 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 в
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- **Reporting Detection Limit** RL

Page 5 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D18

24-Jul-14

Client:	J&LL:	andfarm			<u> </u>			· ·			
Project:	Vadose	Zone 5 yr N	/letals C	cell #19							
Sample ID	MB-13972	SampT	ype: ME	 BLK	 Tes	tCode: E	A Method	6010B: Soil I	Vetals		
Client ID:	PBS	Batch	n ID: 13	972	` F	RunNo: 1	9639				
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	. 8	SeqNo: 5	69716	Units: mg/K	g		
Analyte		Result	POL	SPK value	SPK Ref Val	%REC	i owl imit	Highl imit	%RPD	RPDI imit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10								
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30								
Iron		ND	1.0								
Lead		ND	0.25								
Manganese		ND	0.10								
Selenium		ND	2.5							•	
Silver	,	ND	0.25								
		ND	2.5								
Sample ID	LCS-13972	SampT	ype: LC	S	Tes	tCode: El	A Method	6010B: Soil I	Vetals		
Client ID:	LCSS	Batch	n ID: 13	972	F	RunNo: 19	9639				
Prep Date:	6/30/2014	Analysis D	ate: 7/	2/2014	· S	SeqNo: 56	69717	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		24	2.5	25.00	0	96.4	80	120			
Barium		24	0.10	25.00	0	97.3	80	120			
Cadmium		24	0.10	25.00	0	97.1	80	120			
Chromium		24	0.30	25.00	0	97.5	80	120		,	
Copper		26	0.30	25.00	0	103	80	120			
Iron		26	1.0	25.00	0	104	80	120			
Lead		23	0.25	25.00	. 0	92.0	80	120			
Manganese		24	0.10	25.00	0	97.0	80	120			
Selenium		23	2.5	25.00	0	90.4	80	120			
Silver		5.U 24	0.25	5.000	0	05.0	80	120		,	
ZIIIC		24	. 2.0	23.00	Ŭ,	. 90.9	00	120			
				•							
				.'		4		· · · ·			
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				i.							
	1										
							<u> </u>			_	<u></u>

- 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 greater than 2.

RL Reporting Detection Limit

Page 6 of 6

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Sample Log-In Check List Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com Client Name: **J & L LANDFARM** Work Order Number: 1406D18 RcptNo: 1 CS. OU/21 Received by/date: Logged By: Ashley Gallegos 6/27/2014 8:50:00 AM 6/27/2014 2:09:21 PM Completed By: Ashley Gallegos Ar 04/30/14 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? Client <u>Log In</u> NA 4. Was an attempt made to cool the samples? Yes 🖌 No 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🔽 No NA Yes 🗹 No 🗍 6. Sample(s) in proper container(s)? 7. Sufficient sample volume for indicated test(s)? Yes 🔽 No 8. Are samples (except VOA and ONG) properly preserved? Yes 🔽 No Yes No 🖌 NA 9. Was preservative added to bottles? 10.VOA vials have zero headspace? Yes 1 No 🗄 No VOA Vials 💙 ._] No 🖌 1, Were any sample containers received broken? Yes # 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 13. Are matrices correctly identified on Chain of Custody? Yes 🗹 1 14 is it clear what analyses were requested? Yes No Checked by: 15. Were all holding times able to be met? Yes \checkmark No (If no, notify customer for authorization.) Special Handling (if applicable) Yes 16. Was client notified of all discrepancies with this order? No NA 🖍

 Person Notified:
 Date:

 By Whom:
 Via:

 Regarding:

 Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	5.5	Good	Not Present			

Page 1 of 1

Client: <u>StL Landform</u> Mailing Address: <u>Po Box 356 Hobbs NM 88241</u> Phone #: 575-631-5765						Turn-Around Time: D Standard D Rush Project Name: Vodese Zowe 5 yr metals cell # 19 Project #:			HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request								Y						
email o QA/QC Z Star Accred D NEI D EDI	or Fax#: Package: Indard litation _AP D (Type) 		E 969	rel 4 (Fr mple F	Request ID	Project Ja Sample On Ice: Sample Conta Type a	ainer	reservative	D No 550 HEAL No.		TEX + MTBE + TMB's (8021)	TEX + MTBE + TPH (Gas only)	PH 8015B (GRO / DRO / MRO)	PH (Method 418.1)	AH's (8310 or 8270 SIMS)	CRA 8 Metals	lions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	81 Pesticides / 8082 PCB's	60B (VOA)	70 (Semi-VOA)	terts a		Rithhiae (V nr NI)
	0602 0611 0619 0628	Sail	Ce		19 #1 #7 #3 #4		gbss	ice	-001 -002 -003 -004			· · · · · · · · · · · · · · · · · · ·				X	A		82	82	× × × ×		
Date: 2/2/e Date:	Time: //30 Time:	Relinquish	ed by: M			Received <u>CC</u> Received	i by: Juna I by:	- Suuc	Date Time - 06/127/14/ 01 Date Time	850	Rem K	arks	Ba	cla			Fe	PL			7.5	 1 2	*

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this nessibility. Any subcontracted data will be aboratoriated on the subcontracted by aboratoriated on the subcontracted on the subcontracted by aboratoriated on the subcontracted by aboratoriated on the subcontracted

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 11, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 Yr Metals Cell #5

OrderNo.: 1406D30

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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 1406D30

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/11/2014

CLIENT: J & L Landfarm

Lab ID:

Project: Vadose Zone 5 Yr Metals Cell #5

1406D30-001

Client Sample ID: Cell #5 #1

Collection Date: 6/26/2014 7:50:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	: TES
Mercury	ND	0.032	mg/Kg	. 1	7/3/2014 11:45:22 AM	14020
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:35:09 AM	13999
Barium	130	0.097	mg/Kg	1	7/3/2014 12:10:12 PM	13999
Cadmium	ND	0.097	mg/Kg	1	7/2/2014 3:28:33 PM	13999
Chromium	3.1	0.29	mg/Kg	1	7/2/2014 3:28:33 PM	13999
Copper	0.76	0.29	mg/Kg	1	7/2/2014 3:28:33 PM	13999
Iron	2800	19	mg/Kg	20	7/3/2014 12:15:43 PM	13999
Lead	0.36	0.24	mg/Kg	1	7/2/2014 3:28:33 PM	13999
Manganese	27	0.097	mg/Kg	1	7/2/2014 3:28:33 PM	13999
Selenium	ND	2.4	mg/Kg	1	7/2/2014 3:28:33 PM	13999
Silver	ND	0.24	mg/Kg	1	7/2/2014 3:28:33 PM	13999
Zinc	6.0	2.4	mg/Kg	1	7/2/2014 3:28:33 PM	13999

Matrix: SOIL

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

Quanners.

* 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit
- Page 1 of 8

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1406D30

Date Reported: 7/11/2014

CLIENT: J & L Landfarm

v.,..

Project:Vadose Zone 5 Yr Metals Cell #5Lab ID:1406D30-002Matrix: SOIL

Client Sample ID: Cell #5 #2 Collection Date: 6/26/2014 7:58:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	: TES
Mercury	ND	0.031	mg/Kg	1	7/3/2014 11:47:10 AM	14020
EPA METHOD 6010B: SOIL METALS				<u>``</u>	Analyst	ELS
Arsenic	ND	13	mg/Kg	5	7/9/2014 9:42:37 AM	13999
Barium	61	0.10	mg/Kg	1	7/2/2014 3:32:58 PM	13999
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 3:32:58 PM	13999
Chromium	3.5	0.31	mg/Kg	1	7/2/2014 3:32:58 PM	13999
Copper	0.63	0.31	mg/Kg	. 1	7/2/2014 3:32:58 PM	13999
Iron	3100	20	mg/Kg	20	7/3/2014 12:22:07 PM	13999
Lead	0.35	0.25	mg/Kg	1	7/2/2014 3:32:58 PM	13999
Manganese	32	0.10	mg/Kg	1	7/2/2014 3:32:58 PM	13999
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:32:58 PM	13999
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:32:58 PM	13999
Zinc	6.7	2.5	mg/Kg	1	7/2/2014 3:32:58 PM	13999

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method Blank			
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded			
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2	of 8		
	O RSD is greater than RSDlimit		P	Sample pH greater than 2.			
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit			
	S	Spike Recovery outside accepted recovery limits		•			

Analytical Report

Lab Order 1406D30

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: Cell #5 #3 CLIENT: J & L Landfarm Vadose Zone 5 Yr Metals Cell #5 Collection Date: 6/26/2014 8:10:00 AM **Project:** 1406D30-003 Received Date: 6/27/2014 8:50:00 AM Lab ID: Matrix: SOIL

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.033	mg/Kg	1	7/3/2014 11:48:57 AM	14020
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	13	mg/Kg	5	7/9/2014 9:43:51 AM	13999
Barium	110	0.10	mg/Kg	1	7/2/2014 3:34:21 PM	13999
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 3:34:21 PM	13999
Chromium	3.2	0.30	mg/Kg	1	7/2/2014 3:34:21 PM	13999
Copper	0.83	0.30	mg/Kg	1	7/2/2014 3:34:21 PM	13999
Iron	2800	20	mg/Kg	20	7/3/2014 12:23:30 PM	13999
Lead	0.57	0.25	mg/Kg	1	7/2/2014 3:34:21 PM	13999
Manganese	26	0.10	mg/Kg	1	7/2/2014 3:34:21 PM	13999
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:34:21 PM	13999
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:34:21 PM	13999
Zinc	6.0	2.5	mg/Kg	1	7/2/2014 3:34:21 PM	13999

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 3 of 8
Analytical Report

Lab Order 1406D30

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #5 Lab ID:

1406D30-004 Matrix: SOIL Client Sample ID: Cell #5 #4 Collection Date: 6/26/2014 8:16:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.031	mg/Kg	1	7/3/2014 11:50:43 AM	14020
EPA METHOD 6010B: SOIL METALS	•	1 2 1 4	· :		Analyst	ELS
Arsenic	ND	12	mg/Kg	[`] 5	7/9/2014 9:45:05 AM	13999
Barium	76	0.095	mg/Kg	¹ 1	7/2/2014 3:40:49 PM	13999
Cadmium	ND [·]	0.095	mg/Kg	1	7/2/2014 3:40:49 PM	13999
Chromium	3.4	0.29	mg/Kg	1	7/2/2014 3:40:49 PM	13999
Copper	0.66	0.29	mg/Kg	່ 1	7/2/2014 3:40:49 PM	13999
Iron	3000	19	mg/Kg	20	7/3/2014 12:24:52 PM	13999
Lead	0.29	0.24	mg/Kg	1	7/2/2014 3:40:49 PM	13999
Manganese	35	0.095	mg/Kg	1	7/2/2014 3:40:49 PM	13999
Selenium	ND	2.4	mg/Kg	1	7/2/2014 3:40:49 PM	13999
Silver	ND	0.24	mg/Kg	1	7/2/2014 3:40:49 PM	13999
Zinc	6.9	2.4	mg/Kg	1	7/2/2014 3:40:49 PM	13999

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	Ŕ	Analyte detected in the associated Method Blank
	E	Value above quantitation range	Å. Å	Holding times for preparation or analysis exceeded
*	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 4 of 8
	0	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RĹ	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: J & L Landfarm Vada +-1 7. 5 X. ۸.4 .

Project:	Vac	lose Zone 5 Yr Metals Cell #5				
Sample ID	MB-14020	SampType: MBLK	TestCode: EPA Method	7471: Mercury		
Client ID:	PBS	Batch ID: 14020	RunNo: 19667			
Prep Date:	7/2/2014	Analysis Date: 7/3/2014	SeqNo: 570975	Units: mg/Kg		
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Mercury		ND 0.033				
Sample ID	LCS-14020	SampType: LCS	TestCode: EPA Method	7471: Mercury		
Client ID:	LCSS	Batch ID: 14020	RunNo: 19667			
Prep Date:	7/2/2014	Analysis Date: 7/3/2014	SeqNo: 570976	Units: mg/Kg		
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Mercury		0.17 0.033 0.1667	0 104 80	120		

Qualifiers:

* Value exceeds Maximum Contaminant Level.

(

- Ε Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- S 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.
- Р Sample pH greater than 2.
- **Reporting Detection Limit** RL

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11-Jul-14

WO#: 1406D30

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D30

11**-Jul-**14

Client:

J & L Landfarm

Sample ID	MB-13999	SampT	/pe: M	BLK	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	PBS	Batch	ID: 13	999	F	RunNo: 1	9639				
Prep Date:	7/1/2014	Analysis Da	ate: 7	/2/2014		SeqNo: 5	69724	69724 Units: mg/Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	···· ··· ··· ···	ND	2.5			<u>.</u>					
Barium		ND	0.10	•				•			
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30								
ron		ND	1.0		· · · · ·		1			•	
_ead		ND	0.25								
Vanganese		ND	0.10				1 - A				
Selenium		ND	2.5								
Silver		ND	0.25					•			
Zinc		ND	2.5	•							
Sample ID	LCS-13999	SampTy	/pe: LC		Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	LCSS	Batch	Batch ID: 13999			RunNo: 1	9639		-		
Prep Date:	7/1/2014	Analysis Da	ate: 7	/2/2014	5	SeqNo: 5	69725	Units: mg/k	٩		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		25	2.5	25.00	0	98.8	80	120			
Barium		24	0.10	25.00	0	96.0	80	120			
Cadmium		24	0.10	25.00	0	97.2	80	120			
Chromium		24	0.30	25.00	0	. 97.0	80	120			
Copper		25	0.30	25.00	0	98.9	80	120			
iron		26	1.0	25.00	0	.102	80	120			
Lead		23	0.25	25.00	0	93.0	80	120			
Manganese		24	0.10	25.00	0 ·	95.5	80	120			
Selenium		24	2.5	25.00	0	94.5	80	120			
Silver		4.9	0.25	5.000	0	99.0	80	120			
Zinc		25	2.5	25.00	0	98.6	80	120			
Sample ID	1406D30-001AM	S SampTy	pe: M	s ·	Tes	tCode: El	PÅ Method	6010B: Soil	Metals		
Client ID:	Cell #5 #1	Batch	ID: 13	999	۶.	RunNo: 1	9639				
Prep Date:	7/1/2014	Analysis Da	ite: 7/	2/2014	· S	SeqNo: 5	70069	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	• •	23	0.10	25.51	0	91.7	75	125			
Chromium		25	0.31	25.51	3.137	87.6	75	125			
		25	0.31	25.51	0.7554	94.6	75	125			
Copper		• •	0.26	25.51	0.3624	82.7	75	125			
Copper Lead		21	0.20								
Copper Lead Manganese		21 49	0.20	25.51	27.40	84.7	75	125			

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

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2.

RL Reporting Detection Limit

Page 6 of 8

QC SUMMARY REPORT

Hall	Enviro	nmental	Analysis	Laboratory,	Inc.
			•		

Client:	J & L Lar	ndfarm													
Project:	Vadose Z	lone 5 Yr N	Metals (Cell #5											
Sample ID	1406D30-001AMS	SampT	ype: MS		Tes	tCode: E	PA Method	6010B: Soil	Metals						
Client ID:	Cell #5 #1	Batch	n ID: 13	999	Ē	RunNo: 1	9639								
Prep Date:	7/1/2014	Analysis D	ate: 7 /	2/2014	5	SeqNo: 5	70069	Units: mg/M	g						
Analyte		Result	PQL	SPK value	alue SPK Ref Val %REC LowLimit			HighLimit	%RPD	RPDLimit	Qual				
Silver		4.8	0.26	5.102	0	94.4	75	125							
Zinc		27	2.6	25.51	5.950	83.2		125							
Sample ID	1406D30-001AMS	SD SampType: MSD TestCode: EPA Metho					PA Method	od 6010B: Soil Metals							
Client ID:	Cell #5 #1	Batch ID: 13999 RunNo: 19639				9639	i								
Prep Date:	7/1/2014	Analysis D	ate: 7/	2/2014	SeqNo: 570070			Units: mg/H	g						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Cadmium		23	0.10	25.26	0	91.8	75	125	0.919	20					
Chromium		26	0.30	25.26	3.137	88.6	75	125	0.184	20					
Copper		25	0.30	25.26	0.7554	95.3	75	125	0.223	20					
Lead		21	0.25	25.26	0.3624	83.0	75	125	0.622	20					
Manganese		49	0.10	. 25.26	27.40	84.2	75	125	0.719	20					
Selenium		20	2.5	25.26	0	81.1	75	125	0.136	20					
Silver		4.8	0.25	5.051	0	95.5	75	125	0.205	20					
Zinc		27	2.5	25.26	5.950	83.9	75	125	0.161	20					
Sample ID	1406D30-001AMS	SampT	ype: MS		Tes	tCode: E	PA Method	6010B: Soll	Metals						
Client ID:	Cell #5 #1	Batch	n ID: 13	999	F	RunNo: 1	9675								
Prep Date:	7/1/2014	Analysis D	ate: 7/	3/2014	· . 5	SegNo: 5	71191	Units: mg/H	(g						
Analyte	-	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Barium		130	0.10	25.51	135.0	-19.5	75	125			S				
Sample ID	1406D30-001AMS	D SampT	ype: MS	 SD	 Tes	tCode: E	PA Method	6010B: Soll	Metals						
Client ID:	Cell #5 #1	Batch	n ID: 13	999	F	RunNo: 1	9675								
Prep Date:	7/1/2014	Analysis D	ate: 7/	3/2014		SeqNo: 5	71192	Units: mg/k	g						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Barium		120	0.10	25.26	135.0	-43.6	75	125	4.77	20	S				
Sample ID	1406D30-001AMS	SampT	ype: MS	De: MS TestCode: EPA Method 6010B: Soil Metals											
Client ID:	Cell #5 #1	Batch	n ID: 13	8999 RunNo: 19760											
Prep Date:	7/1/2014	Analysis D	ate: 7/	9/2014	S	SeqNo: 5	74119	Units: mg/k	g						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Arsenic		26	13	25.51	0	103	75	125							

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 greater than 2.
- RL Reporting Detection Limit

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1406D30 11-Jul-14

WO#:

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D30

11-Jul-14

Client: J & L Landfarm

Project:	Vadose Zone 5	Yr Metals Cell #5
rojeen	. 44050 20110 5	

Sample ID Client ID:	1406D30-001AMSI Cell #5 #1	D SampT Batch	ype: MS ID: 13	SD 999	Tes	tCode: E RunNo: 1	PA Method 9760	6010B: Soil	Metals		
Prep Date:	7/1/2014	Analysis D	ate: 7/	9/2014	:	SeqNo: 5	74120	Units: mg/h	٢g	ŕ.	
Analyte	·······	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
rsenic		28	13	25.26	0	110	75	125	6.07	20	
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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 greater than 2.
- RL Reporting Detection Limit

Page 8 of 8

uBe e er e

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu Albu TEL: 505-345-3975 Website: www.hal	Analysis 4901 querque FAX: 50 llenviroi	: Laboratory Hawkins NE 2, NM 87109 05-345-4107 nmental.com	Sample Log-In Check List									
Client Name: J & L LANDFARM	Work Order Number:	14060	030		1								
Received by/date:	00/27/14												
Logged By: Celina Sessa	6/27/2014 8:50:00 AM		- a	lum	- 5	man							
Completed By: Celina Sessa	6/27/2014 3:29:23 PM		1	lin	. 5								
Reviewed By: A- D/0/3	50114		~		_ /								
Chain of Custody	1 /												
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?		<u>FedE</u>	<u>x</u>										
Log In													
4. Was an attempt made to cool the sample	les?	Yes		No		na 🗆							
5. Were all samples received at a temperat	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 te	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 🗌							
10. VOA vials have zero headspace?		Yes		No		No VOA Vials 🗹							
11. Were any sample containers received b	roken?	Yes		No		# of preserved	<u> </u>						
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes		No		bottles checked for pH:	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	?	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.V	Vas client notified of all d	iscrepancies with this order?	Yes 🗌	No 🗌	NA 🗹
ſ	Person Notified:		Date		
	By Whom:	,	Via: 🗌 eMail 🚺	Phone 🗌 Fax 📋	In Person
	Regarding:				
	Client Instructions:				

17. Additional remarks:

18. Cooler Information

	Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By	ĺ
1	1	5.5	Good	Yes	1			

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Page 1 of 1

Client:	Chain	-of-Cu	ustody Record	Turn-Around	Time: I	1				H/ Ai	ALL VAI	. E LY:	NV SI:	/IF 5 L	OS AI	NI BO	ME R/	NT \TC	AL DR'	, Y
<u> </u>	<u>L her</u>	stam		Project Nam	e: De zon	e _			<i></i>	w	ww.ha	ilen	viron	men	tal.c	om				
Mailing) Addres:	s:		540	metals	3 Cell + 5	4901 Hawkins NE - Albuquerque, NM 87109													
<u><u>Po</u></u>	Box	356 f	6665 N/m 8824/	Project #	• –		Tel. 505-345-3975 Fax 505-345-4107													
Phone	<u>#: 5</u>	15-6	31-5765				Analysis Request													
email d	or Fax#:	jlæbi	1097 (gol. com	Project Manager:			Ę	<u>À</u>	<u>S</u>				ð							
QAVQC	Package:			TIDI			802	as o	N		(S		S ⁴ S	G	ĺ					
A Star	Accreditation)udy	Kober 15	·	B's (의	N N N	Í	SIN		P, P(32 P						
	NELAP Other			Sampler:	ANOS	New Street to Ave	Ă	Ē	5	-	3270	1	N	/ 80						E
	D (Type)			Sample Tem	perature: 5	50	н Ш	ц,	R G R	44		als	1 g	des		٩ ٥				o ∠
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 14003030	BTEX + MTE	BTEX + MTE	TPH 8015B	TPH (Method	PAH's (8310	RCRA 8 Met	Anions (F,CI	8081 Pestici	8260B (VOA	8270 (Semi- [,]	metals *	,		Air Bubbles (
6261	0750	soil	Cell # 5 # 1	1 400 0/19	ice	-001											x	-		1
1	0158		#1			-002					1						r			+
	0810		#3			-003	<u>†</u> †		-+	-†-	+	†	<u> </u>				r	+	+	┿
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Date:	Time:	Relinquish	ed by:	Received by:	- Suna	Date Time - 06/21/14 0857	Rem	arks:	<u> </u> ;	l		l	L	L]	L	L]	<u> </u>			<u> </u>
Date:	Time:	Relinquiste	ed by:	Received by:		Date Time	54 *	ile B	14 161	12 .Cr	mei Cu	ials Ge	P	61	۲ NDJ	ta	Se	Δ.:	21	r

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 11, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765

FAX

RE: Vadose Zone 5 Yr Metals Cell #6

OrderNo.: 1406D32

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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,

Inder

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1406D32 Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #6

Client Sample ID: Cell #6 #1 Collection Date: 6/26/2014 8:35:00 AM Received Date: 6/27/2014 8:50:00 AM

Lab ID: 1406D32-001	Matrix: S	SOIL	Received I	Received Date: 6/27/2014 8:50:00 AM					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 7471: MERCURY					Analyst	TES			
Mercury	ND	0.032	mg/Kg	1	7/3/2014 11:52:29 AM	14020			
EPA METHOD 6010B: SOIL METALS					Analyst	ELS			
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 3:42:13 PM	13999			
Barium	61	0.099	mg/Kg	1	7/2/2014 3:42:13 PM	13999			
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 3:42:13 PM	13999			
Chromium	4.0	0.30	mg/Kg	1	7/2/2014 3:42:13 PM	13999			
Copper	1.2	0.30	mg/Kg	1	7/2/2014 3:42:13 PM	13999			
Iron	3700	20	mg/Kg	20	7/3/2014 12:26:13 PM	13999			
Lead	ND	5.0	mg/Kg	20	7/3/2014 12:26:13 PM	13999			
Manganese	44	0.099	mg/Kg	1	7/2/2014 3:42:13 PM	13999			
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:42:13 PM	13999			
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:42:13 PM	13999			
Zinc	8.0	2.5	mg/Kg	1	7/2/2014 3:42:13 PM	13999			

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 1 of 6

Hall Environmental Analysi	s Laborat	ory, Inc.			Lab Order 1406D32 Date Reported: 7/11/202	14		
CLIENT: J & L Landfarm Project: Vadose Zone 5 Yr Metals Cell Lab ID: 1406D32-002	#6 Matrix: S	SOIL	Client Sample ID: Cell #6 #2 Collection Date: 6/26/2014 8:42:00 AM Received Date: 6/27/2014 8:50:00 AM					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 7471: MERCURY					Analyst	TES		
Mercury	· ND	0.032	mg/Kg	1	7/3/2014 11:54:16 AM	14020		
EPA METHOD 6010B: SOIL METALS					Analyst	ELS		
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 3:43:36 PM	13999		
Barium	160	0.099	mg/Kg	. 1	7/2/2014 3:43:36 PM	13999		
Cadmium	ND	0.099	mg/Kg	1	7/2/2014 3:43:36 PM	13999		
Chromium	3.7	0.30	mg/Kg	1	7/2/2014 3:43:36 PM	13999		
Copper	0.91	0.30	mg/Kg	1	7/2/2014 3:43:36 PM	13999		
Iron	3100	20	mg/Kg	20	7/3/2014 12:27:36 PM	13999		
Lead	ND	5.0	mg/Kg	20	7/3/2014 12:27:36 PM	13999		
Manganese	26	0.099	mg/Kg	1	7/2/2014 3:43:36 PM	13999		
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:43:36 PM	13999		
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:43:36 PM	13999		
Zinc	7.0	ໍ 2.5	mg/Kg	1	7/2/2014 3:43:36 PM	13999		

Analytical Report

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ŃD	Not Detected at the Reporting Limit	Dece 2 of 6
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	Page 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report Lab Order 1406D32

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Client Sample ID: Cell #6 #3 **Project:** Vadose Zone 5 Yr Metals Cell #6 Collection Date: 6/26/2014 8:55:00 AM Received Date: 6/27/2014 8:50:00 AM 1406D32-003 Lab ID: Matrix: SOIL **RL** Qual Units Analyses Result **DF** Date Analyzed Batch

		<u> </u>				
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.033	mg/Kg	1	7/3/2014 11:59:47 AM	14020
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	7/2/2014 3:44:59 PM	13999
Barium	63	0.10	mg/Kg	1	7/2/2014 3:44:59 PM	13999
Cadmium	ND	0.10	mg/Kg	1	7/2/2014 3:44:59 PM	13999
Chromium	4.1	0.31	mg/Kg	1	7/2/2014 3:44:59 PM	13999
Copper	1.4	0.31	mg/Kg	1	7/2/2014 3:44:59 PM	13999
Iron	3800	20	mg/Kg	20	7/3/2014 12:28:56 PM	13999
Lead	ND	5.1	mg/Kg	20	7/3/2014 12:28:56 PM	13999
Manganese	44	0.10	mg/Kg	1	7/2/2014 3:44:59 PM	13999
Selenium	ND	2.5	mg/Kg	1	7/2/2014 3:44:59 PM	13999
Silver	ND	0.25	mg/Kg	1	7/2/2014 3:44:59 PM	13999
Zinc	8.7	2.5	mg/Kg	1	7/2/2014 3:44:59 PM	13999

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
-	Е	Value above quantitation range	н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Daga
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	rage
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	•		

Page 3 of 6

Analytical Report Lab Order 1406D32

Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #6

Lab ID: 1406D32-004 Matrix: SOIL

Client Sample ID: Cell #6 #4 Collection Date: 6/26/2014 9:11:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 12:01:34 PM	14020
EPA METHOD 6010B: SOIL METALS	•	· · · ·	•		Analyst	ELS
Arsenic	ND	2.4	mg/Kg	1	7/2/2014 3:46:23 PM	13999
Barium	180	0.096	mg/Kg	1	7/2/2014 3:46:23 PM	13999
Cadmium	ND	0.096	mg/Kg	· 1	7/2/2014 3:46:23 PM	13999
Chromium	3.9	0.29	mg/Kg	1	7/2/2014 3:46:23 PM	13999
Copper	1.1	0.29	mg/Kg ·	- 1	7/2/2014 3:46:23 PM	13999
iron	3200	19	mg/Kg	20	7/3/2014 12:30:20 PM	13999
Lead	ND	4.8	mg/Kg	20	7/3/2014 12:30:20 PM	13999
Manganese	31	0.096	mg/Kg	1	7/2/2014 3:46:23 PM	13999
Selenium	ND	2.4	mg/Kg	1	7/2/2014 3:46:23 PM	13999
Silver	ND	0.24	mg/Kg	1	7/2/2014 3:46:23 PM	13999
Zinc	7.3	2.4	mg/Kg	1	7/2/2014 3:46:23 PM	13999

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 4 of 6
	0	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		. · · ·
			1	

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D32

11**-Jul-**14

Project:	Vadose Zone 5 Yr Metals Cell #6
Client:	J & L Landiarm

Sample ID MB-14020	SampType: MBLK	TestCode: EPA Method 747	71: Mercury
Client ID: PBS	Batch ID: 14020	RunNo: 19667	
Prep Date: 7/2/2014	Analysis Date: 7/3/2014	SeqNo: 570975 Ur	nits: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit H	lighLimit %RPD RPDLimit Qual
Mercury	ND 0.033		
Sample ID LCS-14020	SampType: LCS	TestCode: EPA Method 747	/1: Mercury
Sample ID LCS-14020 Client ID: LCSS	SampType: LCS Batch ID: 14020	TestCode: EPA Method 747 RunNo: 19667	/1: Mercury
Sample ID LCS-14020 Client ID: LCSS Prep Date: 7/2/2014	SampType: LCS Batch ID: 14020 Analysis Date: 7/3/2014	TestCode: EPA Method 747 RunNo: 19667 SeqNo: 570976 Un	nits: mg/Kg
Sample ID LCS-14020 Client ID: LCSS Prep Date: 7/2/2014 Analyte	SampType: LCS Batch ID: 14020 Analysis Date: 7/3/2014 Result PQL SPK value S	TestCode: EPA Method 747 RunNo: 19667 SeqNo: 570976 Un SPK Ref Val %REC LowLimit H	/1: Mercury hits: mg/Kg lighLimit / %RPD 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D32

11**-Jul**-14

Client: J & L Landfarm

Project:	Vado	ose Zone 5 Yr l	Metals (Cell #6				 			•
Sample ID	MB-13999	SampT	ype: Mi	BLK	Tes	stCode: E	PA Method	6010B: Soil	Metals		
Client ID:	PBS	Batcl	n ID: 13	999	F	RunNo: 1	9639	. ,			
Prep Date:	7/1/2014	Analysis E	ate: 7/	2/2014	:	SeqNo: 5	69724	Units: mg/H	٢g		•
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10							·	
Cadmium		ND	0.10						•		
Chromium		ND	0.30								
Copper		ND	0.30								
Iron		ND	1.0								
_ead		ND	0.25								
Manganese		ND	0.10								
Selenium		ND	2.5						• •		
Silver		ND	0.25								
Zinc		ND	2.5				<u> </u>				
Sample ID	LCS-13999	SampT	ype: LC	s	Tes	stCode: E	PA Method	6010B: Soil	Metals	· · · ·	
Client ID:	LCSS	Batcl	n ID: 13	999	F	RunNo: 1	9639			•	
Prep Date:	7/1/2014	Analysis E	ate: 7/	2/2014	5	SeqNo: 5	69725	Units: mg/H	٢g	,	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		25	2.5	25.00	0	98.8	80	120			
Barium		24	0.10	25.00	0	96.0	80	120			
Cadmium		24	0.10	25.00	0	97.2	80	120			
Chromium		24	0.30	25.00	0	97.0	80	120			
Copper		25	0.30	25.00	0	98.9	80	120			
ron		26	1.0	25.00	0	102	80	120			
_ead		23	0.25	25.00	0	93.0	80	120			
Manganese		24	0.10	25.00	0	95.5	80	120			
Selenium		24	2.5	25.00	0	94.5	80	120			
Silver		4.9	0.25	5.000	0	99.0	80	120			•
Zinc		25	2.5	25.00	0_	98.6	80	120	•		
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						•					

- 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 greater than 2.
- RL Reporting Detection Limit

Page 6 of 6

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HALL Hall I ENVIRONMENTAL ANALYSIS LABORATORY TEL: We	Environmental Analysis L 4901 Ha Albuquerque, T 505-345-3975 FAX: 505- bsité: www.hallenvironm	aboratory wkins NE NM 87109 Sar -345-4107 wental.com	nple Log-In Cł	neck List
Client Name: J & L LANDFARM Work O	rder Number: 1406D3	2	RcptNo:	1
Received by/date: CS 0/02	7/14		· · · · · · · · · · · · · · · · · · ·	
Logged By: Celina Sessa 6/27/2014	8:50:00 AM	Celim	Simo	
Completed By: Celina Sessa 6/27/2014	3:32:30 PM	Celin.	Sime	1
Reviewed By: DG 30/14	· . /			
Chain of Custody			· · · · · · · · · · · · · · · · · · ·	
1. Custody seals intact on sample bottles?	Yes] No □	Not Present V	
2. Is Chain of Custody complete?	Yes 🕨	No 🗆	Not Present	
3. How was the sample delivered?	FedEx			N
Log In			、 .	
4. Was an attempt made to cool the samples?	Yes	2 No 🗆) NA 🗌	
5. Were all samples received at a temperature of >0° C t	to 6.0°C Yes 🗹	No 🗆	NA 🗌	
6. Sample(s) in proper container(s)?	Yes	2 No 🗆]	
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗌	· · ·	
8. Are samples (except VOA and ONG) properly preserve	d? Yes 🗤	2 No 🗆	l	
9. Was preservative added to bottles?	Yes [] No 🗹		
10.VOA vials have zero headspace?	Yes] No 🗆	No VOA Vials 🗹	
11. Were any sample containers received broken?	Yes	No 🗹		
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes	0 No 🗆	# of preserved bottles checked for pH: (<2 or	r >12 unless noted)
13. Are matrices correctly Identified on Chain of Custody?	Yes 🗹	No L	Adjusted?	
14. Is it clear what analyses were requested?	Yes M	2 No L. 2 No L	Checked by:	
(If no, notify customer for authorization.)	Tes M			
Special Handling (if applicable)	Mee [
]
Person Notified: By Whom: Recarding:	Date∦ · Via: □ eMail	🗌 Phone 🗌 Fa	ix 🗌 in Person	
Client Instructions;]
17. Additional remarks:]
18. <u>Cooler Information</u> ↓ Cooler No ↓ Temp ℃ ↓ Condition ↓ Seal Intact ↓	Seal No Seal Date	Signed Bv		
1 5.5 Good Yes				. •
Page 1 of 1	<u></u>		- <u></u>	

Client:	n-of-Cu	ustody Record	Turn-Around	Time:	L <u></u>				HA Ar	LL IAL	. E	NV 5IS	/IF 5 L	RO .AE	NN 30	1E RA	NT/	AL IR)	ſ
	with farm		Vada	se zon	2	1			WV	/w.ha	llenv	vironı	ment	tal.co	m				
		till and	Broject #	metals	Cel1+0	-	49()1 Ha	wkins	NE -	· Alt	ouque	erqu	e, Ni	M 87	109			
PO Box	356 +	665 NM 88241					Te	1. 505	-345-	3975		ax	505-	345-	4107	7			
Phone #: D	17-6	21-5765 4970 al com	Project Mana				5	6		1 7			Rey	uesu					
	- <u>)1120-</u>	121 / 10/ 401 · CUM		ger.		5	Ē	R ACK				so	3's						
Standard	3.	Level 4 (Full Validation)	Tude	Raborts	-	8)	Gas	10		IMS		PQ,	ЪС						
Accreditation		······	Sampler:	liste		Щ.	H	HO I		20 S		10 ₂ ,	082						
	D Othe	er	On Ice:	C Yes	DNo	F F	두 +	8	8 2	82	6	S S	s / 8		(A		ł		or
EDD (Type)		Sample Tem	perature: 5	<u>5°</u>	巴	Ш	0	b B	0 0	etals	Ň	cide	R	N-	×			Z
Date Time	e Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	3TEX + M	3TEX + M	TPH 8015E	TPH (Meth EDB (Meth	PAH's (831	RCRA 8 M	Anions (F,(3081 Pesti	3260B (VO	3270 (Sem	metals .			Air Bubble
6/26/ 083	5 soil	Coll # 6 # 1	1 100 0/195	ice	-001			<u> </u>	·		—			Ĩ		X	-+-	-	\uparrow
084	27	#2	1 The		-002											r			+
085	5	#2			-003					+						r		-+	+-
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Date: Time:	Relinquish	Berly:	Received by:	Sum	Date Time . 06/27/14 0850	Ren	narks	5: • •	•	_	~^								
Date: Time:	Relinquis	ed by:	Received by:		Date Time	A:	ule B	ed acd	12 .Cr	me'í Cu	iels Ge	. Pl		NNŧ	ta	Se	A n :	ZN	,

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 15, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 Yr Metals Cell #8

OrderNo.: 1406D34

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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 1406D34

7/3/2014 12:31:41 PM

7/3/2014 1:01:05 PM

7/3/2014 12:31:41 PM

7/3/2014 12:31:41 PM

7/8/2014 12:25:05 PM

7/3/2014 12:31:41 PM

7/3/2014 12:31:41 PM

Date Reported: 7/15/2014

14031

14031

14031

14031

14031

14031

14031

14031

Hall Environmental Analysis Laboratory, Inc.

Chromium

Manganese

Selenium

Copper

Iron

Lead

Silver

Zinc

CLIENT: J & L Landfarm Client Sample ID: Cell #8 #1 **Project:** Vadose Zone 5 Yr Metals Cell #8 Collection Date: 6/26/2014 9:30:00 AM 1406D34-001 Received Date: 6/27/2014 8:50:00 AM Lab ID: Matrix: SOIL Analyses Result **RL** Oual Units **DF** Date Analyzed Batch **EPA METHOD 7471: MERCURY** Analyst: TES 7/3/2014 12:03:23 PM Mercury ND 0.032 mg/Kg 1 14020 EPA METHOD 6010B: SOIL METALS Analyst: ELS ND 12 5 7/9/2014 9:51:11 AM 14031 Arsenic mg/Kg Barium 140 0.097 mg/Kg 1 7/3/2014 12:31:41 PM 14031 0.097 Cadmium ND mg/Kg 1 7/3/2014 12:31:41 PM 14031 7/3/2014 12:31:41 PM

0.29

0.29

48

24

2.4

0.24

2.4

0.097

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

1

1

50

1

1

1

1

1

4.5

2.4

ND

67

ND

ND

12

4900

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 1 of 8

Hall Environmental Analys	is Laborat	ory, Inc.		•	Analytical Report Lab Order 1406D34 Date Reported: 7/15/20	14
CLIENT: J & L Landfarm Project: Vadose Zone 5 Yr Metals Cell Lab ID: 1406D34-002	#8 Matrix: S	SOIL	Client Sampl Collection I Received I	e ID: Ce Date: 6/2 Date: 6/2	11 #8 #2 26/2014 9:37:00 AM 27/2014 8:50:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analysi	t: TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 12:08:51 PM	14020
EPA METHOD 6010B: SOIL METALS					Analysi	t: ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:58:42 AM	14031
Barium	150	0.096	mg/Kg	1	7/3/2014 12:42:21 PM	14031
Cadmium	ND	0.096	mg/Kg	1	7/3/2014 12:42:21 PM	14031
Chromium	2.9	0.29	mg/Kg	1	7/3/2014 12:42:21 PM	14031
Copper	1.1	0.29	mg/Kg	1	7/3/2014 12:42:21 PM	14031
Iron	2500	19	mg/Kg	20	7/3/2014 1:02:28 PM	14031
Lead	ND	24	mg/Kg	1	7/3/2014 12:42:21 PM	14031
Manganese	32	0.096	mg/Kg	1	7/3/2014 12:42:21 PM	14031
Selenium	ND	2.4	mg/Kg	1	7/3/2014 12:42:21 PM	14031
Silver	ND	0.24	mg/Kg	1	7/3/2014 12:42:21 PM	14031
Zinc	6.0	24	ma/Ka	1	7/3/2014 12:42:21 PM	14031

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 8
	0	RSD is greater than RSDlimit	P	Sample pH greater than 2	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	· · ·		

Analytical Report Lab Order 1406D34

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #8

Date Reported: 7/15/2014 Client Sample ID: Cell #8 #3 Collection Date: 6/26/2014 9:48:00 AM

Lab ID: 1406D34-003	Matrix: S	SOIL	Received	Date: 6/2	7/2014 8:50:00 AM	
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst:	TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 12:10:41 PM	14020
EPA METHOD 6010B: SOIL METALS					Analyst:	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 9:59:55 AM	14031
Barium	110	0.099	mg/Kg	1	7/3/2014 12:43:45 PM	14031
Cadmium	ND	0.099	mg/Kg	1	7/3/2014 12:43:45 PM	14031
Chromium	5.1	0.30	mg/Kg	1	7/3/2014 12:43:45 PM	14031
Copper	2.6	0.30	mg/Kg	1	7/3/2014 12:43:45 PM	14031
Iron	5700	50	mg/Kg	50	7/3/2014 1:03:49 PM	14031
Lead	ND	25	mg/Kg	1	7/3/2014 12:43:45 PM	14031
Manganese	74	0.099	mg/Kg	1	7/3/2014 12:43:45 PM	14031
Selenium	ND	2.5	mg/Kg	1	7/3/2014 12:43:45 PM	14031
Silver	ND	0.25	mg/Kg	1	7/3/2014 12:43:45 PM	14031
Zinc	14	2.5	mg/Kg	1	7/3/2014 12:43:45 PM	14031

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	d Blank
	Ε	Value above quantitation range	н	Holding times for preparation or analysis	s exceede
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Ρασ
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 45
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	

Spike Recovery outside accepted recovery limits S

alysis exceeded

Reporting Detection Limit

it Page 3 of 8

Analytical Report Lab Order 1406D34

Date Reported: 7/15/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L LandfarmClient Sample ID: Cell #8 #4Project: Vadose Zone 5 Yr Metals Cell #8Collection Date: 6/26/2014 10:02:00 AMLab ID: 1406D34-004Matrix: SOILReceived Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.033	mg/Kg	1	7/3/2014 12:12:24 PM	14020
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 10:01:09 AM	14031
Barium	180	0.097	mg/Kg	1	7/3/2014 12:45:07 PM	14031
Cadmium	ND	0.097	mg/Kg	`1	7/3/2014 12:45:07 PM	14031
Chromium	2.5	0.29	mg/Kg	1	7/3/2014 12:45:07 PM	14031
Copper	1.1	0.29	mg/Kg	1	7/3/2014 12:45:07 PM	14031
Iron	2000	19	mg/Kg	20	7/3/2014 1:05:13 PM	14031
Lead	ND .	24	mg/Kg	1	7/3/2014 12:45:07 PM	14031
Manganese	27	0.097	mg/Kg	. 1	7/3/2014 12:45:07 PM	14031
Selenium	ND	2.4	mg/Kg	1	7/3/2014 12:45:07 PM	14031
Silver	ND	0.24	mg/Kg	1	7/3/2014 12:45:07 PM	14031
Zinc	5.5	2.4	mg/Kg	1	7/3/2014 12:45:07 PM	14031

Qualifiers:	*	Value exceeds Maximum Contaminant Level.		В	Analyte detected in the associated Metho	d Blank
	Ε	Value above quantitation range	. 11	н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits		ND	Not Detected at the Reporting Limit	Page 4 of 8
	0	RSD is greater than RSD limit	1.	Р	Sample pH greater than 2.	1 460 + 01 0
	R	RPD outside accepted recovery limits		RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			1997 - 1 997 - 1 99	
				1		

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D34

15-Jul-14

Client: J&L Landfarm

Project:	Vadose Z	one 5 Yr N	letals (Cell #8							
Sample ID	MB-14020	SampT	/pe: Mi	BLK	Tes	tCode: E	PA Method	7471: Mercu	iry		
Client ID:	PBS	Batch	ID: 14	020	F	lunNo: 1	9667				
Prep Date:	7/2/2014	Analysis Da	ate: 7/	/3/2014	S	eqNo: 5	70975	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.033								
Sample ID	LCS-14020	SampT	pe: LC	 S	Tes	tCode: E	PA Method	7471: Mercu	iry		
Client ID:	LCSS	Batch	ID: 14	020	F	RunNo: 1	9667				
Prep Date:	7/2/2014	Analysis D	ate: 7/	/3/2014	S	eqNo: 5	70976	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.17	0.033	0.1667	0	104	80	120			
Sample ID	1406D34-001AMS	SampT	/pe: M	s	Tes	tCode: E	PA Method	7471: Mercu	гу		
Client ID:	Cell #8 #1	Batch	ID: 14	020	F	lunNo: 1	9667				
Prep Date:	7/2/2014	Analysis Da	ate: 7/	/3/2014	S	eqNo: 5	70998	Units: mg/H	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.14	0.032	0.1611	0.009056	79.2	75	125			
Sample ID	1406D34-001AMS	D SampT	/pe: M	SD	Tes	tCode: E	PA Method	7471: Mercu	гу		
Client ID:	Celi #8 #1	Batch	ID: 14	020	ਜ	tunNo: 1	9667				
Prep Date:	7/2/2014	Analysis Da	ate: 7/	/3/2014	S	eqNo: 5	70999	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.14	0.032	0.1619	0.009056	78.3	75	125	0.526	20	

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 greater than 2.
- RL Reporting Detection Limit

Page 5 of 8

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D34

15-Jul-14

J & L Landfarm Client:

Project:	Vadose Z	Lone 5 Yr N	Aetals (Cell #8							
Sample ID	LCS-14031	SampT	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	LCSS	Batch	ID: 14	031	F	RunNo: 1	9675				
Prep Date:	7/2/2014	Analysis D	ate: 7/	/3/2014	, ¹ S	SeqNo: 5	71138	Units: mg/H	٩		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		23	2.5	25.00	0	93.6	80	120			
Barium		22	0.10	25.00	0	89.5	80	120			
Cadmium		23	0.10	25.00	0	90.2	80	120			
Chromium		23	0.30	25.00	0	90.0	80	120			
Copper		23	0.30	25.00	0	93.0	80	120			
ron .		24	1.0	25.00	· 0 · ·	96.3	80	120			в
ead		22	0.25	25.00	0	87.5	80	120			
Manganese		22	0.10	25.00	. 0	89.3	80	120			
Selenium		22	2.5	25.00	0	86.8	80	120	•		
Silver		4.7	0.25	5.000	0	93.8	80	120			
Zinc		22	2.5	25.00	0	89.9	80	120			
Sample ID	MB-14031	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	PBS	Batch	ID: 14	031	F	RunNo: 1	9675				
Prep Date:	7/2/2014	Analysis D	ate: 7/	/3/2014	5	SeqNo: 5	71141	Units: mg/k	٢g		
Analyte	·	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
rseni¢		ND	2.5								
Barium		ND	0.10	,							
Cadmium		ND	0.10	· • •	`						
Chromium		ND	0.30		an a tha a c						
Copper		ND	0.30		:						
ron		1.1	1.0					•			
ead		ND	0.25			·		•			
Manganese		ND	0.10								
selenium		ND	2.5		- •			·			
bilver 		ND	0.25				ļ				•
		ND	2.5				<u> </u>				
Sample ID	1406D34-001AMS	SampT	ype: MS	5	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	Cell #8 #1	Batch	ID: 14	031	Ŕ	tunNo: 1	9675				
Prep Date:	7/2/2014	Analysis D	ate: 7/	3/2014	.) S	SeqNo: 5	71205	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium		. 150	0.10	- 24.88	142.2	36.4	. 75	125	,		S
Cadmium		22	0.10	24.88	0	88.2	75.	125			
		26	0.30	24.88	4.477	86.7	75	125			
Chromium								405			
Chromium Copper		25	0.30	24.88	2.403	92.2	/5	125			
Chromium Copper .ead		25 ND	0.30 25	24.88 24.88	2.403 0.2220	92.2 78.7	75	125			

Ε 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

the associated Method Blank te detected :

Ĥ Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2.

RL Reporting Detection Limit Page 6 of 8

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#:	1406D34

15-Jul-14

Client: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #8

		<u> </u>										
Sample ID	1406D34-001AMS	SampT	Type: MS	5	TestCode: EPA Method 6010B: Soil Metals							
Client ID:	Cell #8 #1	Batcl	h ID: 14	031	F	RunNo: 1	9675					
Prep Date:	7/2/2014	Analysis [Date: 7/	3/2014	s	SeqNo: 5	71205	Units: mg/h	۲g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver		4.5	0.25	4.977	0	89.7	75	125				
Zinc		33	2.5	24.88	11.83	84.8	75	125				
Sample ID	1406D34-001AMS	D Samp1	Type: MS		Tes	tCode: El	PA Method	6010B: Soil	Metals			
Client ID:	Cell #8 #1	Batc	h ID: 14	031	F	RunNo: 1	9675					
Prep Date:	7/2/2014	Analysis [Date: 7/	3/2014	S	SeqNo: 5	71206	Units: mg/h	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium		160	0.097	24.30	142.2	92.6	• 75	125	8.52	20		
Cadmium		22	0.097	24.30	0 _*	88.8	75	125	1.68	20		
Chromium		25	0.29	24.30	4.477	85.5	75	125	3.06	20		
Copper		26	0.29	24.30	2.403	95.5	75	125	1.13	20		
Lead		ND	24	24.30	0.2220	78.4	75	125	0	20		
Manganese		93	0.097	24.30	66.83	107	75	125	0.356	20		
Silver		4.4	0.24	4.861	0	89.7	75	125	2.38	20		
Zinc		32	2.4	24.30	11.83	81.4	75	125	4.10	20		
Sample ID	1406D34-001AMS	Samp	Type: MS	 }	Tes	tCode: El	PA Method	6010B: Soil	Metals			
Client ID:	Cell #8 #1	Batc	h ID: 14	031	F	RunNo: 1	9736					
Prep Date:	7/2/2014	Analysis [Date: 7 /	8/2014	S	SeqNo: 5	73346	Units: mg/P	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium		18	2.5	24.88	0	71.5	75	125			S	
Sample ID	1406D34-001AMS	D Samp	Гуре: М\$	 SD	Tes	tCode: El	PA Method	6010B: Soil	Metals			
Client ID:	Cell #8 #1	Batc	h ID: 14	031	F	RunNo: 1	9736					
Prep Date:	7/2/2014	Analysis [Date: 7/	8/2014	5	SeqNo: 5	73347	Units: mg/	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	· · · · · ·	17	2.4	24.30	0	71.0	75	125	2.99	20	S	
Sample ID	1406D34-001AMS	Samp	Гуре: МS	3	Tes	tCode: El	PA Method	6010B: Soil	Metals			
Client ID:	Cell #8 #1	Batc	h ID: 14	031	F	RunNo: 1	9760					
Prep Date:	7/2/2014	Analysis [Date: 7/	9/2014	5	SeqNo: 5	74131	Units: mg/h	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		25	12	24.88	0	102	75	125				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 7 of 8

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D34

15-Jul-14

Sample ID	1406D34-001AMS	D SampType	e: MS	SD	Tes	stCode: E	PA Method	6010B: Soil	Metals		
Client ID:	Cell #8 #1	Batch ID	: 14	031	. I	RunNo: 1	9760				
Prep Date:	7/2/2014	Analysis Date	: 7/	9/2014	:	SeqNo: (574132	Units: mg/l	۲g		
Analyte	•	Result P	QĽ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		28	12	24.30	0	117	75	125	11.7	20	
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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 S
- В Analyte detected in the associated Method Blank
- Ĥ Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. P
- RL Reporting Detection Limit

Page 8 of 8

HALL ENVIRONI ANALYSIS LABORAT	MENTAL 3 Ory	Hall Environmental Alb TEL: 505-345-3975 Website: www.hu	Analysis Labora 4901 Hawkins uquerque, NM 87 FAX: 505-345-4 allenvironmental.	tory s NE 7109 Sam (107 com	Sample Log-In Check List					
Client Name: J &	LLANDFARM	Work Order Number	: 1406D34		RcptNo:	1				
Received by/date:	Ċs	06/27/14								
Logged By: Ce	elina Sessa	6/27/2014 8:50:00 AM	l	Celin S	m					
Completed By: Ce	lina Sessa	6/27/2014 3:34:56 PM		alim S	m					
Reviewed By:	A OUTS	114								
Chain of Custod	<u>لا</u>									
1 Custody seals int	tact on sample bottles?		Yes 🗌	No 🗖	Not Present 🗹					
2. Is Chain of Custo	ody complete?		Yes 🗹	No 🛄	Not Present					
3. How was the sam	nple delivered?		<u>FedEx</u>							
Log In										
4. Was an attempt	made to cool the samp	les?	Yes 🗹	No 🗋	na 🗔					
5. Were all samples	s received at a tempera	ture of >0° C to 6.0°C	Yes 🗹	No 🗔						
6. Sample(s) in pro	per container(s)?		Yes 🗹	No 🗔						
7. Sufficient sample	volume for indicated t	est(s)?	Yes 🗹	No 🗌						
8. Are samples (exc	cept VOA and ONG) pr	operly preserved?	Yes 🗹	No 🗌						
9. Was preservative	e added to bottles?		Yes 🗌	No 🗹	NA 🛄					
10.VOA vials have z	ero headspace?		Yes 🗌	No 🗋	No VOA Vials 🗹					
11. Were any sampl	e containers received t	oroken?	Yes 🗆	No 🗹	# of preserved					
12. Does paperwork	match bottle labels?		Yes 🗹	No 🗌	bottles checked for pH:					
(Note discrepand	cies on chain of custody	/) in of Custodu?	Vec 🖌	No 🗔	رحات Adjusted?	r >12 uniess noteo)				
1.4. is it clear what a	natives were requested		Yes 🗹		_					
15. Were all holding	times able to be met? omer for authorization.	··· .	Yes 🗹	No 🗌	Checked by:					
Special Handling	r (lf annlicahla)									
16 Was client notific	A of all discremencies	with this order?	Yes 🗍	No 🗔	NA 🔽					
			دمي مي.]				
Person Not		Date		Bhone 🗔 Eav	In Person					
Recarding	·									
Client Instr	uctions:									
17. Additional remain	rks:					_				
18. <u>Cooler Informa</u>	tion .									
Cooler No	Temp °C Condition	Seal Intact Seal No	Seal Date	Signed By						

Page 1 of 1

C	hain [.]	-of-Cu	istod	ly Re	ecord	Tum-Arc	ound	Time:							a ė	y			.~			· B. B · · · ·	• • •	
Client:					<u></u>	Stan	ndard	🛛 Rush						1A N	LL A I	ei Ve	чv 2тс	716 2 8		1 M 2 M		1911 1. 1. 1. 1.	AL 191	
Mailing Po Phone i email o QA/QC I Stan	Address Bex #: 5 r Fax#: Package: idard	356 H 15- 63 11726	0555, 31-55 1697(□ Leve	N/IQ & 7 65 6 Qol el 4 (Fu	SZY CDM Il Validation)	Project I Project I Project I	Mame	ger: Rush	e Cell #8	ANALYSIS LABORATO www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request (1208) s B / ON / ON / Od / S B / O														
	itation					Sampler	r. 2	hite		TMB	НЧТ	<u>io</u> /o	. -	1.1)	270		NO2	808						î
	(Type)					Sample	Tem	perature: 5	LI NO 162	+ 12 12 12 12 12 12 12 12 12 12 12 12 12	3E +	(GRC	d 418	d 50) or 8	tals	,NO3	des /	2	VOA				S or
Date	Time	Matrix	San	nple R	equest ID	Contai Type a	iner nd #	Preservative Type	HEAL NO. 1406D34	BTEX + MT8	BTEX + MTB	TPH 8015B	TPH (Metho	EDB (Metho	PAH's (8310	RCRA 8 Me	Anions (F,CI	8081 Pestici	8260B (VOA	8270 (Semi-	metale x			Air Bubbles
WILL	0930	soil	Cel	1#8	3 # 1	1 402	ales	ice	-00												x			Ť
1	0931			[#2		r		-002												r			Τ
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Date: 6/26	Time:	Relinquish	ed by:			Received	by:	- Smo	Date Time 06/27/14/08570	Ren	nark	s:		ا		à			<u> </u>	, ,	L			
Date:	fime:	Relinquis	ed by:			Received	by:		Date Time	A:	s P	eq ac	- L C	- ' - C	u	re Fe	P	01	nnł	ta	Se	Aa	ZN	r

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited taboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 11, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone 5 Yr Metals Cell #9

OrderNo.: 1406D36

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> 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 1406D36 Date Reported: 7/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Lab ID:

1406D36-001

Project: Vadose Zone 5 Yr Metals Cell #9

Client Sample ID: Cell #9 #1

Collection Date: 6/26/2014 10:28:00 AM Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	0.032	mg/Kg	1	7/3/2014 12:21:56 PM	14021
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 10:02:22 AM	14031
Barium	68	0.099	mg/Kg	1	7/3/2014 12:46:35 PM	14031
Cadmium	ND	0.099	mg/Kg	1	7/3/2014 12:46:35 PM	14031
Chromium	4.8	0.30	mg/Kg	1	7/3/2014 12:46:35 PM	14031
Copper	1.7	0.30	mg/Kg	1	7/3/2014 12:46:35 PM	14031
Iron	4300	20	mg/Kg	20	7/3/2014 1:06:35 PM	14031
Lead	ND	4.9	mg/Kg	20	7/3/2014 1:06:35 PM	14031
Manganese	51	0.099	mg/Kg	1	7/3/2014 12:46:35 PM	14031
Selenium	ND	2.5	mg/Kg	1	7/3/2014 12:46:35 PM	14031
Silver	ND	0.25	mg/Kg	1	7/3/2014 12:46:35 PM	14031
Zinc	11	2.5	mg/Kg	, 1	7/3/2014 12:46:35 PM	14031

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 450 1 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysi	s Laborat	tory, Inc.	· .	Lab Order 1406D36 Date Reported: 7/11/2014					
CLIENT: J & L Landfarm Project: Vadose Zone 5 Yr Metals Cell Lab ID: 1406D36-002	#9 Matrix: S	SOIL	Client Sample ID: Cell #9 #2 Collection Date: 6/26/2014 10:36:00 AM Received Date: 6/27/2014 8:50:00 AM						
Analyses	Result	RL QI	al Units	DF	Date Analyzed	Batch			
EPA METHOD 7471: MERCURY					Analyst	TES			
Mercury	ND	0.033	ˈimg/Kg	1	7/3/2014 12:27:10 PM	14021			
EPA METHOD 6010B: SOIL METALS				'-,	Analyst	ELS			
Arsenic	ND	12	mg/Kg	5	7/9/2014 10:03:34 AM	14031			
Barium	69	0.097	mg/Kg	1	7/3/2014 12:47:56 PM	14031			
Cadmium	ND	0.097	mg/Kg	1	7/3/2014 12:47:56 PM	14031			
Chromium	· 3.8	0.29	mg/Kg	1	7/3/2014 12:47:56 PM	14031			
Copper	0.37	0.29	mg/Kg	1	7/3/2014 12:47:56 PM	14031			
iron	3400	19	mg/Kg	20	7/3/2014 1:07:56 PM	14031			
Lead	ND	4.8	mg/Kg	20	7/3/2014 1:07:56 PM	14031			
Manganese	34	0.097	mg/Kg	1	7/3/2014 12:47:56 PM	14031			
Selenium	ND	2.4	mg/Kg	1	7/3/2014 12:47:56 PM	14031			
Silver	ND	0.24	mg/Kg	1	7/3/2014 12:47:56 PM	14031			
Zinc	7.6	2.4	mg/Kg	1	7/3/2014 12:47:56 PM	14031			

Analytical Report

			· · · · · · · · · · · · · · · · · · ·					
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank				
i	Ε	Value above quantitation range	н	Holding times for preparation or analysis exceeded				
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2	of 6			
	0	RSD is greater than RSD limit	P	Sample pH greater than 2				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits		•				

Analytical Report Lab Order 1406D36

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406D36 Date Reported: 7/11/2014

CLIENT: J & L Landfarm

Lab ID:

Project: Vadose Zone 5 Yr Metals Cell #9

1406D36-003

Client Sample ID: Cell #9 #3 Collection Date: 6/26/2014 10:47:00 AM

Received Date: 6/27/2014 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	TES
Mercury	ND	. 0.032	mg/Kg	1	7/3/2014 12:28:57 PM	14021
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	12	mg/Kg	5	7/9/2014 10:04:47 AM	14031
Barium	83	0.097	mg/Kg	1	7/3/2014 12:49:16 PM	14031
Cadmium	ND	0.097	mg/Kg	1	7/3/2014 12:49:16 PM	14031
Chromium	4.7	0.29	mg/Kg	1	7/3/2014 12:49:16 PM	14031
Соррег	1.5	0.29	mg/Kg	1	7/3/2014 12:49:16 PM	14031
Iron	4200	19	mg/Kg	20	7/3/2014 1:09:20 PM	14031
Lead	ND	4.8	mg/Kg	20	7/3/2014 1:09:20 PM	14031
Manganese	48	0.097	mg/Kg	1	7/3/2014 12:49:16 PM	14031
Selenium	ND	2.4	mg/Kg	1	7/3/2014 12:49:16 PM	14031
Silver	ND	0.24	mg/Kg	1	7/3/2014 12:49:16 PM	14031
Zinc	10	2.4	mg/Kg	1	7/3/2014 12:49:16 PM	14031

Matrix: SOIL

Qualifiers:	•	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank			
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis exceeded				
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 6			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 01 0			
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						

Hall Environmental Analysi	s Labora	tory, Inc.			Ánalytical Report Lab Order 1406D36 Date Reported: 7/11/20	14			
CLIENT: J & L Landfarm Project: Vadose Zone 5 Yr Metals Cell Lab ID: 1406D36-004	#9 Matrix:	SOIL	Client Sample ID: Cell #9 #4 Collection Date: 6/26/2014 10:55:00 AM Received Date: 6/27/2014 8:50:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 7471: MERCURY		· .	·, *,		Analysi	t: TES			
Mercury	` ND `	0.033	mg/Kg	1	7/3/2014 12:30:44 PM	14021			
EPA METHOD 6010B: SOIL METALS		1. T			Analysi	ELS			
Arsenic	ND	12	mg/Kg	5	7/9/2014 10:06:02 AM	14031			
Barium	68	0.099	mg/Kg	1	7/3/2014 12:50:39 PM	14031			
Cadmium	ND `	0.099	mg/Kg	`1	7/3/2014 12:50:39 PM	14031			
Chromium	4.4	0.30	mg/Kg	1	7/3/2014 12:50:39 PM	14031			
Copper	ND	0.30	mg/Kg	<u> </u>	7/3/2014 12:50:39 PM	14031			
lron ·	4000	20	mg/Kg	20	7/3/2014 1:10:45 PM	14031			
Lead	ND	5.0	mg/Kg	20	7/3/2014 1:10:45 PM	14031			
Manganese	29	0.099	mg/Kg	1	7/3/2014 12:50:39 PM	14031			
Selenium	ND	2.5	mg/Kg	1	7/3/2014 12:50:39 PM	14031			
Silver	ND	0.25	mg/Kg	1	7/3/2014 12:50:39 PM	14031			
Zinc	9.3	2.5	mg/Kg	1	7/3/2014 12:50:39 PM	14031			
			1						

			I		
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	
	Ε	Value above quantitation range	н	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 4 of	6
	0	RSD is greater than RSDlimit	P	Sample pH greater than 2.	Ŭ
	R	RPD outside accepted recovery limits	RĹ	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	J & L Lan	dfarm									
Project:	Vadose Z	one 5 Yr N	letals (Cell #9							
Sample ID	MB-14021	SampTy	pe: M	3LK	Tes	Code: El	PA Method	7471: Mercur	у		
Client ID:	PBS	Batch	ID: 14	021	ਸ	lunNo: 19	9667				
Prep Date:	7/2/2014	Analysis Da	ite: 7/	3/2014	S	egNo: 5	71003	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.033								
Sample ID	LCS-14021	SampTy	pe: LC	 S	Tes	Code: El	PA Method	7471: Mercui	у У		
Client ID:	LCSS	Batch	ID: 14	021	F	tunNo: 1	9667				
Prep Date:	7/2/2014	Analysis Da	ite: 7/	3/2014	S	egNo: 5	71004	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.16	0.033	0.1667	0	96.3	80	120			
Sample ID	1406D36-001AMS	SampTy	pe: MS		Tes	Code: El	PA Method	7471: Mercur	у		
Client ID:	Cell #9 #1	Batch	ID: 14	021	Я	tunNo: 1	9667				
Prep Date:	7/2/2014	Analysis Da	ite: 7/	3/2014	S	eqNo: 5	71008	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.14	0.032	0.1601	0.008478	84.6	75	125			
Sample ID	1406D36-001AMS	SampTy	pe: MS	5D	Tes	Code: El	PA Method	7471: Mercur	у		
Client ID:	Ceil #9 #1	Batch	ID: 14	021	F	tunNo: 1	9667				

SeqNo: 571009 Units: mg/Kg Prep Date: 7/2/2014 Analysis Date: 7/3/2014 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.15 0.033 0.1650 0.008478 84.4 75 125 2.51 20

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
- 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
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 5 of 6

11-Jul-14

WO#: 1406D36

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D36

11-Jul-14

Client: J & L Landfarm

Project: Vadose Zone 5 Yr Metals Cell #9

=

Sample ID LCS-14031	Samp	vpe: LC	s	Tes	Code: EP	A Method	6010B: Soil	Metals		
Client ID: LCSS	Batch ID: 14031			- -	unNo: 19	675				
Bren Date: 7/2/2014	Analysis F) oto: 7/	2/2044		Control FT	4420	, Linito: maile	*		
	Analysis L	ale. 7	3/2014	2	eqivo: 57	1138	Units: mg/r	g .		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	25.00	0	93.6	80	120			
Barium	22	0.10	25.00	0	89.5	80	120			
Cadmium	23	0.10	25.00	0	90.2	80	120			
Chromium	23	0.30	25.00	0	90.0	80	120			
Copper	23	0.30	25.00	0	93.0	80	120			_
Iron	24	1.0	25.00	0	96.3	80	120			В
Lead	22	0.25	25.00	0	87.5	80	120			
Manganese	22	0.10	25.00	0	89.3	80	120			
Selenium	22	2.5	25.00	0,	86.8	80	120		,	
Silver	4.7	0.25	5.000	0	93.8	80	120			
		2.5	25.00	. 0	89.9	80	120			
Sample ID MB-14031	Samp	ype: ME	BLK	Test	Code: EP	A Method	6010B: Soil	Metals		
Client ID: PBS	Batc	n ID: 14	031	R	unNo: 19	675				
Prep Date: 7/2/2014	Analysis [)ate: 7/	3/2014	s	eqNo: 57	/1141	Units: mg/H	۲g		
Analyte	Result	POI	CDK volvo		W DEC					. .
	1.000	FULL	SPR value	SPR Rei Vai	MREU	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5	SPR value	SPK Rei Vai	%REC		HighLimit	%RPD	RPDLimit	Qual
Arsenic Barium	ND ND	2.5 0.10	SPR value	SPR Rei Vai	%REC		HighLimit	%RPD	RPDLimit	
Arsenic Barium Cadmium	ND ND ND	2.5 0.10 0.10		SPK Rei Vai	%REC		HighLimit	<u>%RPD</u>	RPDLimit	
Arsenic Barium Cadmium Chromium	ND ND ND ND ND	2.5 0.10 0.10 0.30	SPR Value	SPR Rei Val	_%REC		HighLimit	%RPD_	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper	ND ND ND ND ND ND	2.5 0.10 0.10 0.30 0.30	SPR Value	SPR Rei Val			HighLimit	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron	ND ND ND ND ND ND	2.5 0.10 0.30 0.30 1.0	SPR Value	SPR Rei Val	[*]		HighLimit	%RPD_	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead	ND ND ND ND ND 1.1 ND	2.5 0.10 0.30 0.30 1.0 0.25		SPR Rei Val	,		HighLimit	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese	ND ND ND ND ND 1.1 ND ND	2.5 0.10 0.30 0.30 1.0 0.25 0.10		SPR Rei Val	'nREC		HighLimit	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium	ND ND ND ND ND 1.1 ND ND ND ND	2.5 0.10 0.30 0.30 1.0 0.25 0.10 2.5		SPR Rei Val	[*]		<u>HighLimit</u>	%RPD_	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver	ND ND ND ND ND 1.1 ND ND ND ND	2.5 0.10 0.30 0.30 1.0 0.25 0.10 2.5 0.25		SPR Rei Val	,		HighLimit	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver Zinc	ND ND ND ND ND 1.1 ND ND ND ND ND	2.5 0.10 0.30 0.30 1.0 0.25 0.10 2.5 0.25 2.5		SPR Rei Val	[*]		HighLimit	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver Zinc	ND ND ND ND ND 1.1 ND ND ND ND	2.5 0.10 0.30 0.30 1.0 0.25 0.10 2.5 0.25 2.5		SPR Rei Val	⁷ / ₀ REC		HighLimit	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver Zinc	ND ND ND ND ND 1.1 ND ND ND ND ND	2.5 0.10 0.30 0.30 1.0 0.25 0.10 2.5 0.25 2.5		SPR Rei Val	⁷ / ⁷ / ⁷ / ⁷		HighLimit	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver Zinc	ND ND ND ND ND 1.1 ND ND ND ND ND	2.5 0.10 0.30 0.30 1.0 0.25 0.10 2.5 0.25 2.5		SPR Rei Val	⁷		<u>HighLimit</u>	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver Zinc	ND ND ND ND ND 1.1 ND ND ND ND	2.5 0.10 0.30 0.30 0.30 0.25 0.10 2.5 0.25 2.5		SPR Rei Val	⁷		<u>HighLimit</u>	%RPD	RPDLimit	Qual
Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Selenium Silver Zinc	ND ND ND ND ND 1.1 ND ND ND ND	2.5 0.10 0.30 0.30 0.30 0.25 0.10 2.5 0.25 2.5		SPR Rei Val	'nREC		HighLimit	%RPD	RPDLimit	Quai
vrsenic Barium Cadmium Chromium Copper on ead Manganese Selenium Silver inc	ND ND ND ND ND 1.1 ND ND ND ND	2.5 0.10 0.30 0.30 0.30 1.0 0.25 0.10 2.5 0.25 2.5		SPR Rei Val	⁷ /7REC		HighLimit	%RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 6 of 6

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albu TEL: 505-345-3975 Website: www.hal	Analysis Labora 4901 Hawkins querque, NM 87 FAX: 505-345-4 Venvironmental.	tory NE 109 Sam 107 com	Sample Log-In Check List									
Client Name: J & L LANDFARM	Work Order Number:	1406D36		ReptNo:	1								
Received by/date:	06/27/14												
Logged By: Celina Sessa	6/27/2014 8:50:00 AM		Celim S	20cm									
Completed By: Celina Sessa	6/27/2014 3:44:39 PM		Celin S	2.22									
Reviewed By: A- 06/30/	14												
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?		FedEx											
Loa In													
4. Was an attempt made to cool the sample	s?	Yes 🔽	No 🗆	NA 🗔									
5. Were all samples received at a temperatu	re of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗆									
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗆										
			N- (7										
7. Sufficient sample volume for indicated tes	t(s)?	Yes MZ		·									
8. Are samples (except VOA and ONG) prop	eny preserved?	Yes 🔽											
9. Was preservative added to bottles?		Yes 🗀	NO 🖳										
10. VOA vials have zero headspace?		Yes	No 🗌	No VOA Vials 🗹									
11, Were any sample containers received bro	oken?	Yes	No 🗹	# of preserved									
1 2 B		Mara 🗖		bottles checked	1								
(A) Uses paperwork match bottle labels? (Note discrepancies on chain of custody)		195 🗹		(<2 0	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? (If no, notify customer for authorization.)		Yes 🗹	No 🗆	Checked by:									
<u>Special Handling (if applicable)</u>		_		_									
16. Was client notified of all discrepancies wit	h this order?	Yes 🗋	No 🗌	NA 🗹									

Person Notified:		Date		ويتعوي الموالين المناور	
By Whom:		Via:	🗌 eMall	🗌 Phone 🛄 Fax	In Person
Regarding:					
Client Instructions:					

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Yes			

Page 1 of 1

C	:hain	-of-Cu	stody Record	Turn-Around	Time:									وي خوردنو						
Client:				Standard 🗆 Rush															,	
J4L herdfarm				Project Name:				www.hallenvironmental.com												
Mailing Address: PO Bex 356 Holds Nm 88241			5 yr metals cell +9 Project #			4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107														
Phone #: 575-631-5765			· · ·			Analysis Request														
email or Fax#: jlnab 9697 @ gol.com			Project Mana	iger:		⊆	(Âu	Ô				(†								
QAVQC	Package:		-		•••	_	802	o se	Ň			0	0, S	l in	1					
Standard Level 4 (Full Validation)		Judy	Koberts);s ()	Ö	8					5 B								
	itation		-	Sampler:	hish-		ĮΫ.	臣	2	?	Ê	3	N Z	808						Î
			······	On Ice:	Yes	- 🖸 No 770	+ 	+ 	Ъ К	418	204		ļģ	S9		(A)				હ
				Container	Preservative		+ MTB	+ MTB	015B (Aethod	Method	8 Mets	(F,CI,	esticid	(VOA)	Seml-V	×	,		obles (
Date	Time	Matrix	Sample Request ID	Type and #	Туре	HEAL NO.	BTEX	BTEX	TPH 8	TPH (A	EDB ()	RCRA	Anions	8081 F	8260B	8270 (;	Mela M			Air But
2161	1028	soil	Cell # 9 # 1	1 100 0/155	ice	-001											x			\Box
1	1036		#2			-002											r			
	1047		#3			-003											r		Τ	
4	1055		w they		1	-004						_					X			
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Date:	Time:	Relinquish	ed by:	Received by:	<u></u>	Date Time	Ren	narks	 ;;		_1_		- L	1	L	L	۱ ۱		<u>_</u>	
6/26	1130	A	site	alua	- Suno	- 06/27/14 085	Þ _	<u> </u>	- 1		_	~^	_							
Date:	Time:	Relinquistie	ed by:	Received by:		Date Time	5	માં (-4	-12	_ M	elok	5							
	l			<u> </u>			A	s B	a Çe	1 Cr	- Cu	Fe	- P	61	MN	Ha	Se	Aa i	ZN	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report
HALL ENVIRONMENTAL ANALYSIS LABORATORY Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

June 11, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeat Cell 25 5yr Metals

OrderNo.: 1406146

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/4/2014 for the analyses presented in the following report.

1.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 1406146 Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

Vadose Zone Repeat Cell 25 5yr Metals

CLIENT: J & L Landfarm

Project:

Client Sample ID: Cell 25 Random Select #1 Collection Date: 6/3/2014 8:50:00 AM Received Date: 6/4/2014 8:45:00 AM

Lab ID: 1406146-001	Matrix:	SOIL		Received	Date: 6/4	/2014 8:45:00 AM	
Analyses	Result	RL	Qual	Units	ÐF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2014 10:53:52 AM	13514
Toluene	ND	0.047		mg/Kg	1	6/5/2014 10:53:52 AM	13514
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2014 10:53:52 AM	13514
Xylenes, Total	ND	0.093		mg/Kg	1	6/5/2014 10:53:52 AM	13514
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/5/2014 10:53:52 AM	13514
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	68	30		mg/Kg	20	6/5/2014 12:37:19 PM	13547
EPA METHOD 7471: MERCURY						Analyst	: MMD
Mercury	ND	0.033		mg/Kg	1	6/6/2014 2:27:10 PM	13546
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	ND	2.4		mg/Kg	1	6/7/2014 1:49:44 PM	13541
Barium	79	0.098		mg/Kg	1	6/7/2014 1:49:44 PM	13541
Cadmium	ND	0.098		mg/Kg	1	6/7/2014 1:49:44 PM	13541
Chromium	5.5	0.29		mg/Kg	1	6/7/2014 1:49:44 PM	13541
Copper	4.3	0.29		mg/Kg	1	6/7/2014 1:49:44 PM	13541
iron	7200	49	В	mg/Kg	50	6/7/2014 12:30:07 PM	13541
Lead	3.4	0.24		mg/Kg	1	6/7/2014 1:49:44 PM	13541
Manganese	96	0.098		mg/Kg	1	6/7/2014 1:49:44 PM	13541
Selenium	ND	2.4		mg/Kg	1	6/7/2014 1:49:44 PM	13541
Silver	ND	0.24		mg/Kg	1	6/7/2014 1:49:44 PM	13541
Zinc	18	2.4		mg/Kg	1	6/7/2014 1:49:44 PM	13541
EPA METHOD 418.1: TPH		· .				Analyst	: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/5/2014 12:00:00 PM	13523

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	J
	Е	Value above quantitation range	1

- Analyte detected below quantitation limits J
- 0 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 В
- Holding times for preparation or analysis exceeded н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- **Reporting Detection Limit** RL
- Page 1 of 10

					Lab Order 1406146	
Hall Environmental Analysi	is Labora	tory, Inc.		_	Date Reported: 6/11/201	14
CLIENT: J & L Landfarm Project: Vadose Zone Repeat Cell 25 5 Lob ID: 1406146 002	yr Metals	SOII	Client Sampl Collection I	e ID: Ce Date: 6/3	Il 25 Random Select #2 /2014 9:16:00 AM	2
Lad ID: 1400140-002		50IL	Keceivea I	Jate: 0/4	/2014 8:43:00 AM	
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES				• •	Analyst	NSB
Benzene	ND	0.048	mg/Kg	1	6/5/2014 12:19:42 PM	13514
Toluene	ND	0.048	mg/Kg	1	6/5/2014 12:19:42 PM	13514
Ethylbenzene	ND	0.048	mg/Kg	1	6/5/2014 12:19:42 PM	13514
Xylenes, Total	ND	0.096	mg/Kg	1	6/5/2014 12:19:42 PM	13514
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	6/5/2014 12:19:42 PM	13514
EPA METHOD 300.0: ANIONS					Analyst	JRR
Chloride	38	30	mg/Kg	20	6/5/2014 1:14:33 PM	13547
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.033	mg/Kg	1	6/6/2014 2:28:57 PM	13546
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	6/7/2014 1:50:58 PM	13541
Barium	89	0.10	mg/Kg	1	6/7/2014 1:50:58 PM	13541
Cadmium	ND	0.10	mg/Kg	1	6/7/2014 1:50:58 PM	13541
Chromium	4.5	0.30	mg/Kg	1	6/7/2014 1:50:58 PM	13541
Copper	3.3	0.30	_ mg/Kg	1	6/7/2014 1:50:58 PM	13541
Iron	5600	50	B mg/Kg	50	6/7/2014 12:31:38 PM	13541
Lead	2.1	0.25	mg/Kg	1	6/7/2014 1:50:58 PM	13541
Manganese	58	0.10	mg/Kg	1	6/7/2014 1:50:58 PM	13541
Selenium	ND	2.5	mg/Kg	1	6/7/2014 1:50:58 PM	13541
Silver	ND	0.25	mg/Kg	1	6/7/2014, 1:50:58 PM	13541
Zinc	14	2.5	mg/Kg	1	6/7/2014 1:50:58 PM	13541
EPA METHOD 418.1: TPH					Analyst:	JME
Petroleum Hydrocarbons, TR	75	20	mg/Kg	1	6/5/2014 12:00:00 PM	13523

Analytical Report

Qualifiars	•	Value exceeds Maximum Contaminant Level	B	Anglete detected in the associated Mathod Plank
Quanners.		value execcus maximum containmant Level.		Analyte detected in the associated Method Blank
	Е	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	, ND	Not Detected at the Reporting Limit Page 2 of 10
	0	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		· ,

Analytical Report Lab Order 1406146

Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm **Project:** Vadose Zone Repeat Cell 25 5yr Metals 1406146-003 Matrix: SOIL Lab ID:

Client Sample ID: Cell 25 Random Select #3 Collection Date: 6/3/2014 9:35:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analysi	: NSB
Benzene	ND	0.049		mg/Kg	1	6/5/2014 12:48:22 PM	13514
Toluene	ND	0.049		mg/Kg	1	6/5/2014 12:48:22 PM	13514
Ethylbenzene	ND	0.049		mg/Kg	1	6/5/2014 12:48:22 PM	13514
Xylenes, Total	ND	0.099		mg/Kg	1	6/5/2014 12:48:22 PM	13514
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/5/2014 12:48:22 PM	13514
EPA METHOD 300.0: ANIONS						Analys	: JRR
Chloride	22	1.5		mg/Kg	1	6/9/2014 5:59:02 PM	13547
EPA METHOD 7471: MERCURY						Analys	MMD
Mercury	ND	0.033		mg/Kg	1	6/6/2014 2:30:45 PM	13546
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	ND	2.4		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Barium	76	0.097		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Cadmium	ND	0.097		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Chromium	6.8	0.29		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Copper	5.2	0.29		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Iron	9100	48	в	mg/Kg	50	6/7/2014 12:33:06 PM	13541
Lead	2.7	0.24		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Manganese	100	0.097		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Selenium	ND	. 2.4		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Silver	ND	0.24		mg/Kg	1	6/7/2014 1:52:12 PM	13541
Zinc	18	2.4		mg/Kg	1	6/7/2014 1:52:12 PM	13541
EPA METHOD 418.1: TPH						Analysi	: JME
Petroleum Hydrocarbons, TR	23	20		mg/Kg	1	6/5/2014 12:00:00 PM	13523

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the ass
	Ε	Value above quantitation range	н	Holding times for preparati
	J	Analyte detected below quantitation limits	ND	Not Detected at the Report
	0	RSD is greater than RSDlimit	Ρ.	Sample pH greater than 2.

- υ R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- ociated Method Blank
- ion or analysis exceeded
 - ing Limit Page 3 of 10
- Sample pH greater than 2 r
- RL Reporting Detection Limit

Project: Vadose Zone Repeat Cell 25 5	yr Metals		Collection	Date: 6/3	/2014 10:02:00 AM
Lab ID: 1406146-004	Matrix:	SOIL	Received 1	Date: 6/4	/2014 8:45:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analy
Benzene	ND	0.048	mg/Kg	1	6/5/2014 1:45:40 PM
Toluene	ND	0.048	mg/Kg	1	6/5/2014 1:45:40 PM
Ethylbenzene	ND	0.048	mg/Kg	· 1	6/5/2014 1:45:40 PM
Xylenes, Total	ND	0.095	mg/Kg	1	6/5/2014 1:45:40 PM
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	6/5/2014 1:45:40 PM
EPA METHOD 300.0: ANIONS					Analy
Chloride	520	30	mg/Kg	. 20	6/5/2014 1:39:23 PM
EPA METHOD 7471: MERCURY					Analy
Mercury	ND	0.033	mg/Kg	1	6/6/2014 2:34:06 PM
EPA METHOD 6010B: SOIL METALS	,				Analy
Arsenic	ND	2.4	mg/Kg	1	6/7/2014 1:54:42 PM
Barium	44	0.098	mg/Kg	1	6/7/2014 1:54:42 PM
Cadmium	ND	0.098	mg/Kg	1	6/7/2014 1:54:42 PM
Chromium	7.0	0.29	mg/Kg	1	6/7/2014 1:54:42 PM

0.29

0.24

0.098

2.4

0.24

2.4

20

49

В

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

4.0

1.8

89

ND

ND

17

130

9100

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:

Lab ID:

Analyses

Copper

Iron

Lead

Silver

Zinc

Manganese

EPA METHOD 418.1: TPH

Petroleum Hydrocarbons, TR

Selenium

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.			В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	ſ		Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	194 194	• '	ND	Not Detected at the Reporting Limit	Page 1 of 10
	0	RSD is greater than RSD imit	1 - 14	•	Р	Sample pH greater than 2.	rage 4 01 10
	R	RPD outside accepted recovery limits	·		RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits					
					1		

Lab Order 1406146

Client Sample ID: Cell 25 Random Select #4 :00 AM MA 0(

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6/7/2014 1:54:42 PM

6/7/2014 12:34:39 PM

6/7/2014 1:54:42 PM

6/5/2014 12:00:00 PM

r

Analytical Report

Date Reported: 6/11/2014

Batch

13514

13514

13514

13514

13514

13547

13546

13541

13541

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13541

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13541

13541

13541

13541

13541

13523

Analyst: JME

Analyst: NSB

Analyst: JRR

Analyst: MMD

Analyst: ELS

WO#: 1406146

11-Jun-14

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J&L Vado	, Landfarm se Zone Repeat Ce	ell 25 5yr Meta	ls						
Sample ID	MB-13547	SampType:	MBLK	Tesi	Code: EPA Me	othod 30	00.0: Anion	s	<u>.</u>	
Prep Date:	6/5/2014	Analysis Date:	6/5/2014	S	eqNo: 551440	ι ι	Jnits: mg/K	g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC Low	Limit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5							
Sample ID	LCS-13547	SampType:	LCS	Tes	Code: EPA Me	othod 30	00.0: Anion	s		
Client ID:	LCSS	Batch ID:	13547	F	unNo: 19087					
Prep Date:	6/5/2014	Analysis Date:	6/5/2014	s	eqNo: 551441	ι	Jnits: mg/K	g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC Low	Limit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5 15.00	0.	95.6	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 greater than 2.
- RL Reporting Detection Limit

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QC SUMMA Hall Environme	RY REPOI	RT is I	aborat	ory, Inc.			,		WO#:	1406146 11-Jun-14
Client: J & Project: Vad	L Landfarm ose Zone Repeat C	ell 2	25 5yr Meta	ls	x					
Sample ID MB-13523	SampType	: ME	BLK	Tes	tCode: E	EPA Method	418.1: TPH			
Client ID: PBS	Batch ID	: 13	523	F	RunNo: 1	19048	•			
Prep Date: 6/4/2014	Analysis Date	: 6/	5/2014		SeqNo: 4	550619	Units: mg/H	(g	•	
Analyte	Result P		SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
		20								
Sample ID LCS-13523	SampType	: LC	S	Tes	tCode: E	EPA Method	418.1: TPH			Ì
Client ID: LCSS	Batch ID	: 13	523	F	RunNo: 1	19048				
Prep Date: 6/4/2014	Analysis Date	: 6/	5/2014	5	SeqNo: 4	550620	Units: mg/k	(g		
Analyte	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Quai
Petroleum Hydrocarbons, TR	92	20	100.0	0	91.9	80	120			
Sample ID LCSD-13523	SampType	: LC	SD	Tes	tCode: E	PA Method	418.1: TPH			
Client ID: LCSS02	Batch ID	: 13	523	· F	RunNo:	19048				
Prep Date: 6/4/2014	Analysis Date	: 6/	5/2014	٤	SeqNo: 4	550621	Units: mg/M	(g		
Analyte	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	99	20	100.0	0	98.9	80	120	7.30	20	

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 greater than 2.
- RL Reporting Detection Limit

Page 6 of 10

Client:	J & L L:	andfarm										
Project:	Vadose	Zone Repe	at Cell 2	25 5yr Meta	ls		<u> </u>					
Sample ID	MB-13514	Samp1	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles			
Client ID:	PBS	Batc	h ID: 13	514	F	RunNo: 1	9076					
Prep Date:	6/4/2014	Analysis [Date: 6/	5/2014		SeqNo: 5	51209	Units: mg/l	Kg			ļ
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit		RPDLimit	Qual	1
Benzene		ND	0.050									
Toluene		ND	0.050									
Ethylbenzene		ND	0.050									
Xylenes, Total		ND	0.10									
Surr: 4-Bron	nofluorobenzene	1.0		1.000		103	80	120				
Sample ID	LCS-13514	Samp1	Гуре: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles			
Client ID:	LCSS	Batc	h ID: 13	514	· F	RunNo: 1	9076					
Prep Date:	6/4/2014	Analysis E	Date: 6/	5/2014	5	SeqNo: 5	51210	Units: mg/ł	Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene		- 1.1	0.050	1.000	0	110	80	120				
Toluene		1.0	0.050	1.000	0	101	80	120				
Ethylbenzene		1.0	0.050	1.000	0	101	. 80	120				
Xylenes, Total		3.0	0.10	3.000	0	98.9	80	120				
Surr: 4-Brom	nofluorobenzene	1.1		1.000		108	80	120		<u></u>		_
Sample ID	1406146-001AMS	Samp1	Гуре: МS	 S	Tes	tCode: El	PA Method	8021B: Vola	tiles			
Client ID:	Cell 25 Random	Sel Batci	h ID: 13	514	F	RunNo: 1	9076					
Prep Date:	6/4/2014	Analysis E	Date: 6/	5/2014	9	SeqNo: 5	51212	Units: mg/ł	Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene		1.2	0.047	0.9346	0	129	67.4	135				
Toluene		1.2	0.047	0.9346	0	124	72.6	135				
Ethylbenzene		1.2	0.047	0.9346	0	126	69.4	143				
Xylenes, Total		3.4	0.093	2.804	0	121	70.8	144				
Surr: 4-Bron	nofluorobenzene	1.0		0.9346		107	80	120	·	·		
Sample ID	1406146-001AMS	SD Samp1	Type: MS	SD	Tes	tCode: El	PA Method	8021B: Vola	tiles			
Client ID:	Cell 25 Random	Sel Batcl	h ID: 13	514	F	RunNo: 1	9076					
Prep Date:	6/4/2014	Analysis E	Date: 6/	5/2014	5	SeqNo: 5	51213	Units: mg/l	Kg		·	
Analyte		Result	PQL	SPK vatue	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	-	1.2	0.047	0.9320	0	128	67.4	135	1.14	20		
Toluene		1.1	0.047	0.9320	0	121	72.6	135	3.20	20		
Ethylbenzene		1.1	0.047	0.9320	0	121	69.4	143	4.04	20		
Xylenes, Totał		3.3	0.093	2.796	0	118	70.8	144	3.11	20		
Surr: 4-Brorr	nofluorobenzene	1.0		0.9320		108	80	120	0	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Ε 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
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- Sample pH greater than 2. Р
- RL **Reporting Detection Limit**

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1406146

WO#:

11-Jun-14

QC SUMMAR Hall Environmen	Y REPO tal Analys	RT sis Laborat	tory, Inc.				• •	WO#:	1406146 11-Jun-14
Client: J&LI Project: Vadose	Landfarm 2 Zone Repeat	Cell 25 5yr Met	als			<u></u>		<u></u>	
Sample ID LCS-13564 Client ID: LCSS Prep Date: 6/6/2014 Analyte	SampTyp Batch I Analysis Dat Result	De: LCS D: 13564 Re: 6/7/2014 PQL SPK value	Te: SPK Ref Val	stCode: EP RunNo: 19 SeqNo: 55 %REC	A Method 108 2328 LowLimit	8021B: Volat Units: %RE HighLimit	c %RPD	RPDLimit	Quai
Sample ID MB-13564 Client ID: PBS Prep Date: 6/6/2014	1.2 SampTyp Batch I Analysis Dat	D: 13564 te: 6/7/2014	Te:	116 stCode: EP RunNo: 19 SeqNo: 55	80 A Method 108 2329	120 8021B: Volat Units: %RE	Liles C		
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
· · ·									
Qualifiers: * Value exceeds Maximum	Contaminant Lev	vel	B Analyti	e detected in	the associat	ed Method Bla	nk		
E Value above quantitation J Analyte detected below q O RSD is greater than RSD R RPD outside accepted red S Spike Recovery outside a	a range Juantitation limits limit covery limits	limits	H Holdin ND Not De P Sample RL Report	g times for p tected at the pH greater ing Detection	reparation c Reporting I than 2. h Limit	r analysis exce	eded	Page 8 o	f 10

WO#: 1406146

11-Jun-14

Client: J & L Landfarm Vadose Zone Repeat Cell 25 5yr Metals **Project:** Sample ID MB-13546 SampType: MBLK TestCode: EPA Method 7471: Mercury Client ID: PBS Batch ID: 13546 RunNo: 19099 Prep Date: 6/5/2014 Analysis Date: 6/6/2014 SeqNo: 551739 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual ND 0.033 Mercury Sample ID LCS-13546 SampType: LCS TestCode: EPA Method 7471: Mercury RunNo: 19099 Client ID: Batch ID: 13546 LCSS Prep Date: Analysis Date: 6/6/2014 SeqNo: 551740 Units: mg/Kg 6/5/2014 %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL SPK value SPK Ref Val Мегсигу 0.17 0.033 0.1667 0 99.6 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 greater than 2.
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1406146

11-Jun-14

Client: J & L La Project: Vadose	andfarm Zone Repeat Cell 25 5yr Meta	ls		- <u></u>
Samala ID. MR 42544				
			iod butub: Soli Metais	
Client ID: PBS	Batch ID: 13541	Runno: 19093		
Prep Date: 6/5/2014	Analysis Date: 6/6/2014	SeqNo: 551639	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLin	nit HighLimit %RPD RF	DLimit Qual
Arsenic	ND 2.5		· · ·	
Barium	ND 0.10			
Cadmium	ND 0.10			
Chromium	ND 0.30			1
Copper	ND 0.30			
Lead	ND 0.25			
Manganese	ND 0.10			
Selenium	ND 2.5			
Silver	ND 0.25			
Zinc	ND 2.5			
Sample ID LCS-13541	SampType: LCS	TestCode: EPA Meth	od 6010B: Soil Metals	
Client ID: LCSS	Batch ID: 13541	RunNo: 19093		
Prep Date: 6/5/2014	Analysis Date: 6/6/2014	SeqNo: 551640	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLin	nit HighLimit %RPD RF	DLimit Qual
Arsenic	23 2.5 25.00	0 91.3	80 120	
Barium	23 0.10 25.00	0 92.7	80 120	
Cadmium	23 0.10 25.00	0 90.8	80 120	
Chromium	23 0.30 25.00	0 92.0	80 120	
Copper	24 0.30 25.00	0 97.6	80 120	
Lead	22 0.25 25.00	0 87.5	80 120	
Manganese	23 0.10 25.00	0 92.6	80 120	
Selenium	22 2.5 25.00	0 86.1	80 120	
Silver	4.6 0.25 5.000	0 92.8	80 120 -	
Zinc	22 2.5 25.00	0 89.9	80 120	
Sample ID MB-13541	SampType: MBLK	TestCode: EPA Meth	od 6010B: Soil Metals	,
Client ID: PBS	Batch ID: 13541	RunNo: 19106	,	
Prep Date: 6/5/2014	Analysis Date: 6/7/2014	SeqNo: 552123	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLin	nit HighLimit %RPD RF	DLimit Qual
Iron	1.9 1.0	· · ·		
Sample ID LCS-13541	SampType: LCS	TestCode: EPA Meth	od 6010B: Soil Metals	
Client ID: LCSS	Batch ID: 13541	RunNo: 19106		
Prep Date: 6/5/2014	Analysis Date: 6/7/2014	SeqNo: 552124	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLin	nit HighLimit %RPD RF	DLimit Qual
Iron	26 1.0 25.00	0 103	80 120	В
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 greater than 2.

RL Reporting Detection Limit

HALL Hall A ENVIRONMENTAL ANALYSIS LABORATORY We	Environmental Analyst 4901 Albuquerqu 505-345-3975 FAX: 3 ebsite: www.hallenviro	is Laboratory Hawkins NE e, NM 87105 105-345-4107 ormental.com	Sam	ole Log-In Cł	neck List
Client Name: J & L LANDFARM Work O	order Number: 1406	146		RcptNo:	1
Received by/date:	jel				·
Logged By: Lindsay Mangin 6/4/2014	8:45:00 AM	O the	- yttlago		
Completed By: Lindsay Mangin 6/4/2014	9:38:11 AM	Ø	- tyttlago		
Reviewed By: OS 0604	114				
Chain of Custody					
1. Custody seals intact on sample bottles?	Yes		No 🗆	Not Present M	. `
2. Is Chain of Custody complete?	Yes		No 🗌	Not Present 🗌	
3. How was the sample delivered?	FedE	ž			
Log in					
4. Was an attempt made to cool the samples?	Yes		No 🗆	NA 🗌	
5. Were all samples received at a temperature of >0° C t	to 6.0°C Yes		No 🗆		
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 preserve	id? Yes				
9. Was preservative added to bottles?	Yes	IJ	No 🗹	NA LJ	
10.VOA vials have zero headspace?	Yes		No 🗌	No VOA Vials 🗹	
11. Were any sample containers received broken?	Yes		No 🗹	# of preserved	
12. Does paperwork match bottle labels?	Yes		No 🗆	for pH:	!
(Note discrepancies on chain of custody)				(<2 0) Adjusted?	>12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes				
15. Were all holding times able to be met?	Yes			Checked by:	
(If no, notify customer for authorization.)			- [
Special Handling (if apolicable)					
16. Was client notified of all discrepancies with this order?	Yes		No 🗖	NA 🗹	
Person Notified	Date				}
By Whom:	Via: ∏eMa	nil 🦳 Phone	Fax	In Person	
Regarding:					
Client Instructions:	· · · · · · · · · · · · · · · · · · ·	e a como calence que e	n in the Subsection		
17. Additional remarks:					,
18. <u>Cooler Information</u> <u>Cooler No</u> <u>Temp °C</u> Condition <u>Seal Intact</u> 1 <u>4.2</u> Good Yes	Seal No Seal D	ate Sign	ed By		
					

Page 1 of 1

Client:	Client:			Record	Turn-Ar	round	Time:]	H			:N\ ST	/IF S L	20 .AE	NI 30	ME		AL	7
<u> </u>	LL	auther	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Project	Name ose	ZONE	repeat	- 11/1	1			, i	www.	hallen	viron	men	tal.co	om				
Mailing	Address	U			Cell) a:	5 5vr	netals o	af 2/12	}	49(о 1 н	awki	ns NE	- A	lbuqu	erqu	e, Ni	M 87	109			
POE	304	356	Holds. N	Im 88241	Project #: Par ship				per ship	Tel. 505-345-3975 Fax 505-345-4107													
Phone	#: 57	5-63	1-51	65			. <u>.</u>	· ·	Y						Ana	lysis	Req	uest	-				
email o	r Fax#:	j l rob	96976	paol.com	Project	Mana	ger: - SKIP	TABOR	= bout]	(È	<u></u>				[¶	6						
QA/QE I	Package: Idard			4 (Full Validation)	,	- هند	Robert	son.		's (802	(Gas o	RO/M			SIMS)	PO4.S	2 PCB						
	itation AP	Othe	er		Sample On Ice:	:::	Z Yos Sy	CEI NO		+ TMB	HdT +	RO / DI	118.1)	504.1)	r 82/U :	03,NO2	s / 808		(A)	*			or N)
Date	Time	Matrix	Samp	le Request ID	Sample Conta Type a	i Tem iner and #	Preservative Type	2 HEA 4Ω0	NO: UCar	ETEXH MTBE	BTEX + MTBE	TPH 8015B (G	TPH Method 4	EDB (Method 5	PAH'S (8310 of RCRA 8 Metals	Anions (FCN	8081 Pesticide	8260B (VOA)	8270 (Semi-VC	metel			Air Bubbles (Y
6/3/14	0850	soi l	randon	select#1	4029	Re l	iæ	-α	5	X		\square	X			ľ				X		\Box	\square
1	0916			+2				-00)2	X			x	\perp		X				X			
1-	0935			<u>±3</u>				-00	B	X			<u>X</u>	_		X				X			
<u> </u>	160)			1-4-				-00	¥{	×			X			X				X			
·			Syrmi	F 6/10 per sk	r		· · ·					_		_								+	
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Date:	Time:	Relinquish	ed by:		Received		06/04	Date H 05	Time	₿¥ A;	narks B	s: a C	id (Cr '	ov	f.e.	PL	> N	4	Hg	Se H	fg 2	~
		. com iquion							11110				•	_						I		•	

If necessary, samples submitted to Halt Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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

June 11, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeat Cell 24 5yr Metals

OrderNo.: 1406147

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/4/2014 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 <u>www.hallenvironmental.com</u> 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 1406147 Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

Vadose Zone Repeat Cell 24 5yr Metals

CLIENT: J & L Landfarm

Project:

Client Sample ID: Cell 24 Random Select #1 Collection Date: 6/3/2014 7:13:00 AM Received Date: 6/4/2014 8:45:00 AM

Lab ID: 1406147-001	Matrix:	SOIL		Received Date: 6/4/2014 8:45:00 AM							
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch				
EPA METHOD 8021B: VOLATILES						Analys	: NSB				
Benzene	ND	0.047		mg/Kg	1	6/5/2014 2:14:14 PM	13514				
Toluene	ND	0.047		mg/Kg	1	6/5/2014 2:14:14 PM	13514				
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2014 2:14:14 PM	13514				
Xylenes, Total	ND	0.094		mg/Kg	1	6/5/2014 2:14:14 PM	13514				
Surr: 4-Bromofluorobenzene	99.9	80-120		%REC	1	6/5/2014 2:14:14 PM	13514				
EPA METHOD 300.0: ANIONS						Analys	t: JRR				
Chloride	120	30		mg/Kg	20	6/5/2014 1:51:47 PM	13547				
EPA METHOD 7471: MERCURY						Analys	t: MMD				
Mercury	ND	0.033		mg/Kg	1	6/6/2014 2:35:55 PM	13546				
EPA METHOD 6010B: SOIL METALS						Analysi	t: ELS				
Arsenic	ND	4.9		mg/Kg	2	6/6/2014 1:32:18 PM	13541				
Barium	39	0.098		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
Cadmium	ND	0.098		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
Chromium	6.0	0.29		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
Copper	1.9	0.29		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
Iron	4300	49	В	mg/Kg	50	6/7/2014 12:36:07 PM	13541				
Lead	1.2	0.25		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
Manganese	42	0.098		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
Selenium	ND	2.5		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
Silver	ND	0.25		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
Zinc	12	2.5		mg/Kg	1	6/7/2014 1:57:13 PM	13541				
EPA METHOD 418.1: TPH						Analys	: JME				
Petroleum Hydrocarbons, TR	180	20		mg/Kg	1	6/5/2014 12:00:00 PM	13523				
		• •									

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
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- S 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
- Р Sample pH greater than 2.
- **Reporting Detection Limit** RL

Page 1 of 9

CLIENT: J & L Landfarm			Client Sampl	e ID: Ce	II 24 Random Select #	2			
Project: Vadose Zone Repeat Cell 24	5vr Metals		Collection 1	Date: 6/3	/2014 7:33:00 AM				
Lab ID: 1406147-002	Matrix:	SOIL	Received I	Received Date: 6/4/2014 8:45:00					
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch			
EPA METHOD 8021B: VOLATILES					Analyst	t: NSB			
Benzene	ND	0.048	mg/Kg	1	6/5/2014 2:42:49 PM	13514			
Toluene	ND	0.048	mg/Kg	1	6/5/2014 2:42:49 PM	13514			
Ethylbenzene	ND	0.048	mg/Kg	1	6/5/2014 2:42:49 PM	13514			
Xylenes, Total	ND	0.096	mg/Kg	1	6/5/2014 2:42:49 PM	13514			
Surr: 4-Bromofluorobenzene	101	80-120	%REC	1	6/5/2014 2:42:49 PM	13514			
EPA METHOD 300.0: ANIONS					Analyst	: JRR			
Chloride	46	30	mg/Kg	20	6/5/2014 2:04:12 PM	13547			
EPA METHOD 7471: MERCURY					Analyst	: MMD			
Mercury	, ND	0.033	mg/Kg	1	6/6/2014 2:41:25 PM	13546			
EPA METHOD 6010B: SOIL METALS					Analyst	ELS			
Arsenic	ND	2.5	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Barium	77	0.099	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Cadmium	ND	0.099	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Chromium	8.3	0.30	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Copper	5.1	0.30	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Iron	11000	50	B mg/Kg	50	6/7/2014 12:45:00 PM	13541			
Lead	3.4	0.25	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Manganese	120	0.099	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Selenium	ND	2.5	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Silver	'ND	0.25	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
Zinc	22	2.5	mg/Kg	1	6/7/2014 2:02:19 PM	13541			
EPA METHOD 418.1: TPH					Analyst	: JME			
Petroleum Hydrocarbons, TR	240	20	mg/Kg	1	6/5/2014 12:00:00 PM	13523			

t

Analytical Report Lab Order 1406147

Oualifiers:		Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Metho	od Blank
2	Е	Value above quantitation range	H	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Dage 2 of 0
	0	RSD is greater than RSD limit	. P	Sample pH greater than 2.	r age 2 01 9
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report Lab Order 1406147 Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L LandfarmProject:Vadose Zone Repeat Cell 24 5yr MetalsLab ID:1406147-003Matrix: SOIL

Client Sample ID: Cell 24 Random Select #3 Collection Date: 6/3/2014 7:59:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.049		mg/Kg	1	6/5/2014 3:11:23 PM	13514
Toluene	ND	0.049		mg/Kg	1	6/5/2014 3:11:23 PM	13514
Ethylbenzene	ND	0.049		mg/Kg	1	6/5/2014 3:11:23 PM	13514
Xylenes, Total	ND	0.097		mg/Kg	1	6/5/2014 3:11:23 PM	13514
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	6/5/2014 3:11:23 PM	13514
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	140	30		mg/Kg	20	6/5/2014 3:06:14 PM	13547
EPA METHOD 7471: MERCURY						Analyst	: MMD
Mercury	ND	0.033		mg/Kg	1	6/6/2014 2:43:14 PM	13546
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	ND	. 2.5		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Barium	60	0.099		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Cadmium	ND	0.099		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Chromium	6.7	0.30		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Copper	4.8	0.30		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Iron	8000	50	в	mg/Kg	50	6/7/2014 12:46:22 PM	13541
Lead	4.4	0.25		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Manganese	110	0.099		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Selenium	ND	2.5		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Silver	ND	0.25		mg/Kg	1	6/7/2014 2:04:50 PM	13541
Zinc	19	2.5		mg/Kg	1	6/7/2014 2:04:50 PM	13541
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	110	20		mg/Kg	1	6/5/2014 12:00:00 PM	13523

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 9
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 61 5
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits		· .	

Hall Environmental Analysis	Labora	ic.			Date Reported: 6/11/20)14	
CLIENT: J & L Landfarm Project: Vadose Zone Repeat Cell 24 5y Lab ID: 1406147-004	r Metals Matrix:	SOIL	(Client Sam Collectio Receive	ple ID: Ce n Date: 6/3 d Date: 6/4	II 24 Random Select # 3/2014 8:19:00 AM 4/2014 8:45:00 AM	4
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analys	t: NSB
Benzene	ND	0.048		mg/Kg	. 1	6/5/2014 3:39:57 PM	13514
Toluene	' ND	. 0.048		mg/Kg	· 1	6/5/2014 3:39:57 PM	13514
Ethylbenzene	ND -	0.048		mg/Kg	<u> </u>	6/5/2014 3:39:57 PM	13514
Xylenes, Total	ND	0.097		mg/Kg	1	6/5/2014 3:39:57 PM	13514
Surr: 4-Bromofluorobenzene	100	80-120		%REC	· 1	6/5/2014 3:39:57 PM	13514
EPA METHOD 300.0: ANIONS					- ,	Analys	t: JRR
Chloride	. 31	30		mg/Kg	20	6/5/2014 3:18:39 PM	13547
EPA METHOD 7471: MERCURY						Analys	t: MMD
Mercury	ND	0.033		mg/Kg	1	6/6/2014 2:45:04 PM	13546
EPA METHOD 6010B: SOIL METALS						Analys	t: ELS
Arsenic	ND	2.5		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Barium	56	0.10		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Cadmium	ND	0.10		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Chromium	5.6	0.30		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Copper	4.0	0.30		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Iron	6300	50	в	mg/Kg	50	6/7/2014 1:24:21 PM	13541
Lead	1.7	0.25		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Manganese	86	0.10		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Selenium	ND	2.5		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Silver	ND	0.25		mg/Kg	1	6/7/2014 2:06:06 PM	13541
Zinc	16	2.5		mg/Kg	1	6/7/2014 2:06:06 PM	13541
EPA METHOD 418.1: TPH			Ĺ			Analys	t: JME
Petroleum Hydrocarbons, TR	47	20		mg/Kg	1	6/5/2014 12:00:00 PM	13523

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

Oualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Metho	od Blank
C	Ε	Value above quantitation range	н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 0
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 4 01 9
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report Lab Order 1406147

Client: Project:	J & L Vados	Landfarm se Zone Repea	24 5yr Meta	ls								
Sample ID	MB-13547	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	300.0: Anion	S	·····		_
Client ID:	PBS	Batch ID: 13547			F	RunNo: 1	9087					
Prep Date:	6/5/2014	Analysis D	ate: 6/	5/2014	5	SeqNo: 5	51440	Units: mg/H	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride		ND	. 1.5									
Sample ID	LCS-13547	SampT	ype: LC	s	Tes	tCode: E	PA Method	300.0: Anion	IS	· · · · · ·		-
Client ID:	LCSS	Batch	ID: 13	547	F	RunNo: 1	9087					
Prep Date:	6/5/2014	Analysis D	ate: 6/	5/2014		SeqNo: 5	51441	Units: mg/M	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride		14	1.5	15.00	0	95.6	90	110				

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Е 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 S
- 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 greater than 2. Р
- RL Reporting Detection Limit

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1406147

WO#:

11-Jun-14

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406147

11-Jun-14

Client:	J & L Landfarm	

Project:	Vadose 2	Zone Repeat Ce	ell 24 5yr Meta	ls				
Sample ID Client ID:	MB-13523 PBS	SampType: Batch ID:	MBLK 13523	Tes	tCode: EPA Method RunNo: 19048	418.1: TPH		
Prep Date:	6/4/2014	Analysis Date:	6/5/2014	·	SeqNo: 550619	Units: mg/Kg		
Analyte Petroleum Hydr	rocarbons, TR	Result PC ND	20 SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Sample ID	LCS-13523	SampType:	LCS	Tes	tCode: EPA Method	418.1: TPH		
Client ID:	LCSS	Batch ID:	13523	. F	RunNo: 19048			
Prep Date:	6/4/2014	Analysis Date:	6/5/2014	·	eqNo: 550620	Units: mg/Kg		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydr	rocarbons, TR	92	20 100.0	0	91.9 80	120		
Sample ID	LCSD-13523	SampType:	LCSD	Tes	Code: EPA Method	418.1: TPH		
Client ID:	LCSS02	Batch ID:	13523	F	RunNo: 19048	· .		
Prep Date:	6/4/2014	Analysis Date:	6/5/2014	S	SeqNo: 550621	Units: mg/Kg		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydi	rocarbons, TR	99	20 100.0	0	98.9 ' 80	120 7.30	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- RL

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Reporting Detection Limit

Client:	J&LI	andfarm									
Project:	Vadose	Zone Repea	at Cell 2	24 5yr Meta	ls						
Sample ID	MB-13514	SamoT	Evne: MI	<u></u>	Tes	tCode: El	PA Method	8021B: Vola	tilos		
	DRS	Date	урс. на Б ID: 43	544	5		0076		(1103		
	PB3	Balci	110. 13	514			5070		_		:
Prep Date:	6/4/2014	Analysis D)ate: 6/	/5/2014	5	eqNo: 5	51209	Units: mg/H	٩		
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	ofluorobenzene	1.0		1.000		103	80	120			
Sample ID	LCS-13514	SampT	Type: LC	;s	Tes	tCode: Ef	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batch	h ID: 13	514	F	RunNo: 1	9076				
Prep Date:	6/4/2014	Analysis D)ate: 6/	5/2014	S	eqNo: 5	51210	Units: mg/F	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.050	1.000	0	110	80	120			
Toluene		1.0	0.050	1.000	0	101	80	120			
Ethylbenzene		1.0	0.050	1.000	0	101	80	120			
Xylenes, Total		3.0	0.10	3.000	0	98.9	80	120			
Surr: 4-Bron	ofluorobenzene	1.1		1.000		108	80	120			
Sample ID	LCS-13564	Samp1	Type: LC	 ;s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batch	h ID: 13	564	F	tunNo: 19	9108				
Prep Date:	6/6/2014	Analysis D)ate: 6/	7/2014	S	3eqNo: 5	52328	Units: %RE	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	1.2		1.000		116	80	120			
Sample ID	MB-13564	SampT	Type: MI	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		<u> </u>
Client ID:	PBS	Batcl	h ID: 13	564	F	tunNo: 1	9108				
Prep Date:	6/6/2014	Analysis D)ate: 6/	7/2014	· S	eqNo: 5	52329	Units: %RE	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

1.1

1.000

E Value above quantitation range

- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit

Surr: 4-Bromofluorobenzene

- 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

107

80

120

- P Sample pH greater than 2.
- RL Reporting Detection Limit

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WO#: 1406147

11-Jun-14

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406147

11-Jun-14

J & L Landfarm

Client:

Project:

Vadose Zone Repeat Cell 24 5yr Metals

Sample ID MB-13546 Client ID: PBS Prep Date: 6/5/2014	SampType: MBLK Batch ID: 13546 Analysis Date: 6/6/2014	TestCode: EPA Method RunNo: 19099 SeqNo: 551739	1 7471: Mercury Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qua
Mercury	ND 0.033		
Sample ID LCS-13546	SampType: LCS	TestCode: EPA Method	1 7471: Mercury
Client ID: LCSS	Batch ID: 13546	RunNo: 19099	
Prep Date: 6/5/2014	Analysis Date: 6/6/2014	SeqNo: 551740	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qua
Mercury	0.17 0.033 0.1667	0 99.6 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 greater than 2.
- RL Reporting Detection Limit

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Limit

WO#: 1406147 *11-Jun-14*

Client:	J & L	Landfarm									
Project:	Vados	se Zone Repea	t Cell 2	4 5yr Meta	ls						
	MB-13541	Sampt	ype: ME	3LK	les		-PA Method	6010B: SOIL	Metals		
Client ID:	PBS	Batch	HD: 13	541	ł	Runno:	19093				
Prep Date:	6/5/2014	Analysis D	ate: 6/	6/2014	5	SeqNo:	551639	Units: mg/H	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10					•			
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30								
Lead		ND	0.25								
Manganese		ND	0.10								
Selenium		ND	2.5								
Silver		ND	0.25								
Zinc		ND	2.5								
Sample ID	LCS-13541	SampT	ype: LC	<u> </u>	Tes	tCode: E	EPA Method	6010B: Soil I	Metals		
Client ID:	LCSS	Batch	ID: 13	541	F	RunNo:	19093				
Prep Date:	6/5/2014	Analysis D	ate: 6/	6/2014	s	SeqNo:	551640	Units: mg/M	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		23	2.5	25.00	0	91.3	80	120			
Barium		23	0.10	25.00	0	92.7	80	120			
Cadmium		23	0.10	25.00	0	90.8	80	120			
Chromium		23	0.30	25.00	0	92.0	80	120			
Copper		24	0.30	25.00	0	97.6	80	120			
Lead		22	0.25	25.00	0	87.5	80	120			
Manganese		23	0.10	25.00	0	92.6	80	120			
Selenium		22	2.5	25.00	0	86.1	80	120			
Silver		4.6	0.25	5 000	ů n	92.8	80	120			
Zinc		22	2.5	25.00	0	89.9	80	120			
	MB-13541	Sampt	ype: ME		les		PA Method	6010B: Soli I	Metals		
Client ID:	PBS	Batch	(1D: 13)	541	. F		19106		<		
Prep Date:	6/5/2014	Analysis D	ate: 6/	//2014	2	seqivo:	552123	Units: mg/r	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		1.9	1.0								
Sample ID	LCS-13541	SampT	ype: LC	s	Tes	tCode: E	EPA Method	6010B: Soil	Metals		
Client ID:	LCSS	Batch	ID: 13	541	F	RunNo: '	19106				
Prep Date:	6/5/2014	Analysis D	ate: 6/	7/2014	S	SeqNo:	552124	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		26	1.0	25.00	0	103	80	120			В
			·····			···					

- 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 greater than 2.
- RL Reporting Detection Limit

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HALL Hall Environmental ENVIRONMENTAL ANALYSIS ALL LABORATORY Website: www.h	il Analysis Labor 4901 Hawkin buquerque, NM 8 5 FAX: 505-345- allenvironmenta	ator, 18 NE 7105 Samp 4107 Leom	ble Log-In Ch	eck List
Client Name: J & L LANDFARM Work Order Number	r: 1406147		RcptNo:	
Received by/date: Logged By: Lindsay Mangin 6/4/2014 8:45:00 AM Completed By: Lindsay Mangin 6/4/2014 9:50:16 AM		روسی میں الیک	······································	
Reviewed By: AS about	. *	0.3.90		×
Chain of Custody	•			
 Custody seals intact on sample bottles? Is Chain of Custody complete? How was the sample delivered? 	Yes □ Yes ☑ <u>FedEx</u>	No 🗍 No 🗍	Not Present 🗹	
Log in			x •	
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	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ⊻	NO L	(<2 or	>12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?	<u> </u>
14. Is it clear what analyses were requested?	Yes M	No 🗌	Obsistent have	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🖵 🏻	Checked by:	
<u>Special Handling (if applicable)</u>		· · ·	•	
16. Was client notified of all discrepancies with this order?	Yes 🗖	No 🗆	na 🗹	
Person Notified: Date: By Whom: Via: Regarding:	eMail []	Phone 🗌 Fax		
Client Instructions:	<u></u>	• • • • • •		·
17. Additional remarks:			· · ·	
18. <u>Cooler Information</u> <u>Cooler No</u> Temp °C Condition Seal Intact Seal No 1 4.2 Good Yes	Seal Date	Signed By		
Page 1 of 1	<u></u>	- <u>-</u>	• <u></u> <u>_</u>	

С	hain-	of-Cu	stody Record	Turn-Around	Time:].	F						it e	2				'A I	
Client:				Standard	🗆 Rush	۱					I A I	El Vs	N V STS	5 1 5 1	CU AF	иг 30	7C R/	14 I 17 ()R	Y
- T 1	1 1	.11.	·····	Project Name	e: 7 out 0 bol	Datt uth	1 1			ww	w.ha	lienv	ironr	nent	al.co	om				-
Mailing	Address	Po Jor		Cell 2	t Syrm	Tak art		49	01 Ha	wkins	NE -	Alb	uque	erqu	e, Ni	M 87	109		•	
PO	Box ?	56 1	Johbs um 88241	Project #:	+	Fer Skip		Τe	el. 505	5-345-0	3975	F	ax :	505-	345-	-4107	7			
Phone	#: 575	- 63	- 5765		i						A	naly	/sis	Req	uest					
email or	r Fax#:	ilrob	9197 Daol-com	Project Mana	ager: SKH	-TABOR	E	(yluc	Ю Ю				([*] 0	s						
QA/QC F	Package: dard		Level 4 (Full Validation)	Dovi	ROBERTS	ON Apportation	s (802	(Gas c	N/OS		(SMI		PO4,S	PCB		·				
Accredi	tation			Sampler:			<u>B</u>	ΡH	ñ	el e	70 S		Š N	3082						
		□ Othe	er	On Ice:	Z Yes	ENGE			SR0	504.	or 82	s	0°°	es / 8		(f				с Г
	(Type)_			Sample 1 em	perature: <u>er</u> 		ATBI	ATB!	28 ((th od	310 0	Vieta	5	ticid	(YO	-<	*			es ()
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO		STEX + A	PH 801	DB (Mei	AH's (8;	RCRA 8 I	vnions (F	081 Pes	260B (V	270 (Sei	Maril			vir Bubbl
6214	0713	soil	cell 24 random select # 1	4 abs	ice		X	ш	-	r <u>–</u>	ш	<u> </u>	₹ X	8	8	80	x		+	
	0733		42			-002	Y			x			X				x			
	07.59		#3			-003	X			x			X				*			
4	0819	1	4 104	4		-00H	K		,	Y			X				×			
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Date:	Time:	Relinquish	ed by: P 1	Received by: /	┶╌╌┱╴	Date Time	Rer	l nark:	 s:		1		<u> </u>				l			
6/3/14	1200	A	fyr	1 H	- tulo	4/ KH MELT	*	Ar	Ba	cd	Cr l	B	E.	. 1)L	N. 1	А	. C	۸.	4.1
Date:	Time:	Relinquish	ed by:	Received by:	~	Date Time		>			-, ,		r e	⊊ µ	P	MΝ		<u>j</u> je	, rig	CN

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 12, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeat Cell 14 5yr Metals

OrderNo.: 1406148

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/4/2014 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 <u>www.hallenvironmental.com</u> 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 1406148 Date Reported: 6/12/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Vadose Zone Repeat Cell 14 5yr Metals **Project:** 1406148-001 Lab ID: Matrix: SOIL Client Sample ID: Cell 14 Random Select #1 Collection Date: 6/2/2014 8:35:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	: NSB
Benzene	ND	0.048	mg/Kg	1	6/5/2014 4:08:36 PM	13514
Toluene	ND	0.048	mg/Kg	1	6/5/2014 4:08:36 PM	13514
Ethylbenzene	ND	0.048	mg/Kg	1	6/5/2014 4:08:36 PM	13514
Xylenes, Total	ND	0.095	mg/Kg	1	6/5/2014 4:08:36 PM	13514
Surr: 4-Bromofluorobenzene	98.9	80-120	%REC	1	6/5/2014 4:08:36 PM	13514
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride	420	30	mg/Kg	20	6/5/2014 3:31:03 PM	13547
EPA METHOD 7471: MERCURY					Analys	: MMD
Mercury	ND	0.033	mg/Kg	1	6/6/2014 2:46:55 PM	13546
EPA METHOD 6010B: SOIL METALS					Analys	ELS
Arsenic	ND	12	mg/Kg	5	6/11/2014 8:44:27 AM	13541
Barium	300	0.20	mg/Kg	2	6/7/2014 2:08:37 PM	13541
Cadmium	ND	0.10	mg/Kg	1	6/7/2014 2:07:22 PM	13541
Chromium	2.5	0.30	mg/Kg	1	6/7/2014 2:07:22 PM	13541
Copper	1.5	0.30	mg/Kg	1	6/7/2014 2:07:22 PM	13541
íron	2400	50	mg/Kg	50	6/7/2014 12:49:04 PM	13541
Lead	ND	0.25	mg/Kg	1	6/7/2014 2:07:22 PM	13541
Manganese	20	0.10	mg/Kg	1	6/7/2014 2:07:22 PM	13541
Selenium	ND	2.5	mg/Kg	1	6/7/2014 2:07:22 PM	13541
Silver	ND	0.25	mg/Kg	1	6/7/2014 2:07:22 PM	13541
Zinc	5.1	2.5	mg/Kg	1	6/7/2014 2:07:22 PM	13541
EPA METHOD 418.1: TPH					Analys	: JME
Petroleum Hydrocarbons, TR	180	20	mg/Kg	1	6/5/2014 12:00:00 PM	13523

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the
	Ε	Value above quantitation range	н	Holding times for prepa
	J	Analyte detected below quantitation limits	ND	Not Detected at the Rep
	0	RSD is greater than RSDlimit	Р	Sample pH greater than

R RPD outside accepted recovery limits

- Spike Recovery outside accepted recovery limits S
- associated Method Blank aration or analysis exceeded
- porting Limit

- 2.
- RL Reporting Detection Limit

Page 1 of 10

Hall Environmental Analy	sis Labora	tory, Inc.		•	Lab Order 1406148 Date Reported: 6/12/20	14
CLIENT: J & L Landfarm Project: Vadose Zone Repeat Cell 14	5yr Metals		Client Sampl Collection J	e ID: Ce Date: 6/2	11 14 Random Select # /2014 8:55:00 AM	2
Lab ID: 1406148-002	Matrix:	SOIL	Received 1	Date: 6/4	/2014 8:45:00 AM	
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES				·.	Analys	t: NSB
Benzene	ND	0.048	mg/Kg	1	6/5/2014 4:37:15 PM	13514
Toluene	ND	0.048	mg/Kg	1	6/5/2014 4:37:15 PM	13514
Ethylbenzene	ND	. 0.048	mg/Kg	1	6/5/2014 4:37:15 PM	13514
Xylenes, Total	ND	0.095	mg/Kg	1	6/5/2014 4:37:15 PM	13514
Surr: 4-Bromofluorobenzene	99.2	80-120	%REC	1	6/5/2014 4:37:15 PM	13514
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride	4800	150	mġ/Kg	100	6/9/2014 6:11:26 PM	`13547
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.033	mg/Kg	1	6/6/2014 2:48:46 PM	13546
EPA METHOD 6010B: SOIL METALS				• .	Analys	t: ELS
Arsenic	ND	4.9	mg/Kg	2	6/6/2014 1:44:31 PM	13541
Barium	140	0.098	mg/Kg	1	6/7/2014 2:09:52 PM	13541
Cadmium	ND	0.098	mg/Kg	1	6/7/2014 2:09:52 PM	13541
Chromium	4.0	0.29	mg/Kg	1	6/7/2014 2:09:52 PM	13541
Copper	2.3	0.29	mg/Kg	1	6/7/2014 2:09:52 PM	13541
Iron	4500	49	mg/Kg	50	6/7/2014 12:50:40 PM	13541
Lead	0.27	0.24	mg/Kg	1	6/7/2014 2:09:52 PM	13541
Manganese	38	0.098	mg/Kg	1	6/7/2014 2:09:52 PM	13541
Selenium	ND	2.4	mg/Kg	1	6/7/2014 2:09:52 PM	13541
Silver	ND	0.24	mg/Kg	1	6/7/2014 2:09:52 PM	13541
Zinc	10	2.4	mg/Kg	1	6/7/2014 2:09:52 PM	13541
EPA METHOD 418.1: TPH				,	Analys	t: JME
Petroleum Hydrocarbons, TR	87	20	mg/Kg	1	6/5/2014 12:00:00 PM	13523

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

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	nod Blank
	Е	Value above quantitation range	H .	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 10
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 10
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	I.	· ·	

Analytical Report

Analytical Report Lab Order 1406148 Date Reported: 6/12/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT:J & L LandfarmProject:Vadose Zone Repeat Cell 14 5yr MetalsLab ID:1406148-003Matrix: SOIL

Client Sample ID: Cell 14 Random Select #3 Collection Date: 6/2/2014 9:30:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.049	mg/Kg	1	6/5/2014 7:00:16 PM	13514
Toluene	ND	0.049	mg/Kg	1	6/5/2014 7:00:16 PM	13514
Ethylbenzene	ND	0.049	mg/Kg	1	6/5/2014 7:00:16 PM	13514
Xylenes, Total	ND	0.098	mg/Kg	1	6/5/2014 7:00:16 PM	13514
Surr: 4-Bromofluorobenzene	101	80-120	%REC	1	6/5/2014 7:00:16 PM	13514
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride	3000	150	mg/Kg	100	6/10/2014 6:02:43 PM	13547
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 2:58:11 PM	13546
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	3.1	2.5	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Barium	47	0.10	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Cadmium	ND	0.10	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Chromium	8.0	0.30	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Copper	2.6	0.30	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Iron	9700	50	mg/Kg	50	6/7/2014 12:52:03 PM	13541
Lead	1.1	0.25	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Manganese	64	0.10	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Selenium	ND	2.5	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Silver	ND	0.25	mg/Kg	1	6/7/2014 2:18:43 PM	13541
Zinc	20	2.5	mg/Kg	1	6/7/2014 2:18:43 PM	13541
EPA METHOD 418.1: TPH					Analys	t: JME
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	6/5/2014 12:00:00 PM	13523

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 10
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 01 10
	R	RPD outside accepted recovery limits	` RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1406148

Date Reported: 6/12/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Lab ID:

Project: Vadose Zone Repeat Cell 14 5yr Metals

1406148-004 Matrix: SOIL

Client Sample ID: Cell 14 Random Select #4 Collection Date: 6/2/2014 9:58:00 AM

Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES		· .		•	Analyst	
Benzene	ND	0.049	mg/Kg	. 1	6/6/2014 12:49:30 PM	13514
Toluene	· ND	0.049	mg/Kg	1	6/6/2014 12:49:30 PM	13514
Ethylbenzene	ND	0.049	mg/Kg	· 1	6/6/2014 12:49:30 PM	13514
Xylenes, Total	ND	0.098	mg/Kg	1	6/6/2014 12:49:30 PM	13514
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	6/6/2014 12:49:30 PM	13514
EPA METHOD 300.0: ANIONS	,				Analyst	: JRR
Chloride	42	30	mg/Kg	20	6/5/2014 4:08:18 PM	13547
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 2:59:56 PM	13546
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	5.0	mg/Kg	2	6/6/2014 1:49:57 PM	13541
Barium	160	0.099	mg/Kg	1	6/7/2014 2:19:59 PM	13541
Cadmium	ND	0.099	mg/Kg	1	6/7/2014 2:19:59 PM	13541
Chromium	4.9	0.30	mg/Kg	1	6/7/2014 2:19:59 PM	13541
Copper	2.7	0.30	mg/Kg	1 '	6/7/2014 2:19:59 PM	13541
lron	5400	50	mg/Kg	50	6/7/2014 12:53:24 PM	13541
Lead	1.5	0.25	mg/Kg 📩	1	6/7/2014 2:19:59 PM	13541
Manganese	52	0.099	mg/Kg	1	6/7/2014 2:19:59 PM	13541
Selenium	ND	2.5	mg/Kg	1	6/7/2014 2:19:59 PM	13541
Silver	ND	0.25	mg/Kg	1	6/7/2014 2:19:59 PM	13541
Zinc	11	2.5	mg/Kg	1	6/7/2014 2:19:59 PM	13541
EPA METHOD 418.1: TPH					Analyst	JME
Petroleum Hydrocarbons, TR	220	20	mg/Kg	1	6/5/2014 12:00:00 PM	13523

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Bla	ink
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exce	eded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Pa	$e^4 of 10$
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			•

WO#: 1406148

12-Jun-14

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J & L Landfarm Vadose Zone Repeat Cell 14 5yr Metals										
Sample ID	MB-13547	SampType:	MBLK	Tes	Code: EPA Method						
Client ID:	PBS	Batch ID:	13547	F							
Prep Date:	6/5/2014	Analysis Date:	6/5/2014	S	GeqNo: 551440	Units: mg/K	٢g				
Analyte		Result PC	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Chloride	· · · · · · · · · · · · · · · · · · ·	ND ŕ	1.5								
Sample ID	LCS-13547	SampType:	LCS	Tes	Code: EPA Method	d 300.0: Anion	IS				
Client ID:	LCSS	Batch ID:	13547	R	tunNo: 19087						
Prep Date:	6/5/2014	Analysis Date:	6/5/2014	S	SeqNo: 551441	Units: mg/Kg					
Analyte		Result PC	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Chloride		14	1.5 15.00	0	95.6 90	110					

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 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 В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1406148

12-Jun-14

Client: Project:	J & L L Vadose	andfarm Zone Repea	ut Cell 1	4 5yr Meta	lls						
Sample ID N Client ID: F Prep Date:	//B-13523 //BS 6/4/2014	SampT Batch Analysis D	ype: ME 1D: 13 ate: 6/	523 5/2014	Tes F	tCode: E RunNo: 1 SeqNo: 5	PA Method 9048 50619	418.1: TPH Units: mg/f	(g		
Analyte Petroleum Hydro	carbons, TR	Result	PQL 20	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID L Client ID: L Prep Date:	.CS-13523 .CSS 6/4/2014	SampType: LCS TestCode: EPA Method 418.1: TPH Batch ID: 13523 RunNo: 19048 Analysis Date: 6/5/2014 SeqNo: 550620 Units: mg/Kg									
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID L Client ID: L Prep Date:	CSD-13523 CSS02 6/4/2014	92 SampT Batch Analysis D	20 ype: LC 1D: 13 ate: 6/	SD 523 5/2014	U Tes	91.9 tCode: E RunNo: 1 SeqNo: 5	80 PA Method 9048 50621	418.1: TPH	<u></u>		
Analyte Petroleum Hydro	carbons, TR	Result 99	PQL 20	SPK value 100.0	SPK Ref Val	%REC 98.9	LowLimit 80	HighLimit 120	%RPD 7.30	RPDLimit 20	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 greater than 2.
- RL Reporting Detection Limit

Page 6 of 10

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Client:J & L IProject:Vadose	Landfarm e Zone Repe	at Cell 1	4 5yr Meta	ls						
Sample ID MB-13514	Samp	Type: ME	BLK	Tes						
Client ID: PBS	Batc	h ID: 13	514	F	RunNo: 1					
Prep Date: 6/4/2014	Analysis [Date: 6/	5/2014	5	SeqNo: 5	51209	Units: mg/l	۲g		
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-13514	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: 13	514	F	RunNo: 1	9076				
Prep Date: 6/4/2014	Analysis [Date: 6/	5/2014	5	SeqNo: 5	51210	Units: mg/f	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	 	0.050	1.000	0	110	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120		2	
Xylenes, Total	3.0	0.10	3.000	0	98.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

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 R
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

12-Jun-14

1406148

WO#:

- Page 7 of 10

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406148

12-Jun-14

Client:	J & L La	ndfarm										
Project:	Vadose 2	Zone Repe	at Cell 1	4 5yr Meta	ls							
Sample ID	MB 12546	Somo]					DA Mathod	7474: Moreu				_
Client ID	ND-13340	Bata	ype. Μια	546	168		PA Wethou	7471. Mercu	ry			
Dren Deter	PB3			040	· ·	Runino, 1	9099	1 1 - 14			. ·	
Prep Date:	6/5/2014	Analysis L	Jate: 6/	6/2014	;	SeqNo: 5	51739	Units: mg/r	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury		ND	0.033				<u> </u>					
Sample ID	LCS-13546	Samp	ype: LC	s	Tes	stCode: E	PA Method	7471: Mercu	ry			
Client ID:	LCSS	Batcl	n ID: 13	546	ſ	RunNo: 1	9099					
Prep Date:	6/5/2014	Analysis [)ate: 6 /	6/2014	;	SeqNo: 5	51740	Units: mg/k	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury		0.17	0.033	0.1667	0	99.6	80	120			,	_
Samala ID	4400440.0024100				= <u> </u>	Codo: E		7474. Молон				
Sample ID	1406148-002AWS	o Sampi	ype: with		165		PA Method	7471: Mercu	ry			
Client ID:	Cell 14 Random	Sel Batci	11D; 13	546	I		a0aa					
Prep Date:	6/5/2014	Analysis L	ate: 6/	6/2014	;	SeqNo: 5	51767	Units: mg/r	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury		0.14	0.033	0.1659	0	82.4	75	125				
Sample ID	1406148-002AMS	D Samp1	ype: MS	SD	Tes	tCode: E	PA Method	7471: Mercu	ry			
Client ID:	Cell 14 Random	Sel Batcl	n ID: 13	546	F	RunNo: 1	9099					
Prep Date:	6/5/2014	Analysis D	ate: 6/	6/2014	;	SeqNo: 5	51770	Units: mg/K	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury		0.13	0.032	0.1631	0	82.1	75	125	2.50	20		
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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 greater than 2.
- RL Reporting Detection Limit

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Client: Project:	J & L La Vadose 2	undfarm Zone Repea	at Cell 1	4 5yr Meta	ls							
Sample ID	MB-13541	SampT	ype: ME	BLK	Tes	TestCode: EPA Method 6010B: Soil Metals						
Client ID:	PBS	Batch	n ID: 13	541	F	RunNo: 1						
Prep Date:	6/5/2014	Analysis D)ate: 6/	6/2014	S	SeqNo: 5	51639	Units: mg/H	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		ND	2.5									
Barium		ND	0.10									
Cadmium		ND	0.10									
Chromium		ND	0.30									
Copper		ND	0.30									
ead		ND	0.25			•						
Manganese		ND	0.10									
Selenium		ND	2.5									
Silver		ND	0.25									
Zinc		ND	2.5									
Sample ID	LCS-13541	SampT	ype: LC	S	Tes	TestCode: EPA Method 6010B: Soil Metals						
Client ID:	LCSS	Batch	541	F	RunNo: 1	9093						
Prep Date:	6/5/2014	Analysis D)ate: 6/	6/2014	S	SeqNo: 5	51640	Units: mg/K	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		23	2.5	25.00	0	91.3	80	120				
Barium		23	0.10	25.00	. 0.	92.7	80	120				
Cadmium		23	0.10	25.00	0	90.8	80	120				
Chromium		23	0.30	25.00	0	92.0	80	120				
Copper		24	0.30	25.00	0	97.6	80	120				
Lead		22	0.25	25.00	0	87.5	80	120				
Manganese		23	0.10	25.00	0	92.6	80	120				
Selenium		22	2.5	25.00	0	86.1	80	120				
Silver		4.6	0.25	5.000	0	92.8	80	120				
Zinc		22	2.5	25.00	0	89.9	80	120				
Sample ID	1406148-002AMS	SampT	ype: MS	3	Tes	tCode: E	PA Method	6010B: Soil	Metals			
Client ID:	Cell 14 Random	Sel Batch	1D: 13	541	F	RunNo: 1	9093					
Prep Date:	6/5/2014	Analysis D	0ate: 6/	6/2014	5	SeqNo: 5	51941	Units: mg/H	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		26	4.8	23.96	0	107	75	125				
Sample ID	1406148-002AMS	D SampT	ype: MS	SD	Tes	tCode: El	PA Method	6010B: Soil	Metals			
Client ID:	Cell 14 Random	Sel Batch	n ID: 13	541	F	RunNo: 1	9093					
Prep Date:	6/5/2014	Analysis D)ate: 6/	6/2014	S	BeqNo: 5	51942	Units: mg/M	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		27	4.8	24.02	0	112	75	125	5.50	20		
Oualifiers								· · • •				

* 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 greater than 2.

RL Reporting Detection Limit

WO#: 1406148 12-Jun-14

Hall	Enviro	nmental	Analysi	s Laborat	tory,	Inc.
			~ ~ ~			

WO#: 1406148

12-Jun-14

Client: Project:	J & L Lar Vadose Z	ndfarm one Repe	at Cell 1	4 5yr Meta	ls		<u></u>						
Sample ID	MB-13541	Samp	Type: ME	BLK	Tes	tCode: E	PA Method	6010B: Soil	Metals				
Client ID:	PBS	Bato	h ID: 13	541	. F	RunNo: 1	9106						
Prep Date:	6/5/2014	Analysis I	Date: 6/	7/2014	5	SeqNo: 5	52123	Units: mg/h	٢g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Iron		1.9	1.0										
Sample ID	LCS-13541	Samp	Type: LC	s ,	Tes	TestCode: EPA Method 6010B: Soil Metals							
Client ID:	LCSS	Batc	h ID: 13	541	F	RunNo: 1	9106						
Prep Date:	6/5/2014	Analysis I	Date: 6/	7/2014	5	GegNo: 5	52124	Units: mg/H	٩				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Iron		26	1.0	25.00	0	103	80	120			В		
Sample ID	1406148-002AMS	Samp	Type: MS	_	Tes	tCode: E	PA Method	6010B: Soil	Metals				
Client ID:	Cell 14 Random S	el Bato	h ID: 13	541	F	RunNo: 1	9106	•.					
Prep Date:	6/5/2014	Analysis I	Date: 6/	7/2014	5	SeqNo: 5	52187	Units: mg/h	٢g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Barium		130	0.096	23.96	135.3	-8.82	75	125			S		
Cadmium		21	0.096	23.96	0	88.0	75	125		ţ			
Chromium		25	0.29	23.96	4.041	87.6	75	125					
Copper		25	0.29	23.96	2.252	96.2	75	125			*		
Lead		19	0.24	23.96	0.2734	77.9	75	125					
Manganese		71	0.096	23.96	38.34	135	75	125			S		
Selenium		18	2.4	23.96	0	74.1	75	125			S		
Silver		4.4	0.24	4.791	0	92.4	75	125					
Zinc	<u> </u>	. 30	2.4	23.96	10.11	83.4	75	125					
Sample ID	1406148-002AMS	Samp	Type: MS	D	Tes	tCode: El	PA Method	6010B: Soil	Metals				
Client ID:	Cell 14 Random S	el Batc	h ID: 13	541	F	RunNo: 1	9106						
Prep Date:	6/5/2014	Analysis [Date: 6/	7/2014	S	SeqNo: 5	52188	Units: mg/k	(g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Barium		150	0.096	24.02	135.3	76.4	75	125	14.3	20			
Cadmium		21	0.096	24.02	0	89.4	75	125	1.83	20			
Chromium		24	0.29	24.02	4.041	82.3	75	125	5.03	20			
Copper		25	0.29	24.02	2.252	96.4	75	125	0.397	20			
Lead		. 18	0.24	24.02	0.2734	75.6	75	125	2.62	20			
Manganese		57	0.096	24.02	38.34	75.8	75	125	22.2	20	R		
Selenium		18	2.4	24.02	0	73.0	75	125	1.26	20	S ·		
Silver		4.5	0.24	4.804	0	93.1	75	125	1.02	20			
Zinc		27	2.4	24.02	10.11	71.4	75	125	9.89	20	S		

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 10 of 10

- P Sample pH greater than 2.
- RL Reporting Detection Limit
| HALL Hall Environmental
ENVIRONMENTAL
ANALYSIS
LABORATORY Webstie: www.h | al Analysis Labor
4901 Hawkin
buquerque, NM 8
5 FAX: 505-345-
allenvironmental | atory
ss NE
17105 Sam
4107
L.com | ple Log-In Cl | neck List |
|---|--|--|----------------------------|-------------------|
| Client Name: J & L LANDFARM Work Order Numbe | r: 1406148 | | RcptNo: | 1 |
| Received by/date: Qe Of 14 | | | | |
| Logged By: Lindsay Mangin 6/4/2014 8:45:00 AM | | Juniy Harry | | |
| Completed By: Lindsay Mangin 6/4/2014 10:00:15 AM | A | Juniy | | |
| Reviewed By: CS OLEOUIN | · · | | | |
| 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? | FedEx | | | |
| login | | | | |
| 4. Was an attempt made to cool the samples? | Yes 🗹 | No 🗌 | | |
| 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 | |
| 12. Does paperwork match bottle labels? | Yes 🗹 | No 🗆 | bottles checked
for pH: | >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?
(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:
Regarding:
Client Instructions: | eMail [] | Phone 🗌 Fax | ln Person | |
| 17. Additional remarks: | | | · | |

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	Yes			

.

Page 1 of 1

1	Chair	n-of-C	ustody Record	Turn-A	Around Ti	ime:			I i				E		it P					
Client	E. 1. 1	adb.	·	St	andard	🗆 Rust	1		60 mar 40			ILL IA1	E V	N V Sts	2 I 7 I r		N P 30:	1EI Rå		NL RY
	<u></u>		· ·	Projec	t Name:	mie. Co	Den A	1 🖿			WW	w.ha	llenv	viron	nent	al.co	om			
Mailin	g Addres	s:		e	ell 14	t 5xr	metals an ++		49()1 Hav	vkins	NE -	Alb	ouque	erque	e, NI	M 87	109		
Po	Box 3	56 #	Hos um 88241	Projec	ct #:	. <u> </u>	per Skip	1	Te	1. 505	345-3	3975	F	- ax	505-:	345-	4107	7		
Phone	# 51	5-631	- 5765									A	naly	/sis	Req	uest				
email QA/Q0	or Fax#: Package	j lcob		Projec	t Manage		P-TABOR	(8021)	Gas only)	O / MRO)		MS)		04,SO4)	PCB's					
Accre	ditation			Samp	er.	DOFFEIS		−₿°	E H	ЪЯ Д		0.51		0 ₂ ,F)82 					
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	D (Type))		Samp	le Tempe	erature: 🖉	12	Ë	E	<u>0</u>		10 or	etals	Ž	cide	F	N-I	4		کر ا
Date	Time	Matrix	Sample Reques	t ID Cont Type	tainer F and #	Preservative Type		EXJ M	BTEX + M	TPH 8015	EDB (Meth	PAH's (831	RCRA 8 M	Anions (P	8081 Pesti	8260B (VO	8270 (Sem	melals		Air Bubble
62	140835	soil	cell 14 random select #	1 (2) 4	ozalez	ice	-001	X		<u> </u>	(x				k		
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Date'		Relinguist	bed by A	Receive	ed by:	·) arks					L				<u> </u>		
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 11, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeat Cell 21 5yr Metals

OrderNo.: 1406149

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/4/2014 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 <u>www.hallenvironmental.com</u> 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 1406149 Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm **Project:** Vadose Zone Repeat Cell 21 5yr Metals 1406149-001 Lab ID: Matrix: SOIL Client Sample ID: Cell 21 Random Select #1 Collection Date: 6/2/2014 7:09:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL O	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analys	t: NSB
Benzene	ND	0.049		mg/Kg	1	6/5/2014 7:57:21 PM	13514
Toluene	ND	0.049		mg/Kg	1	6/5/2014 7:57:21 PM	13514
Ethylbenzene	ND	0.049		mg/Kg	1	6/5/2014 7:57:21 PM	13514
Xylenes, Total	ND	0.097		mg/Kg	1	6/5/2014 7:57:21 PM	13514
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/5/2014 7:57:21 PM	13514
EPA METHOD 300.0: ANIONS						Analys	t: JRR
Chloride	55	30		mg/Kg	20	6/5/2014 4:20:42 PM	13547
EPA METHOD 7471: MERCURY						Analys	t: MMD
Mercury	ND	0.033		mg/Kg	1	6/6/2014 3:01:42 PM	13546
EPA METHOD 6010B: SOIL METALS						Analys	t: ELS
Arsenic	ND	4.9		mg/Kg	2	6/6/2014 1:51:19 PM	13541
Barium	82	0.098		mg/Kg	1	6/7/2014 2:21:13 PM	13541
Cadmium	ND	0.098		mg/Kg	1	6/7/2014 2:21:13 PM	13541
Chromium	4.6	0.29		mg/Kg	1	6/7/2014 2:21:13 PM	13541
Copper	3.2	0.29		mg/Kg	1	6/7/2014 2:21:13 PM	13541
iron	5500	49	в	mg/Kg	50	6/7/2014 12:54:46 PM	13541
Lead	1.3	0.25		mg/Kg	1	6/7/2014 2:21:13 PM	13541
Manganese	64	0.098		mg/Kg	1	6/7/2014 2:21:13 PM	13541
Selenium	ND	2.5		mg/Kg	1	6/7/2014 2:21:13 PM	13541
Silver	ND	0.25		mg/Kg	1	6/7/2014 2:21:13 PM	13541
Zinc	11	2.5		mg/Kg	1	6/7/2014 2:21:13 PM	13541
EPA METHOD 418.1: TPH		•				Analys	t: JME
Petroleum Hydrocarbons, TR	91	20		mg/Kg	1	6/5/2014 12:00:00 PM	13526

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

- 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 S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н ND
 - Not Detected at the Reporting Limit
- Р Sample pH greater than 2.

- Page 1 of 9
- RL Reporting Detection Limit

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Hall	Enviro	nmental	Ana	lysis	Labor	atory, 1	Inc.

Vadose Zone Repeat Cell 21 5yr Metals

CLIENT: J & L Landfarm

1406149-002

Project:

Lab ID:

Analytical Report Lab Order 1406149 Date Reported: 6/11/2014

Client Sample ID: Cell 21 Random Select #2 Collection Date: 6/2/2014 7:28:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.047	mg/Kg	1	6/7/2014 11:17:19 AM	13514
Toluene	ND	0.047	mg/Kg	1	6/7/2014 11:17:19 AM	13514
Ethylbenzene	ND	0.047	mg/Kg	1	6/7/2014 11:17:19 AM	13514
Xylenes, Total	ND	0.095	mg/Kg	1	6/7/2014 11:17:19 AM	13514
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	6/7/2014 11:17:19 AM	13514
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	690	30	mg/Kg	20	6/5/2014 4:33:07 PM	13547
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:07:11 PM	13546
EPA METHOD 6010B: SOIL METALS				,	Analyst	ELS
Arsenic	ND	5.0	mg/Kg	2	6/6/2014 1:52:39 PM	13541
Barium	72	0.099	mg/Kg	1	6/7/2014 2:22:28 PM	13541
Cadmium	ND	0.099	mg/Kg	1	6/7/2014 2:22:28 PM	13541
Chromium	4.3	0.30	mg/Kg	1	6/7/2014 2:22:28 PM	13541
Copper	2.9	0.30	mg/Kg	1	6/7/2014 2:22:28 PM	13541
Iron	5100	50	B mg/Kg	50	6/7/2014 12:56:08 PM	13541
Lead	3.1	0.25	mg/Kg	1	6/7/2014 2:22:28 PM	13541
Manganese	54	0.099	_mg/Kg	1	6/7/2014 2:22:28 PM	13541
Selenium	ND	2.5	ˈmg/Kg	1	6/7/2014 2:22:28 PM	13541
Silver	ND	0.25	_ mg/Kg	1	6/7/2014 2:22:28 PM	13541
Zinc	14	2.5	mg/Kg	1	6/7/2014 2:22:28 PM	13541
EPA METHOD 418.1: TPH		b .			Analyst	JME
Petroleum Hydrocarbons, TR	2500	200	mg/Kg	10	6/5/2014 12:00:00 PM	13526

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.	B	Analyte detected in the associated Method	od Blank
	Ε	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 0
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	1 age 2 01 9
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	1.00	,	

Analytical Report Lab Order 1406149 Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Vadose Zone Repeat Cell 21 5yr Metals **Project:** Lab ID: 1406149-003 Matrix: SOIL Client Sample ID: Cell 21 Random Select #3 Collection Date: 6/2/2014 7:52:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL O	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES			_			Analysi	: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2014 9:23:08 PM	13514
Toluene	ND	0.047		mg/Kg	1	6/5/2014 9:23:08 PM	13514
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2014 9:23:08 PM	13514
Xylenes, Total	ND	0.093		mg/Kg	1	6/5/2014 9:23:08 PM	13514
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/5/2014 9:23:08 PM	13514
EPA METHOD 300.0: ANIONS						Analys	t: JRR
Chloride	160	30		mg/Kg	20	6/5/2014 5:10:20 PM	13547
EPA METHOD 7471: MERCURY						Analys	t: MMD
Mercury	ND	0.032		mg/Kg	1	6/6/2014 3:08:58 PM	13546
EPA METHOD 6010B: SOIL METALS						Analys	ELS
Arsenic	ND	4.9		mg/Kg	2	6/6/2014 1:54:04 PM	13541
Barium	110	0.097		mg/Kg	1	6/7/2014 2:23:44 PM	13541
Cadmium	ND	0.097		mg/Kg	1	6/7/2014 2:23:44 PM	13541
Chromium	4.3	0.29		mg/Kg	1	6/7/2014 2:23:44 PM	13541
Copper	3.0	0.29		mg/Kg	1	6/7/2014 2:23:44 PM	13541
Iron	5100	49	в	mg/Kg	50	6/7/2014 12:57:29 PM	13541
Lead	1.7	0.24		mg/Kg	1	6/7/2014 2:23:44 PM	13541
Manganese	51	0.097		mg/Kg	1	6/7/2014 2:23:44 PM	13541
Selenium	ND	2.4		mg/Kg	1	6/7/2014 2:23:44 PM	13541
Silver	ND	0.24		mg/Kg	1	6/7/2014 2:23:44 PM	13541
Zinc	12	2.4		mg/Kg	1	6/7/2014 2:23:44 PM	13541
EPA METHOD 418.1: TPH						Analys	t: JME
Petroleum Hydrocarbons, TR	69	20		mg/Kg	1	6/5/2014 12:00:00 PM	13526

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

A	I: Comos
Oua	ппегs:

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- Value exceeds Maximum Contaminant Level. Ε Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Page 3 of 9

Analytical Report

Lab Order 1406149

Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:Vadose Zone Repeat Cell 21 5yr MetalsLab ID:1406149-004Matrix: SOIL

Client Sample ID: Cell 21 Random Select #4 Collection Date: 6/2/2014 8:13:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					. Analys	t: NSB
Benzene	ND	0.048	mg/Kg	1	6/5/2014 9:51:44 PM	13514
Toluene	ND	0.048	· mg/Kg	· · -1-	6/5/2014 9:51:44 PM	13514
Ethylbenzene	ND	0.048	mg/Kg	1	6/5/2014 9:51:44 PM	13514
Xylenes, Total	ND .	., · 0.097	mg/Kg	1	6/5/2014 9:51:44 PM	13514
Surr. 4-Bromofluorobenzene	102	80-120	%REC	. 1	6/5/2014 9:51:44 PM	13514
EPA METHOD 300.0: ANIONS		· · · · ·		,	Analys	: JRR
Chloride	54	30	mg/Kg	20	6/5/2014 5:22:45 PM	13547
EPA METHOD 7471: MERCURY					Analys	: MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:10:46 PM	13546
EPA METHOD 6010B: SOIL METALS					Analys	: ELS
Arsenic	ND	4.8	mg/Kg	2	6/7/2014 2:26:12 PM	13541
Barium	76	0.096	mg/Kg	1	6/7/2014 2:24:57 PM	13541
Cadmium	ND	0.096	mg/Kg	1	6/7/2014 2:24:57 PM	13541
Chromium	4.5	0.29	mg/Kg	1	6/7/2014 2:24:57 PM	13541
Copper	2.3	0.29	mg/Kg	1	6/7/2014 2:24:57 PM	13541
iron	4900	48 B	mg/Kg	50	6/7/2014 1:04:10 PM	13541
Lead	1.7	0.24	mg/Kg	1	6/7/2014 2:24:57 PM	13541
Manganese	49	0.096	mg/Kg	1	6/7/2014 2:24:57 PM	13541
Selenium	ND	2.4	mg/Kg	· 1	6/7/2014 2:24:57 PM	13541
Silver	ND	0.24	mg/Kg	<u> </u>	6/7/2014 2:24:57 PM	13541
Zinc	12	2.4	mg/Kg	1	6/7/2014 2:24:57 PM	13541
EPA METHOD 418.1: TPH					Analys	: JME
Petroleum Hydrocarbons, TR	440	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

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

Qualifiers:	٠	Value exceeds Maximum Contaminant Level.	Ŕ	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 4 of 9
	0	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		· · · · · ·

WO#·	1406149
W U#.	1400147

11-Jun-14

J & L Landfarm **Client:**

Project: Vados	e Zone Repeat Cell 21 5yr Met	als	_, _, _, _, _,	
Sample ID MB-13547	SampType: MBLK	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 13547	RunNo: 19087		
Prep Date: 6/5/2014	Analysis Date: 6/5/2014	SeqNo: 551440	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-13547	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 13547	RunNo: 19087		
Prep Date: 6/5/2014	Analysis Date: 6/5/2014	SeqNo: 551441	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	14 1.5 15.00	0 95.6 90	110	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Ε Value above quantitation range

- Analyte detected below quantitation limits J
- 0 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 В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- RL **Reporting Detection Limit**

Page 5 of 9

Client: Project: Sample ID MB- Client ID: PBS Prep Date: 6/4 Analyte Petroleum Hydrocarb Sample ID LCS Client ID: LCS Prep Date: 6/4 Analyte	J & L Land Vadose Zor -13526 S 4/2014 A bons, TR S-13526 SS 4/2014 A	Ifarm ne Repea SampTy Batch Analysis D Result ND SampTy Batch	t Cell 2 ype: MI ID: 13 ate: 6/ PQL 20 ype: LC	21 5yr Meta 3LK 526 5/2014 SPK value	als SPK Ref	TestCode RunNo SeqNo Val %R	: EPA N : 19048 : 55061 EC Lov	lethod 6 wLimit	418.1: TPH Units: mg/I HighLimit	<g< b=""> %RPD</g<>	RPDLimit	Qual
Sample ID MB- Client ID: PBS Prep Date: 6/4. Analyte Petroleum Hydrocarb Sample ID LCS Client ID: LCS Prep Date: 6/4 Analyte	-13526 S 4/2014 A bons, TR S-13526 SS 4/2014 A	SampTy Batch Analysis D Result ND SampTy Batch	ype: MI ID: 13 ate: 6/ PQL 20 ype: LC	BLK 526 5/2014 SPK value	SPK Ref	TestCode RunNo SeqNo Val %R	: EPA N : 19048 : 55061 EC Lov	fethod 6 wLimit	418.1: TPH Units: mg/l HighLimit	Kg %RPD	RPDLimit	Qual
Sample ID LCS Client ID: LCS Prep Date: 6/4 Analyte	S-13526 SS 4/2014 A	SampTy Batch	ype: LC	:S				_				
		Analysis Da	ate: 6/	526 5/2014 SPK value	SPK Ref	RunNo SeqNo Val %Ri	: EPA M : 19048 : 55061 EC Lov	lethod 4 7 WLimit	418.1: TPH Units: mg/I HighLimit	<g< b=""> %RPD</g<>	RPDLimít	Qual
Sample ID LCS Client ID: LCS Prep Date: 6/4.	SD-13526 SS02 4/2014 A	SampTy Batch Analysis Da	ype: LC ID: 13 ate: 6/	5/2014	SPK Pof	TestCode RunNo SeqNo	: EPA N : 19048 : 55061	lethod 4	418.1: TPH Units: mg/l	<g ≪ PPD</g 	PPDI imit	Qual
Petroleum Hydrocarb	bons, TR	97	20	100.0	SPK Ref	<u>vai %R</u>	7.5	80	Hign∟imit 120	<u>%кРD</u> 1.43	20	Quai
	• • • •		-	 	· · · ·					· ·		• • •

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
- S 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
- Р Sample pH greater than 2.
- Reporting Detection Limit RL

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client:	J & L L	andfarm									
Project:	Vadose	Zone Repe	at Cell 2	21 5yr Meta	ls						
Sample ID	MB-13514	SampT	Type: ME	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 13	514	F	RunNo: 1	9076				
Prep Date:	6/4/2014	Analysis E	Date: 6/	5/2014	5	SeqNo: 5	51209	Units: mg/H	(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-Bromo	ofluorobenzene	1.0		1.000		103	80	120			
Sample ID	LCS-13514	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 13	514	F	RunNo: 1	9076				
Prep Date:	6/4/2014	Analysis I)ate: 6/	5/2014	5	SeqNo: 5	51210	Units: mg/H	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.050	1.000	0	110	80	120			
Toluene		1.0	0.050	1.000	0	101	80	120			
Ethylbenzene		1.0	0.050	1.000	0	101	80	120			
Xylenes, Total		3.0	0.10	3.000	0	98.9	80	120			
Surr: 4-Brome	ofluorobenzene	1.1		1.000		108	80	120			
Sample ID	LCS-13564	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 13	564	F	RunNo: 1	9108				
Prep Date:	6/6/2014	Analysis [)ate: 6/	7/2014	5	SeqNo: 5	52328	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brome	ofluorobenzene	1.2		1.000		116	80	120			
Sample ID	MB-13564	Samp	Type: ME	3LK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client (D:	PBS	Batc	h ID: 13	564	F	RunNo: 1	9108	,			
Prep Date:	6/6/2014	Analysis [)ate: 6/	7/2014	5	SeqNo: 5	52329	Units: %RE	с	-	
Analyte	·	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brome	ofluorobenzene	1.1		1.000		107	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 greater than 2.
- RL Reporting Detection Limit

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1.1

11**-**Jun-14

1406149

WO#:

QC SU Hall Er	VIVIARY	al Analy	JRT ysis I	Laborat	ory, Inc.					WO#:	1406149 11-Jun-14
Client: Project:	J & L La Vadose 2	indfarm Zone Repea	t Cell 2	21 5yr Meta	ıls			· · · .			
Sample ID Client ID: Prep Date: Analyte Mercury	MB-13546 PBS 6/5/2014	SampT Batch Analysis D Result ND	ype: MI n ID: 13 Pate: 6/ PQL 0.033	BLK 546 56/2014 SPK value	Te: SPK Ref Val	stCode: RunNo: SeqNo: %REC	EPA Method 19099 551739 LowLimit	7471: Mercury Units: mg/Kg HighLimit %	RPD I	RPDLimit	Qual
Sample ID Client ID: Prep Date:	LCS-13546 LCSS 6/5/2014	SampT Batch Analysis D	ype: LC ID: 13 ate: 6 /	CS 546 /6/2014	Te	stCode: RunNo: SeqNo:	EPA Method 19099 551740	7471: Mercury Units: mg/Kg			
Analyte Mercury		Result 0.17	PQL 0.033	SPK value 0.1667	SPK Ref Val 0	%REC 99.6	LowLimit	HighLimit %	RPD	RPDLimit	Qual
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		-						.)			
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			·	to traje		ŧ.		. :	ſ		
			.,	·		- , -		· · , ·			
Jualifiers: * Value E Value J Analyt O RSD is	exceeds Maximum C above quantitation ra te detected below qua s greater than RSDlir	Contaminant L ange antitation limi mit	evel. ts	• • • • •	B Analyte H Holdin ND Not De P Sample	e detected g times fo tected at pH great	in the associa or preparation of the Reporting I ter than 2.	ted Method Blank or analysis exceeded Limit	I	Page 8	of 9

Ś

S Spike Recovery outside accepted recovery limits

Client: Project:	J & L Lan Vadose Zo	dfarm one Repea	t Cell 2	21 5yr Meta	lls						
Sample ID ME	B-13541	SampT	ype: ME		Tes	tCode: E	PA Method	6010B: Soil M	letals		
Client ID: PE	BS	Batch	ID: 13	541	F	RunNo: 1	9093				
Prep Date: 6	/5/2014	Analysis Da	ate: 6/	6/2014	e e e e e e e e e e e e e e e e e e e	SeqNo: 5	51639	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HiahLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10								
Cadmium		ND	0.10								
Chromium		ND	0.30						•		
Copper		` ND	0.30								
Lead		ND	0.25								
Manganese		ND	0.10								
Selenium		ND	2.5								
Silver		ND	0.25								
Zinc		ND	2.5								
Sample ID LC	S-13541	SampT	ype: LC	:s	Tes	tCode: E	PA Method	6010B: Soil M	Aetals		<u> </u>
Client ID: LC	SS	Batch	ID: 13	541	F	RunNo: 1	9093				
Prep Date: 6	/5/2014	Analysis Di	ate: 6/	6/2014	5	SeqNo: 5	51640	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		23	2.5	25.00	0	91.3	80	120			
Barium		23	0.10	25.00	0	92.7	80	120			
Cadmium		23	0.10	25.00	0	90.8	80	120			
Chromium		23	0.30	25.00	0	92.0	80	120			
Copper		24	0.30	25.00	0	97.6	80	120			
Lead		22	0.25	25.00	0	87.5	80	120		а.	
Manganese		23	0.10	25.00	0	92.6	80	120			
Selenium		22	2.5	25.00	0	86.1	80	120			
Silver		4.6	0.25	5.000	0	92.8	80	120			
Zinc		22	2.5	25.00	0	89.9	80	120			
Sample ID ME	B-13541	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	6010B: Soil N	letals		
Client ID: PB	BS	Batch	ID: 13	541	F	RunNo: 1	9106				
Prep Date: 6	/5/2014	Analysis D	ate: 6/	7/2014	8	SeqNo: 5	52123	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	_Qual
Iron	<u></u>	1.9	1.0								<u></u>
Sample ID LC	S-13541	SampT	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil I	letais		
Client ID: LC	ss	Batch	ID: 13	541	F	RunNo: 1	9106				
Prep Date: 6	/5/2014	Analysis D	ate: 6 /	7/2014	5	SeqNo: 5	52124	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		26	1.0	25.00	0	103	80	120			В

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
- S 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 greater than 2. Р

WO#: 1406149

11-Jun-14

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RL **Reporting Detection Limit**

	allenvironmen	al.com	Denthis	4	
	r. 1406149	· ·	Repino	1	
Received by/date:			-		
Logged By: Lindsay Mangin 6/4/2014 8:45:00 AM		Julyther			
Completed By: Lindsay Mangin 6/4/2014 10:05:08 AM	n	the start of the second s			
Reviewed By: 06 04/14			· .	· .	
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?	<u>FedEx</u>			· .	
Log In	:				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆			
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)?	Yes 🗹	No 🗆		· .	
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗆			
9. Was preservative added to bottles?	Yes 🗌	No 🗹	NA 🗆		
10.VOA viais have zero headspace?	Yes	No 🗆	No VOA Vials 🗹		
11. Were any sample containers received broken?	Yes	No 🗹			
	·	_	# of preserved bottles checked		
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗀	for pH: (<2 or	>12 unless noted)	
13 Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?	·	1
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:		lat ság V.S., esta fra contactar			ž
	.	<u></u>	<u></u>	J	•
1 /. Additional remarks:					
18. Cooler Information	Real Deter	Circuit D.			
Cooler No Temp C Condition Seal Intact Seal No	Seal Date	Signed By		1. 5	

C	Chain	-of-Cι	istody Recor	d 🔤	Turn-Around	Ţime:		1		ļļ				E	NV	тр	0	I MI	EN.	ТАІ	
Client:	464	andhe	w		Standard	🗆 Rush	l					AN	IAL	.YS	SIS	5 L/	AB	OR	AT	OR	Y
- •		r		F	Project Name	zane re	pear of	L/13				ww	w.ha	llenv	ironm	nenta	al.con	ı			
Mailing	Address	:			cell	21 5	r motalson	*=		490	1 Hav	vkins	NE -	Alb	uque	rque	, NM	8710	9		
PO	Box 3	56 H	lobs Nm 88241	F	Project #:			Pri skip		Te	. 505-	345-3	975	F	ax 5	505-3	845-4	107			
Phone	#: 575	-631-	5765				····						A	naly	vsis F	Requ	est				
email c	or Fax#:	وطعماز	1697@ 001.com	<u> </u>	Project Mana	ger: Sett	PTABOR	, 1	,	(<u>À</u>	<u>Š</u>				([†]	<i>"</i>					
QA/QC	Package: ndard		Level 4 (Full Valid	dation)	Jar.	TROBE	RISON	lou!H	s (802	(Gas o	M / 02		SIMS)		PO4,S	PCB:				:	
	litation _AP	🗆 Othe)r		Sampler: £ On location	to the	V □ No		+ TMB	HdT +		04.1	8270 \$		03,NO2	1 8082		Æ			N N
	D (Type)				Sample Tem	erature: 4	2	116-05	ВE	Ш	Ű	7 3 0 7	0 or	etals	N	sides	A S	₽ ,	f		Σ
Date	Time	Matrix	Sample Reque	st ID	Container Type and #	Preservative Type	HEALING 140614		BTEX+MT	BTEX + MT	TPH 8015B	EDB (Metho	PAH's (831	RCRA 8 Me	Anions (FC	8081 Pestic	8260B (VO		Spelan		Air Bubbles
5/2/1	0109	soil	Cell 21 Dardon coler TH	.1	4 2 a bes	ice			X			2	·		x			x			\top
-	67.28			-2	1		-007-		Y						x			x			十
	075			3	-		MB				Ţ				x		-				┿
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			5yr metals on																+		\mp
<u> </u>				Aler Spill	·														\vdash		
			· · · · · · · · · · · · · · · · · · ·		- <u></u>								\vdash			_			+		+
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	· ·								$\left \right $								-	_		$\left - \right $	+
Date: b / 3// 4 Date:	Time: / 26 0 Time:	Relinquist	ed by: 5 June by:		Received by:	6 ol	Dele Time	15	Rem ¥ A:	iarks Barks	2 Cd	G	Cie	Fe	ρ	ь m	la h	4 50	- -	j Zy	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 12, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeat Cell 31 5yr Metals

OrderNo.: 1406154

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/4/2014 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 <u>www.hallenvironmental.com</u> 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 1406154 Date Reported: 6/12/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Vadose Zone Repeat Cell 31 5yr Metals **Project:** Lab ID: 1406154-001 Matrix: SOIL Client Sample ID: Cell 31 Random Select #1 Collection Date: 6/3/2014 10:02:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.047	mg/Kg	1	6/5/2014 10:20:17 PM	13514
Toluene	ND	0.047	mg/Kg	1	6/5/2014 10:20:17 PM	13514
Ethylbenzene	ND	0.047	mg/Kg	1	6/5/2014 10:20:17 PM	13514
Xylenes, Total	ND	0.093	mg/Kg	1	6/5/2014 10:20:17 PM	13514
Surr: 4-Bromofluorobenzene	100	80-120	%REC	1	6/5/2014 10:20:17 PM	13514
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride	210	30	mg/Kg	20	6/5/2014 5:35:10 PM	13547
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:18:42 PM	13549
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	3.5	2.4	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Barium	99	0.097	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Cadmium	ND	0.097	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Chromium	4.5	. 0.29	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Copper	3.2	0.29	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Iron	5400	49	mg/Kg	50	6/7/2014 1:05:34 PM	13542
Lead	0.87	0.24	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Manganese	66	0.097	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Selenium	ND	2.4	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Silver	ND	0.24	mg/Kg	1	6/7/2014 2:27:25 PM	13542
Zinc	11	2.4	mg/Kg	1	6/7/2014 2:27:25 PM	13542
EPA METHOD 418.1: TPH					Analys	t: JME
Petroleum Hydrocarbons, TR	64	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in
	Е	Value above quantitation range	н	Holding times for
	J	Analyte detected below quantitation limits	ND	Not Detected at th
	0	RSD is greater than RSDlimit	Р	Sample pH greater
	R	RPD outside accepted recovery limits	RL	Reporting Detection

S Spike Recovery outside accepted recovery limits

- n the associated Method Blank
- preparation or analysis exceeded

e Reporting Limit

- r than 2.
- ion Limit Reporting L
- Page 1 of 9

Hall Environmental Analys	is Labora	tory, Inc.		••	Lab Order 1406154 Date Reported: 6/12/20	14
CLIENT: J & L Landfarm Project: Vadose Zone Repeat Cell 31 Lab ID: 1406154-002	5yr Metals Matrix:	SOIL	Client Sampl Collection I Received I	e ID: Ce Date: 6/3 Date: 6/4	II 31 Random Select #2 /2014 10:28:00 AM /2014 8:45:00 AM	2
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES				•	Analyst	: NSB
Benzene	ND	0.048	ma/Ka	1	6/5/2014 10:48:50 PM	13514
Toluene	ND	0.048	mg/Kg	1	6/5/2014 10:48:50 PM	13514
Ethylbenzene	ND	0.048	mg/Kg	1	6/5/2014 10:48:50 PM	13514
Xylenes, Total	ND	0.096	mg/Kg	1	6/5/2014 10:48:50 PM	13514
Surr: 4-Bromofluorobenzene	101	80-120	%REC	1	6/5/2014 10:48:50 PM	13514
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	160	30	mg/Kg	20	6/5/2014 5:47:35 PM	13547
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	0.12	0.032	mg/Kg	1	6/6/2014 3:20:31 PM	13549
EPA METHOD 6010B: SOIL METALS				4	Analyst	ELS
Arsenic	3.5	2.4	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Barium	94	0.096	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Cadmium	ND	0.096	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Chromium	4.6	0.29	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Copper	3.1	0.29	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Iron	5300	48	mg/Kg	50	6/7/2014 1:06:54 PM	13542
Lead	0.74	0.24	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Manganese	63	0.096	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Selenium	ND	2.4	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Silver	ND	0.24	mg/Kg	1	6/7/2014 2:29:55 PM	13542
Zinc	12	2.4	mg/Kg	1	6/7/2014 2:29:55 PM	13542
EPA METHOD 418.1: TPH		÷ .			Analyst	: JME
Petroleum Hydrocarbons, TR	37	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

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Analytical Report

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

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Ē	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
4	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of Q
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2	1 age 2 01 9
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits		•	

Analytical Report Lab Order 1406154 Date Reported: 6/12/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L LandfarmProject:Vadose Zone Repeat Cell 31 Syr MetalsLab ID:1406154-003Matrix: SOIL

Client Sample ID: Cell 31 Random Select #3 Collection Date: 6/3/2014 10:50:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qua	ul Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES		,			Analyst	: NSB
Benzene	ND	0.050	mg/Kg	1	6/5/2014 11:17:21 PM	13514
Toluene	ND	0.050	mg/Kg	1	6/5/2014 11:17:21 PM	13514
Ethylbenzene	ND	0.050	mg/Kg	1	6/5/2014 11:17:21 PM	13514
Xylenes, Total	ND	0.10	mg/Kg	1	6/5/2014 11:17:21 PM	13514
Surr: 4-Bromofluorobenzene	99.7	80-120	%REC	1	6/5/2014 11:17:21 PM	13514
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	2000	75	mg/Kg	50	6/9/2014 6:36:15 PM	13547
EPA METHOD 7471: MERCURY					Analyst	: MMD
Mercury	ND	0.16	mg/Kg	5	6/9/2014 1:35:35 PM	13572
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	8.1	2.4	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Barium	170	0.096	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Cadmium	ND	0.096	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Chromium	2.3	0.29	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Copper	2.0	0.29	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Iron	2700	48	mg/Kg	50	6/7/2014 1:08:16 PM	13542
Lead	ND	0.24	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Manganese	27	0.096	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Selenium	ND	2.4	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Silver	ND	0.24	mg/Kg	1	6/7/2014 2:36:11 PM	13542
Zinc	4.8	2.4	mg/Kg	1	6/7/2014 2:36:11 PM	13542
EPA METHOD 418.1: TPH					Analyst	: JME
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

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
- E Value above quantitation rangeJ 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit
- Page 3 of 9
- than 2.
- g Detection Limit

Analytical Report Lab Order 1406154 Date Reported: 6/12/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

1406154-004

Lab ID:

Project: Vadose Zone Repeat Cell 31 5yr Metals

Client Sample ID: Cell 31 Random Select #4 Collection Date: 6/3/2014 11:15:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES	3 . •	· .	·		Analyst	: NSB
Benzene	ND	0.048	mg/Kg	1	6/5/2014 11:45:53 PM	13514
Toluene	ND	0.048	mg/Kg	1	6/5/2014 11:45:53 PM	13514
Ethylbenzene	ND	0.048	mg/Kg	[.] 1	6/5/2014 11:45:53 PM	13514
Xylenes, Total	ND	0.096	mg/Kg	1	6/5/2014 11:45:53 PM	13514
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	6/5/2014 11:45:53 PM	13514
EPA METHOD 300.0: ANIONS			·		Analyst	: JRR
Chloride	660	30	mg/Kg	20	6/5/2014 6:12:24 PM	13547
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:27:52 PM	13549
EPA METHOD 6010B: SOIL META	LS				Analyst	ELS
Arsenic	3.6	2.5	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Barium	140	0.10	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Cadmium	ND	0.10	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Chromium	3.8	0.30	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Copper	2.5	0.30	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Iron	4500	50	mg/Kg	50	6/7/2014 1:09:37 PM	13542
Lead	ND	0.25	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Manganese	48	0.10	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Selenium	ND	2.5	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Silver	ND	0.25	mg/Kg	1	6/7/2014 2:46:22 PM	13542
Zinc	9.1	2.5	mg/Kg	1	6/7/2014 2:46:22 PM	13542
EPA METHOD 418.1: TPH					Analyst	: JME
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

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.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 4 of 9
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	s	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406154

12-Jun-14

J & L Landfarm **Client: Project:** Vadose Zone Repeat Cell 31 5yr Metals Sample ID MB-13547 SampType: MBLK TestCode: EPA Method 300.0: Anions Client ID: PBS Batch ID: 13547 RunNo: 19087 Prep Date: 6/5/2014 Analysis Date: 6/5/2014 SeqNo: 551440 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit %RPD RPDLimit Result PQL HighLimit Qual Analyte Chloride ND 1.5 Sample ID LCS-13547 TestCode: EPA Method 300.0: Anions SampType: LCS Client ID: LCSS Batch ID: 13547 RunNo: 19087 SeqNo: 551441 Prep Date: 6/5/2014 Analysis Date: 6/5/2014 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chloride 14 1.5 15.00 0 95.6 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 greater than 2.
- RL Reporting Detection Limit

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WO#: 1406154

12-Jun-14

Client:J & L LProject:Vadose	andfarm Zone Repeat Cell 31 5yr Meta	als		
Sample ID MB-13526	SampType: MBLK	TestCode: EPA Method	418.1: TPH	
Client ID: PBS	Batch ID: 13526	RunNo: 19048	• ;	
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550616	Units: mg/Kg	• •
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	ND 20		,	
Sample ID LCS-13526	SampType: LCS	TestCode: EPA Method	418.1: TPH	
Client ID: LCSS	Batch ID: 13526	RunNo: 19048	•	
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550617	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	96 20 100.0	0 96.1 80	120	
Sample ID LCSD-13526	SampType: LCSD	TestCode: EPA Method	418.1: TPH	
Client ID: LCSS02	Batch ID: 13526	RunNo: 19048	4 .	
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550618	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	97 20 100.0	0 97.5 80	120 1.43	20

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 greater than 2.
- RL Reporting Detection Limit

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WO#:	1406154

12-Jun-14

Client: J&L	Landfarm									
Project: Vados	e Zone Repea	at Cell 3	1 5yr Meta	ls						
Sample ID MB-13514	SampT	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batcl	h ID: 13	514	F	RunNo: 1	9076				
Prep Date: 6/4/2014	Analysis E	Date: 6 /	5/2014	5	SeqNo: 5	51209	Units: mg/H	٢g		
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-13514	Samp1	Type: LC	S	Tes	tCode: E	PA Method	8021B: Vola	tiles		,
Client ID: LCSS	Batcl	h ID: 13	514	F	RunNo: 1	9076				
Prep Date: 6/4/2014	Analysis E	Date: 6/	5/2014	5	GeqNo: 5	51210	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	110	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
(ylenes, Total	3.0	0.10	3.000	0	98.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Ε Value above quantitation range
- J Analyte detected below quantitation limits
- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

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Client: J & L Landfarm

Project:	Vadose	Zone Repea	t Cell 3	31 5yr Meta	ls						
Sample ID	MB-13549	SampT	ype: ME	3LK		tCode: El	PA Method	7471: Mercu	ry		
Client ID:	PBS	Batch	ID: 13	549	, F	RunNo: 1	9099				
Prep Date:	6/5/2014	Analysis Da	ate: 6 /	6/2014		SeqNo: 5	51741	Units: mg/H	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.033								
Sample ID	LCS-13549	SampT	ype: LC	:S	Tes	tCode: El	PA Method	7471: Mercu	ry		
Client ID:	LCSS	Batch	ID: 13	549	F	RunNo: 1	9099				
Prep Date:	6/5/2014	Analysis Da	ate: 6/	6/2014	S	SeqNo: 5	51742	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.16	0.033	0.1667	0	96.4	80	120			·
Sample ID	MB-13572	SampTy	ype: ME	BLK	Tes	tCode: El	PA Method	7471: Mercu	ry		
Client ID:	PBS	Batch	ID: 13	572	F	RunNo: 1	9124				
Prep Date:	6/6/2014	Analysis Da	ate: 6/	9/2014	5	SeqNo: 5	52840	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
		ND	0.033								
Sample ID	LCS-13572	SampTy	ype: LC	S	Tes	tCode: El	PA Method	7471: Mercu	ry [`]		
Client ID:	LCSS	Batch	ID: 13	572	F	RunNo: 1	9124				
Prep Date:	6/6/2014	Analysis Da	ate: 6/	9/2014	·	SeqNo: 5	52841	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.16	0.033	0.1667	0	98.6	80	120			
Sample ID	1406154-003AM	S SampTy	ype: MS	;;	Tes	tCode: El	PA Method	7471: Mercu	ry		
Client ID:	Cell 31 Random	Sel Batch	ID: 13	572	F	RunNo: 1	9124	``			
Prep Date:	6/6/2014	Analysis Da	ate: 6/	9/2014	S	eqNo: 5	52954	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.18	0.17	0.1692	0	104	75	125			
Sample ID	1406154-003AM	SD SampTy	ype: MS	SD ,	Tes	tCode: El	PA Method	7471: Mørcu	ry		
Client ID:	Cell 31 Random	Sel Batch	ID: 13	572	R	RunNo: 1	9124				
Prep Date:	6/6/2014	Analysis Da	ate: 6/	9/2014	S	eqNo: 5	52955	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.19	0.16	0 1641	0	113	75	125	5.25	20	

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 greater than 2.
- RL Reporting Detection Limit

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copted recovery limits

Client:	J & L Landfarm
Project:	Vadose Zone Repeat Cell 31 5yr Metals

Sample ID	1406154-003AMS	S Samp	Type: MS	;	Tes	tCode: El	PA Method	6010B: Soil	Metals	<u> </u>	
Client ID:	Cell 31 Random	Sel Batc	h ID: 13	542	R	RunNo: 1	9106				
Prep Date:	6/5/2014	Analysis [Date: 6/	7/2014	s	SeqNo: 5	52206	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		30	2.5	24.54	8.084	91.3	75	125			
Barium		160	0.098	24.54	170.9	-38.5	75	125			S
Cadmium		22	0.098	24.54	0	90.5	75	125			
Chromium		22	0.29	24.54	2.348	80.4	75	125			
Copper		26	0.29	24.54	1.973	98.1	75	125			
Lead		19	0.25	24.54	0	76.0	75	125 .			
Manganese		43	0.098	24.54	27.11	66.0	75	125			S
Selenium		17	2.5	24.54	0	70.1	75	125			S
Silver		4.7	0.25	4.908	0	94.7	75	125			
Zinc		23	2.5	24.54	4.751 ⁻	72.9	75	125			S
			_								
Sample ID	1406154-003AMS	D Samp	Type: MS		Test	tCode: El	PA Method	6010B: Soll	Metals		
Sample ID Client ID:	1406154-003AMS Cell 31 Random	SD Samp Sel Batc	Type: MS h ID: 13	542	Tesi	tCode: El	PA Method 9106	6010B: Soll	Metals		
Sample ID Client ID: Prep Date:	1406154-003AMS Cell 31 Random 6/5/2014	SD Samp ⁻ Sel Batc Analysis [Type: MS h ID: 13 Date: 6 /	542 7/2014	Tesi R S	tCode: El tunNo: 1 teqNo: 5	PA Method 9106 52207	6010B: Soil I Units: mg/K	Metals (g		
Sample ID Client ID: Prep Date: Analyte	1406154-003AMS Cell 31 Random 6/5/2014	SD Samp ⁻ Sel Batc Analysis [Result	Type: MS h ID: 13 Date: 6 / PQL	50 542 7/2014 SPK value	Tesi R S SPK Ref Val	tCode: El tunNo: 1 ieqNo: 5 %REC	PA Method 9106 52207 LowLimit	6010B: Soll I Units: mg/K HighLimit	Metals Sg %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Arsenic	1406154-003AMS Cell 31 Random 6/5/2014	SD Samp Sel Batc Analysis [Result 31	Type: MS h ID: 13 Date: 6 / PQL 2.5	50 542 7/2014 SPK value 24.55	Tesi R S SPK Ref Val 8.084	tCode: El tunNo: 1 ieqNo: 5 %REC 93.3	PA Method 9106 52207 LowLimit 75	6010B: Soll I Units: mg/K HighLimit 125	Metals Sg %RPD 1.60	RPDLimit 20	Qual
Sample ID Client ID: Prep Date: Analyte Arsenic Barium	1406154-003AMS Cell 31 Random 6/5/2014	SD Samp Sel Batc Analysis I Result 31 190	Type: MS h ID: 13 Date: 6 / <u>PQL</u> 2.5 0.098	50 542 7/2014 SPK value 24.55 24.55	Tesi R S SPK Ref Val 8.084 170.9	tCode: El tunNo: 1 iseqNo: 5 %REC 93.3 72.4	PA Method 9106 52207 LowLimit 75 75	6010B: Soll I Units: mg/K HighLimit 125 125	Metals 59 %RPD 1.60 15.6	RPDLimit 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Arsenic Barium Cadmium	1406154-003AMS Cell 31 Random 6/5/2014	D Samp [®] Sel Batc Analysis I Result 31 190 23	Type: MS h ID: 13 Date: 6 / <u>PQL</u> 2.5 0.098 0.098	50 542 7/2014 24.55 24.55 24.55	Tesi R SPK Ref Val 8.084 170.9 0	tCode: El tunNo: 1 seqNo: 5 %REC 93.3 72.4 91.7	PA Method 9106 52207 LowLimit 75 75 75 75	6010B: Soll I Units: mg/K HighLimit 125 125 125	Metals 59 %RPD 1.60 15.6 1.41	RPDLimit 20 20 20	Qual S
Sample ID Client ID: Prep Date: Analyte Arsenic Barium Cadmium Chromium	1406154-003AMS Cell 31 Random 6/5/2014	CD Samp [®] Sel Batc Analysis [Result 31 190 23 23	Type: MS h ID: 13 Date: 6 / <u>PQL</u> 2.5 0.098 0.098 0.29	50 542 7/2014 24.55 24.55 24.55 24.55 24.55	Test R SPK Ref Val 8.084 170.9 0 2.348	tCode: El tunNo: 1 ieqNo: 5 %REC 93.3 72.4 91.7 83.5	PA Method 9106 52207 LowLimit 75 75 75 75 75 75	6010B: Soll I Units: mg/K HighLimit 125 125 125 125	Metals 5g %RPD 1.60 15.6 1.41 3.41	RPDLimit 20 20 20 20 20	Qual S
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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 greater than 2.
- RL Reporting Detection Limit

Page 9 of 9

WO#: 1406154

12-Jun-14

Client Name: J & L LANDFARM Work Order Number: 1406154 RopNo: 1 Received by/date:	ENVIRONMENTAL ANALYSIS LABORATORY Website: www.h	4901 Hawkin buguergue, NM 8 75 FAX: 505-345- nallenvironmental	s NE 7105 Sam j 4107 .com	ole Log-In Ch	eck List
Received byton: Q	Client Name: J & L LANDFARM Work Order Numbe	r: 1406154		RcptNo: 1	
Logged By: Lindsay Mangin 6/4/2014 8:45:00 AM	Received by/date: Q[04[12]	·			
Completed By: Lindsay Margin 6/4/2014 10:23:10 AM JuffRed Reviewed By: (L) Old (04/14) JuffRed Chain of Custody 1. Custody seals intact on sample bottles? Yes No Not Present 1. Custody complete? Yes No Not Present No 3. How was the sample detweed? FadEx No No NA 4. Was an attempt made to cool the samples? Yes No NA NA 5. Where all samples received at a temperature of >0° C to 6.0°C Yes No NA Sample(s) in proper container(s)? 7. Sufficient sample volume for indicated test(s)? Yes No NA Sample(s) in proper container(s)? 8. Are samples (except VOA and ONG) properly preserved? Yes No No NA Stottles feed 10. VOA viab have zero headspace? Yes No No VOA Viais Stottles feed 12. Dees paparvoirk match bottle iabels? Yes No Checked by: (< co >12 unless nc 13. Are matices correctly kontified on Chain of Custody? Yes No Adjusted? Adjusted? 14. Is ticlar what analyses were requested?	Logged By: Lindsay Mangin 6/4/2014 8:45:00 AM	:	Julythas		
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Client: Mailing Po Phone	Address	- hons 356 5-63	Holtos	NM 88241	Project Manager: SKIP TATOR					HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request									AL RY					
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 11, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeat Cell 12 5yr Metals

OrderNo.: 1406155

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/4/2014 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 <u>www.hallenvironmental.com</u> 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 1406155 Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

Project:

Lab ID:

1406155-001

CLIENT: J & L Landfarm Vadose Zone Repeat Cell 12 5yr Metals Matrix: SOIL

Client Sample ID: Cell 12 Random Select #1 Collection Date: 6/2/2014 10:38:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL C	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analysi	t: NSB
Benzene	ND	0.047	mg/Kg	1	6/5/2014 3:43:48 PM	13515
Toluene	ND	0.047	mg/Kg	1	6/5/2014 3:43:48 PM	13515
Ethylbenzene	ND	0.047	mg/Kg	1	6/5/2014 3:43:48 PM	13515
Xylenes, Total	ND	0.093	mg/Kg	1	6/5/2014 3:43:48 PM	13515
Surr: 4-Bromofluorobenzene	106	80-120	%REC	1	6/5/2014 3:43:48 PM	13515
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride	220	30	mg/Kg	20	6/9/2014 1:13:39 PM	13585
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:29:44 PM	13549
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	ND	2.5	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Barium	60	0.099	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Cadmium	ND	0.099	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Chromium	5.0	0.30	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Copper	4.2	0.30	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Iron	5700	50	mg/Kg	50	6/7/2014 1:11:00 PM	13542
Lead	1.3	0.25	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Manganese	65	0.099	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Selenium	ND	2.5	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Silver	ND	0.25	mg/Kg	1	6/7/2014 2:52:41 PM	13542
Zinc	12	2.5	mg/Kg	1	6/7/2014 2:52:41 PM	13542
EPA METHOD 418.1: TPH					Analys	t: JME
Petroleum Hydrocarbons, TR	770	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 8
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	
i	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

CLIENT: J & L Landfarm	- T		Client Sample	ID: Ce	II 12 Random Select #	2
Project: Vadose Zone Repeat Cell 12 5 Lab ID: 1406155-002	yr Metals Matrix:	SOIL	Collection D Received D	0 ate: 6/2 0 ate: 6/4	2/2014 11:02:00 AM 2/2014 8:45:00 AM	
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.049	mg/Kg	1	6/5/2014 5:14:34 PM	13515
Toluene	ND	0.049	mg/Kg	1	6/5/2014 5:14:34 PM	13515
Ethylbenzene	ND	0.049	mg/Kg	1	6/5/2014 5:14:34 PM	13515
Xylenes, Total	ND	0.098	mg/Kg	1	6/5/2014 5:14:34 PM	13515
Surr: 4-Bromofluorobenzene	101	80-120	%REC	1	6/5/2014 5:14:34 PM	13515
EPA METHOD 300.0: ANIONS					Analyst	:: JRR
Chloride	ND	30	mg/Kg	20	6/9/2014 2:03:17 PM	13585
EPA METHOD 7471: MERCURY					Analysi	II: MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:35:09 PM	13549
EPA METHOD 6010B: SOIL METALS					Analyst	C ELS
Arsenic	ND	2.4	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Barium	58	0.096	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Cadmium	' ND	0.096	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Chromium	4.3	0.29	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Copper	2.3	0.29	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Iron	5200	48	mg/Kg	50	6/7/2014 1:12:22 PM	13542
Lead	9.3	0.24	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Manganese	59	0.096	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Selenium	ND	ັ 2.4	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Silver	ND	0.24	mg/Kg	1	6/7/2014 2:55:09 PM	13542
Zinc	11	2.4	∵ mg/Kg	1	6/7/2014 2:55:09 PM	13542
EPA METHOD 418.1: TPH					Analyst	: JME
Petroleum Hydrocarbons, TR	46	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

Hall Environmental Analysis Laboratory, Inc.

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 8
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1406155 Date Reported: 6/11/2014

Analytical Report Lab Order 1406155

Hall Environmental Analysis Laboratory, Inc.

Vadose Zone Repeat Cell 12 5yr Metals

CLIENT: J & L Landfarm

Project:

Date Reported: 6/11/2014 Client Sample ID: Cell 12 Random Select #3 Collection Date: 6/2/2014 11:30:00 AM Received Date: 6/4/2014 8:45:00 AM

Lab ID: 1406155-003	Matrix:	SOIL	Receive	d Date: 6/4	/2014 8:45:00 AM	
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	[•] ND	0.049	mg/Kg	1	6/5/2014 5:44:42 PM	13515
Toluene	ND	0.049	mg/Kg	1	6/5/2014 5:44:42 PM	13515
Ethylbenzene	ND	0.049	mg/Kg	1	6/5/2014 5:44:42 PM	13515
Xylenes, Total	ND	0.097	mg/Kg	1	6/5/2014 5:44:42 PM	13515
Surr: 4-Bromofluorobenzene	101	80-120	%REC	1	6/5/2014 5:44:42 PM	13515
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride .	49	30	mg/Kg	20	6/9/2014 2:40:31 PM	13585
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:36:54 PM	13549
EPA METHOD 6010B: SOIL METALS					Analys	t: ELS
Arsenic	ND	2.4	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Barium	69	0.096	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Cadmium	ND	0.096	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Chromium	3.8	0.29	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Copper	3.3	0.29	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Iron	4300	48	mg/Kg	50	6/7/2014 1:13:44 PM	13542
Lead	1.1	0.24	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Manganese	54	0.096	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Selenium	ND	2.4	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Silver	ND	0.24	mg/Kg	1	6/7/2014 2:57:38 PM	13542
Zinc	9.1	2.4	mg/Kg	1	6/7/2014 2:57:38 PM	13542
EPA METHOD 418.1: TPH				•	Analys	t: JME
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

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

Qua	lifiers:
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*

- Value exceeds Maximum Contaminant Level. Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- S 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
- Р Sample pH greater than 2.
- RL Reporting Detection Limit
- Page 3 of 8

CLIENT: J & L Landfarm Vadose Zone Repeat Cell 12 5yr Metals **Project:**

Hall Environmental Analysis Laboratory, Inc.

Lab ID: 1406155-004 Matrix: SOIL

Analyses

Client Sample ID: Cell 12 Random Select #4 Collection Date: 6/2/2014 12:02:00 PM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Bate
EPA METHOD 8021B: VOLATILES		· <u>·</u> ·			Analy	st: NSB
Benzene	ND	0.049	mg/Kg	['] 1	6/5/2014 6:14:51 PM	1351
Toluene	ND	0.049	mg/Kg	1	6/5/2014 6:14:51 PM	1351
Ethylbenzene	ND	0.049	mg/Kg	1	6/5/2014 6:14:51 PM	1351
Xylenes, Total	ND.	0.098	mg/Kg	÷ 1	6/5/2014 6:14:51 PM	1351
Surr: 4-Bromofluorobenzene	95.1	80-120	%REC	1	6/5/2014 6:14:51 PM	1351

EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	250	30	mg/Kg	20	6/9/2014 2:52:55 PM	13585
EPA METHOD 7471: MERCURY					Analyst	: MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:38:38 PM	13549
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Barium	45	0.099	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Cadmium	ND	0.099	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Chromium	6.5	0.30	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Copper	4.2	0.30	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Iron	8600	50	mg/Kg	50	6/7/2014 1:15:04 PM	13542
Lead	1.7	0.25	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Manganese	92	0.099	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Selenium	ND	2.5	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Silver	ND	0.25	mg/Kg	1	6/7/2014 3:00:08 PM	13542
Zinc	17	2.5	mg/Kg	1	6/7/2014 3:00:08 PM	13542

20

mg/Kg

ND

EPA METHOD 418.1: TPH

Petroleum Hydrocarbons, TR

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method B	lank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis exc	eeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 4 of 8
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age + 01 0
	R	RPD outside accepted recovery limits	RĿ	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1406155

Date Reported: 6/11/2014

Batch

13515

13515

13515

13515

13515

13585

13549

13542 13542

13542

13542

13542

13542

13542

13542

13542

13542

13542

13526

Analyst: JME

6/5/2014 12:00:00 PM

1

WO#: 1406155

11-Jun-14

Client:	J & L Landfarm									
Project:	Vadose Zone Rep	eat Cell 1	2 5yr Meta	ls				-		
Sample ID MB-1	3585 Samı	Туре: МІ	3LK	Tes	tCode: EPA	Method	300.0: Anion	5		
Client ID: PBS	Bat	ch ID: 13	585	F	RunNo: 1915	8				
Prep Date: 6/9/2	014 Analysis	Date: 6/	9/2014	8	GeqNo: 5536	64	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC Lo	wLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								
Sample ID LCS-1	3585 Sam	Type: LC	s	Tes	tCode: EPA I	Method	300.0: Anion	s		
Client ID: LCSS	Bat	ch ID: 13	585	F	RunNo: 1915	8				
Prep Date: 6/9/2	014 Analysis	Date: 6/	9/2014	S	GeqNo: 5536	65	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC Lo	wLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.6	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 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
- Р Sample pH greater than 2.
- RL

Page 5 of 8

7

Reporting Detection Limit

WO#: 1406155

11-Jun-14

Client: J & L Landfarm

Project:

Vadose Zone Repeat Cell 12 5yr Metals

Sample ID MB-13526	SampType: MBLK	TestCode: EPA Method	418.1: TPH
Client ID: PBS	Batch ID: 13526	RunNo: 19048	
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550616	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	ND 20	· .	
Sample ID LCS-13526	SampType: LCS	TestCode: EPA Method	418.1: TPH
Client ID: LCSS	Batch ID: 13526	RunNo: 19048	
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550617	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	96 20 100.0	0 96.1 80	120
Sample ID LCSD-13526	SampType: LCSD	TestCode: EPA Method	418.1: TPH
Client ID: LCSS02	Batch ID: 13526	RunNo: 19048	
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550618	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	97 20 100.0	0 97.5 80	120 1.43 20

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 greater than 2.
- RL Reporting Detection Limit

Page 6 of 8

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WO#: 1406155

11**-Jun-**14

Client: J & L Landfarm

Project: Vadose Zone Repeat Cell 12 5yr Metals

F======											
Sample ID	MB-13515	Samp1	Type: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	PBS	Batc	h ID: 13	515	F	RunNo: 1	9061				
Prep Date:	6/4/2014	Analysis E	Date: 6/	5/2014	5	SeqNo: 5	51186	Units: mg/H	٢g		
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	1.0		1.000		104	80	120			
Sample ID	LCS-13515	Samp	ype: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles	·	
Client ID:	LCSS	Batc	h ID: 13	515	F	RunNo: 1	9061		• •		
Prep Date:	6/4/2014	Analysis E	Date: 6/	5/2014	\$	SeqNo: 5	51187	Units: mg/H	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.90	0.050	1.000	0	90.2	80	120			
Toluene		0.88	0.050	1.000	0	88.2	80	120			
Ethylbenzene		0.90	0.050	1.000	0	89.5	80	120			
Xylenes, Total		2.8	0.10	3.000	0	94.0	80	120			
Surr: 4-Brorr	ofluorobenzene	1.1		1.000		108	80	120			
Sample ID	1406155-001AMS	Sampl	ype: MS	<u></u>	Tes	tCode: El	PA Method	8021B: Vola	tiles		<u> </u>
Sample ID Client ID:	1406155-001AMS Cell 12 Random S	Samp1 el Batcl	Type: MS	515	Tes	tCode: El	PA Method 9061	8021B: Vola	tiles		··· ··································
Sample ID Client ID: Prep Date:	1406155-001AMS Cell 12 Random S 6/4/2014	Samp1 el Batcl Analysis [Type: MS h ID: 13 Date: 6 /	515 5/2014	Tes F	tCode: El RunNo: 1 SeqNo: 5	PA Method 9061 51189	8021B: Vola Units: mg/k	tiles (g		<u> </u>
Sample ID Client ID: Prep Date: Analyte	1406155-001AMS Cell 12 Random S 6/4/2014	Samp1 el Batcl Analysis [Result	Fype: MS h ID: 13! Date: 6/ PQL	515 5/2014 SPK value	Tes F SPK Ref Val	tCode: El RunNo: 1 SeqNo: 5 %REC	PA Method 9061 51189 LowLimit	8021B: Vola Units: mg/K HighLimit	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene	1406155-001AMS Cell 12 Random S 6/4/2014	Samp1 el Batcl Analysis I Result 1.1	Fype: MS h ID: 13 Date: 6 PQL 0.047	515 5/2014 SPK value 0.9320	Tes F S SPK Ref Val 0.01907	tCode: El RunNo: 1 SeqNo: 5 %REC 111	PA Method 9061 51189 LowLimit 67.4	8021B: Vola Units: mg/K HighLimit 135	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1406155-001AMS Cell 12 Random S 6/4/2014	SampT el Batcl Analysis E Result 1.1 1.0	Type: MS h ID: 13 Date: 6 PQL 0.047 0.047	515 5/2014 SPK value 0.9320 0.9320	Tes F SPK Ref Val 0.01907 0.01972	tCode: El RunNo: 19 SeqNo: 5 %REC 111 110	PA Method 9061 51189 LowLimit 67.4 72.6	8021B: Vola Units: mg/K HighLimit 135 135	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1406155-001AMS Cell 12 Random S 6/4/2014	SampT el Batcl Analysis [Result 1.1 1.0 1.1	Type: MS h ID: 138 Date: 6/9 PQL 0.047 0.047 0.047	515 5/2014 SPK value 0.9320 0.9320 0.9320	Tes F SPK Ref Val 0.01907 0.01972 0	tCode: El RunNo: 19 SeqNo: 5 %REC 111 110 115	PA Method 9061 51189 LowLimit 67.4 72.6 69.4	8021B: Vola Units: mg/K HighLimit 135 135 143	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1406155-001AMS Cell 12 Random S 6/4/2014	Samp el Batcl Analysis E Result 1.1 1.0 1.1 3.4	Type: MS h ID: 138 Date: 6/8 PQL 0.047 0.047 0.047 0.093	515 5/2014 SPK value 0.9320 0.9320 0.9320 0.9320 2.796	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935	tCode: El RunNo: 19 SeqNo: 5 %REC 111 110 115 119	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8	8021B: Vola Units: mg/K HighLimit 135 135 143 144	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Sur: 4-Bron	1406155-001AMS Cell 12 Random S 6/4/2014	SampT el Batcl Analysis E Result 1.1 1.0 1.1 3.4 1.0	Fype: MS h ID: 138 Date: 6/3 PQL 0.047 0.047 0.047 0.093	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935	tCode: El RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80	8021B: Vola Units: mg/F HighLimit 135 135 143 144 120	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID	1406155-001AMS Cell 12 Random S 6/4/2014 nofluorobenzene 1406155-001AMSE	Samp el Batcl Analysis E Result 1.1 1.0 1.1 3.4 1.0 Samp	Fype: MS h ID: 13: Date: 6/3 PQL 0.047 0.047 0.047 0.093	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320 5D	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935 Tes	tCode: EI RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108 tCode: EI	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80 PA Method	8021B: Vola Units: mg/k HighLimit 135 135 143 144 120 8021B: Vola	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID:	1406155-001AMS Cell 12 Random S 6/4/2014 nofluorobenzene 1406155-001AMSI Cell 12 Random S	SampT el Batcl Analysis I Result 1.1 1.0 1.1 3.4 1.0 O SampT el Batcl	Fype: MS h ID: 138 Date: 6/3 PQL 0.047 0.047 0.047 0.093 Fype: MS h ID: 138	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320 50 515	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935 Tes	tCode: El RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108 tCode: El RunNo: 1	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80 PA Method 9061	8021B: Vola Units: mg/F HighLimit 135 135 143 144 120 8021B: Vola	tiles %RPD tiles	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date:	1406155-001AMS Cell 12 Random S 6/4/2014 nofluorobenzene 1406155-001AMSE Cell 12 Random S 6/4/2014	Samp el Batcl Analysis I Result 1.1 1.0 1.1 3.4 1.0 Samp el Batcl Analysis I	Fype: MS bate: 6/3 PQL 0.047 0.047 0.047 0.047 0.093 Fype: MS b ID: 133 Date: 6/3	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320 515 515 5/2014	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935 Tes F S	tCode: El RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108 tCode: El RunNo: 1 SeqNo: 5	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80 PA Method 9061 51190	8021B: Vola Units: mg/k HighLimit 135 135 143 144 120 8021B: Vola Units: mg/k	tiles %RPD tiles	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Sur: 4-Brom Sample ID Client ID: Prep Date: Analyte	1406155-001AMS Cell 12 Random S 6/4/2014 nofluorobenzene 1406155-001AMSI Cell 12 Random S 6/4/2014	SampT el Batcl Analysis E Result 1.1 1.0 1.1 3.4 1.0 SampT el Batcl Analysis E Result	Fype: MS h ID: 13: Date: 6/3 PQL 0.047 0.047 0.047 0.093 Fype: MS h ID: 13: Date: 6/3 PQL	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320 2.796 0.9320 515 515 5/2014 SPK value	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935 Tes SPK Ref Val	tCode: El RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108 tCode: El RunNo: 1 SeqNo: 5 %REC	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80 PA Method 9061 51190 LowLimit	8021B: Vola Units: mg/k HighLimit 135 135 143 144 120 8021B: Vola Units: mg/k HighLimit	tiles %RPD tiles %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Sur: 4-Bron Sample ID Client ID: Prep Date: Analyte Benzene	1406155-001AMS Cell 12 Random S 6/4/2014 nofluorobenzene 1406155-001AMSE Cell 12 Random S 6/4/2014	SampT el Batcl Analysis [Result 1.1 1.0 1.1 3.4 1.0 SampT el Batcl Analysis [Result 0.97	Fype: MS bate: 6/9 0.047 0.047 0.047 0.093 Fype: MS bate: 6/9 Date: 6/9 0.047	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320 2.796 0.9320 515 5/2014 SPK value 0.9337	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935 Tes SPK Ref Val 0.01907	tCode: El RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108 tCode: El RunNo: 1 SeqNo: 5 %REC 102	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80 PA Method 9061 51190 LowLimit 67.4	8021B: Vola Units: mg/k HighLimit 135 135 143 144 120 8021B: Vola Units: mg/k HighLimit 135	tiles (g %RPD tiles (g %RPD 7.99	RPDLimit RPDLimit 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1406155-001AMS Cell 12 Random S 6/4/2014 nofluorobenzene 1406155-001AMSE Cell 12 Random S 6/4/2014	SampT el Batcl Analysis [Result 1.1 1.0 1.1 3.4 1.0 O SampT el Batcl Analysis [Result 0.97 0.98	Fype: MS bate: 6/9 Date: 6/9 Date: 6/9 0.047 0.047 0.047 0.093 Fype: MS bate: 6/9 Date: 6/9 Date	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320 515 5/2014 SPK value 0.9337 0.9337	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935 Tes SPK Ref Val 0.01907 0.01972	tCode: El RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108 tCode: El RunNo: 1 SeqNo: 5 %REC 102 103	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80 PA Method 9061 51190 LowLimit 67.4 72.6	8021B: Vola Units: mg/K HighLimit 135 135 143 144 120 8021B: Vola 8021B: Vola Units: mg/K HighLimit 135 135	tiles (g %RPD tiles (g %RPD 7.99 6.97	RPDLimit RPDLimit 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1406155-001AMS Cell 12 Random S 6/4/2014 nofluorobenzene 1406155-001AMSE Cell 12 Random S 6/4/2014	Samp el Batcl Analysis E Result 1.1 1.0 1.1 3.4 1.0 Samp el Batcl Analysis E Result 0.97 0.98 1.0	Fype: MS bate: 6/3 PQL 0.047 0.047 0.047 0.093 Fype: MS bate: 6/3 Date: 6/3 Date: 6/3 0.047 0.047 0.047	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320 515 5/2014 SPK value 0.9337 0.9337 0.9337	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935 Tes SPK Ref Val 0.01907 0.01972 0	tCode: El RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108 tCode: El RunNo: 1 SeqNo: 5 %REC 102 103 107	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80 PA Method 9061 51190 LowLimit 67.4 72.6 69.4	8021B: Vola Units: mg/k HighLimit 135 135 143 144 120 8021B: Vola 8021B: Vola Units: mg/k HighLimit 135 135 135	tiles (g %RPD tiles (g %RPD 7.99 6.97 7.80	RPDLimit RPDLimit 20 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1406155-001AMS Cell 12 Random S 6/4/2014 nofluorobenzene 1406155-001AMSE Cell 12 Random S 6/4/2014	Samp el Batcl Analysis I Result 1.1 1.0 1.1 3.4 1.0 Samp el Batcl Analysis I Result 0.97 0.98 1.0 3.1	Fype: MS bate: 6/3 PQL 0.047 0.047 0.047 0.047 0.093 Fype: MS b ID: 133 Date: 6/3 PQL 0.047 0.047 0.047 0.047 0.047	515 5/2014 SPK value 0.9320 0.9320 0.9320 2.796 0.9320 515 5/2014 SPK value 0.9337 0.9337 0.9337 0.9337 2.801	Tes F SPK Ref Val 0.01907 0.01972 0 0.02935 Tes SPK Ref Val 0.01907 0.01972 0 0.02935	tCode: El RunNo: 1 SeqNo: 5 %REC 111 110 115 119 108 tCode: El RunNo: 1 SeqNo: 5 %REC 102 103 107 110	PA Method 9061 51189 LowLimit 67.4 72.6 69.4 70.8 80 PA Method 9061 51190 LowLimit 67.4 72.6 69.4 72.6 69.4 72.6 69.4 72.6 69.4 72.6 69.4 72.6 69.4 72.6 69.4 70.8 80 70.8 80 70 70 80 70 80 70 80 70 80 70 70 80 70 70 80 70 70 80 70 70 80 70 70 80 70 70 80 70 70 80 70 70 70 70 70 70 70 70 70 7	8021B: Vola Units: mg/K HighLimit 135 135 143 144 120 8021B: Vola 8021B: Vola Units: mg/K HighLimit 135 135 143 144	tiles (g %RPD tiles (g %RPD 7.99 6.97 7.80 7.23	RPDLimit RPDLimit 20 20 20 20 20	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 greater than 2.
- RL Reporting Detection Limit

Page 7 of 8

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406155

11-Jun-14

J & L Landfarm

Client:

Project:

Vadose Zone Repeat Cell 12 5yr Metals

Sample ID MB-13549 Client ID: PBS	SampType: MBLK Batch ID: 13549	TestCode: EPA Method RunNo: 19099	7471: Mercury		
Prep Date: 6/5/2014	Analysis Date: 6/6/2014	SeqNo: 551741	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual	
Mercury	ND 0.033				
Sample ID LCS-13549	SampType: LCS TestCode: EPA Method 7471: Mercury				
Client ID: LCSS	Batch ID: 13549	RunNo: 19099			
Prep Date: 6/5/2014	Analysis Date: 6/6/2014	SeqNo: 551742	Units: mg/Kg		
Prep Date: 6/5/2014 Analyte	Analysis Date: 6/6/2014 Result PQL SPK value	SeqNo: 551742 SPK Ref Val %REC LowLimit	Units: mg/Kg HighLimit %RPD RPDLimit	Qual	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- RL **Reporting Detection Limit**

Page 8 of 8

HALL Environmental Analysis Laboratory	Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com		ulory 8 NE 7105 Sam 4107 com	Sample Log-In Check List		
Client Name: J & L LANDFARM	Work Order Number.	1406155		RcptNo:	1	
Received by/date:	6/4/2014 8:45:00 AM 6/4/2014 10:33:45 AM 06/04/14		July Mago July Mago	· · ·		
Chain of Custody						
 Custody seals intact on sample bottles? Is Chain of Custody complete? How was the sample delivered? 	•	Yes □ Yes ☑ FedEx	No 🗌 No 🗍	Not Present 🗹		
Log (n				L.		
4. Was an attempt made to cool the samples?		Yes 🗹	No 🗌			
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) 8. Are samples (except VOA and ONG) propert 9. Was preservative added to bottles?)? y preserved?	Yes ☑ Yes ☑ Yes □	No 🗌 No 🗍 No 🗹	NA 🗌		
10.VOA viais have zero headspace?		Yes 🗌	No 🗌	No VOA Vials 🗹	:	
11. Were any sample containers received broke 12. Does paperwork match bottle labels?	n?	Yes 🖵 Yes 🗹	No 🗹	# of preserved bottles checked for pH:	1. 	
(Note discrepancies on chain of custody)	Custoda	Vac 🕅	No 🗆	(<2 or Adjusted?	>12 unless noted)	
 14. Is it clear what analyses were requested? 15. Were all holding times able to be met? (If no, notify customer for authorization.) 		Yes 🗹 Yes 🔽	No 🗌	Checked by:		
<u>Special Handling (if applicable)</u>					,	
16. Was client notified of all discrepancies with the	his order?	Yes 🗌	No 🗆	NA 🗹		
Person Notified: By Whom: Regarding: Client Instructions:	Date: Via: [] eMail 🔲 F	Phone 🗌 Fax	in Person		

17. Additional remarks:

18. Cooler Information

	oler No	Temp_°C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1		4.2	Good	Yes			

Page 1 of 1
Clients Mailing Po R Phone	Address	-ot-Ci aufar 56 H 5- 6?	ustod m abbs, N 51-57	y Re m 88	cord 241	Proje	Around at Name Cose IIII: ct #:	IIME: Rush E: ZONE re L 5	pæj Ir metal	of 4/10 S. starte 1984 Auto		490 Te)1 Ha	HA Al w awkins 5-345	ALI NAI ww.ha NE 3975	LYS allenv - Alt Anal	NV 513 vironi buqui Fax ysis	FIF FIF FIF FIF FIF FIF FIF FIF FIF FIF	RO al.co e, NI 345- uest	N 30 5 5 5 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	1 E RA '109 7	AL RY	
QA/QC	Package: Indard itation AP		• Leve er		Validation)	Samr On Ic Samr	oler:	Agen. Den Rober Den Rober Derature: 4 Preservative	RTSON V ZINO	Houter Jon	+ MTBE + TMB's (8021)	+ MTBE + TPH (Gas only	015B (GRO / DRO / MR(Method 418.1)	(8310 or 8270 SIMS)	8 Metals	; (F G NO ₃ ,NO ₂ ,PO ₄ ,SO ₂	esticides / 8082 PCB's	(VOA)	Semi-VOA)	ر ج		hles (Y or N)
	Time 108 (101 1130 1202	Matrix soil	Sam Yandey n ut	NIZ NIZ NI N N	quest ID 27 # 1 # 2 # 3 # 4		Hame) and # Hozeks		140(A) -0 -0 -0 -0	No 55 Ci 22 3 	X X X K	BTEX	TPH 8(PAH's	RCRA	A X X Anions	8081 P	8260B	8270 (X X X X Mere		
Date:	Time: /2xx Time:	Relinquist	led by:			Receiv	red by	ado	Date 114 Of Date	Time	Ren	harks	Be	Cd	er c		Fe P	26 1	Apr (Se 1		

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

A.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 11, 2014 Judy Roberts

J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeat Cell 22 5yr Metals

OrderNo.: 1406156

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/4/2014 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 <u>www.hallenvironmental.com</u> 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 1406156

Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Vadose Zone Repeat Cell 22 5yr Metals **Project:** Lab ID: 1406156-001 Matrix: SOIL Client Sample ID: Cell 22 Random Select #1 Collection Date: 6/3/2014 5:38:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analysi	: NSB
Benzene	ND	0.048	mg/Kg	1	6/5/2014 6:44:51 PM	13515
Toluene	ND	0.048	mg/Kg	1	6/5/2014 6:44:51 PM	13515
Ethylbenzene	ND	0.048	mg/Kg	1	6/5/2014 6:44:51 PM	13515
Xylenes, Total	ND	0.097	mg/Kg	1	6/5/2014 6:44:51 PM	13515
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	6/5/2014 6:44:51 PM	13515
EPA METHOD 300.0: ANIONS					Analysi	: JRR
Chloride	120	30	mg/Kg	20	6/9/2014 3:05:19 PM	13585
EPA METHOD 7471: MERCURY					Analyst	: MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:40:23 PM	13549
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Barium	47	0.099	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Cadmium	ND	0.099	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Chromium	5.0	0.30	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Copper	3.3	0.30	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Iron	5700	50	mg/Kg	50	6/7/2014 1:16:27 PM	13542
Lead	1.5	0.25	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Manganese	66	0.099	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Selenium	ND .	2.5	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Silver	ND	0.25	mg/Kg	1	6/7/2014 3:02:39 PM	13542
Zinc	12	2.5	mg/Kg	1	6/7/2014 3:02:39 PM	13542
EPA METHOD 418.1: TPH		. ;			Analyst	: JME
Petroleum Hydrocarbons, TR	970	200	mg/Kg	10	6/5/2014 12:00:00 PM	13526

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

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Qua	micia.

*

- 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
- 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 Page 1 of 8
- Р Sample pH greater than 2.
- Reporting Detection Limit RL

Hall Environmental Analysi		Date Reported: 6/11/20	14			
CLIENT: J & L Landfarm Project: Vadose Zone Repeat Cell 22 5	yr Metals		Client Sampl Collection I	e ID: Ce Date: 6/3	ll 22 Random Select # /2014 6:01:00 AM	2
Lab ID: 1406156-002	Matrix:	SOIL	Received I	Date: 6/4	/2014 8:45:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analysi	: NSB
Benzene	ND	0.048	mg/Kg	1	6/5/2014 7:14:56 PM	13515
Toluene	ND	0.048	mg/Kg	. 1	6/5/2014 7:14:56 PM	13515
Ethylbenzene	ND	0.048	mg/Kg	1	6/5/2014 7:14:56 PM	13515
Xylenes, Total	ND	0.095	mg/Kg	1	6/5/2014 7:14:56 PM	13515
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	6/5/2014 7:14:56 PM	13515
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	^{···} ND	30	mg/Kg	20	6/9/2014 3:17:43 PM	13585
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ŃD	0.033	mg/Kg	1	6/6/2014 3:42:08 PM	13549
EPA METHOD 6010B: SOIL METALS	1				Analyst	ELS
Arsenic	['] ND	2.4	mg/Kg	1	6/7/2014 3:08:57 PM	13542
Barium	65	0.096	mg/Kg	1	6/7/2014 3:08:57 PM	13542
Cadmium	ND	0.096	mg/Kg	1	6/7/2014 3:08:57 PM	13542
Chromium	4.3	0.29	mg/Kg	1	6/7/2014 3:08:57 PM	13542
Copper	2.2	0.29	mg/Kg	1	6/7/2014 3:08:57 PM	13542
iron	5500	48	mg/Kg	50	6/7/2014 1:25:43 PM	13542
Lead	3.8	0.24	mg/Kg	1	6/7/2014 3:08:57 PM	13542
Manganese	58	0.096	mg/Kg	1	6/7/2014 3:08:57 PM	13542
Selenium	ND	2.4	mg/Kg	· 1	6/7/2014 3:08:57 PM	13542
Silver	ND	0.24	mg/Kg	1	6/7/2014 3:08:57 PM	13542
Zinc	11	2.4	mg/Kg	1	6/7/2014 3:08:57 PM	13542
EPA METHOD 418.1: TPH					Analyst	: JME
Petroleum Hydrocarbons, TR	48	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

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

Qualifiers:	•	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 8
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	1 age 2 01 o
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	· •	* · · · ·	

Analytical Report

Lab Order 1406156

Analytical Report Lab Order 1406156

Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT	: J & L Landfarm			Client Sample	ID: Ce	II 22 Random Select #	3
Project:	Vadose Zone Repeat Cell 22 5	yr Metals		Collection D	ate: 6/3	3/2014 6:26:00 AM	
Lab ID:	1406156-003	Matrix:	SOIL	Received D	ate: 6/4	/2014 8:45:00 AM	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA ME	THOD 8021B: VOLATILES					Analysi	NSB
Benzene	e	ND	0.047	mg/Kg	1	6/5/2014 10:46:02 PM	13515
Toluene	•	ND	0.047	mg/Kg	1	6/5/2014 10:46:02 PM	13515
Ethylber	nzene	ND	0.047	mg/Kg	1	6/5/2014 10:46:02 PM	13515
Xylenes	, Total	ND	0.095	mg/Kg	1	6/5/2014 10:46:02 PM	13515
Surr:	4-Bromofluorobenzene	110	80-120	%REC	1	6/5/2014 10:46:02 PM	13515
EPA ME	THOD 300.0: ANIONS					Analys	: JRR
Chloride)	48	30	mg/Kg	20	6/9/2014 3:30:08 PM	13585
EPA ME	THOD 7471: MERCURY					Analys	: MMD
Mercury	,	ND	0.033	mg/Kg	1	6/6/2014 3:43:55 PM	13549
EPA ME	THOD 6010B: SOIL METALS					Analys	ELS
Arsenic		2.8	. 2.5	mg/Kg	1	6/7/2014 3:11:27 PM	13542
Barium		80	0.098	mg/Kg	1	6/7/2014 3:11:27 PM	13542
Cadmiu	m	ND	0.098	mg/Kg	1	6/7/2014 3:11:27 PM	13542
Chromiu	m	3.5	0.29	mg/Kg	1	6/7/2014 3:11:27 PM	13542
Copper	·	3.1	0.29	mg/Kg	. 1	6/7/2014 3:11:27 PM	13542
Iron		4000	49	mg/Kg	50	6/7/2014 1:27:06 PM	13542
Lead		1.2	0.25	mg/Kg	1	6/7/2014 3:11:27 PM	13542
Mangan	ese	56	0.098	mg/Kg	1	6/7/2014 3:11:27 PM	13542
Seleniu	m	ND	. 2.5	mg/Kg	1	6/7/2014 3;11:27 PM	13542
Silver		ND	0.25	mg/Kg	1	6/7/2014 3:11:27 PM	13542
Zinc		8.4	2.5	mg/Kg	1	6/7/2014 3:11:27 PM	13542
EPA ME	THOD 418.1: TPH					Analysi	: JME
Petroleu	um Hydrocarbons, TR	ND	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	Е	Value above quantitation range	н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 8
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 450 5 61 6
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report Lab Order 1406156

Date Reported: 6/11/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:Vadose Zone Repeat Cell 22 5yr MetalsLab ID:1406156-004Matrix: SOIL

Client Sample ID: Cell 22 Random Select #4 Collection Date: 6/3/2014 6:50:00 AM Received Date: 6/4/2014 8:45:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATI	LES				Analysi	: NSB
Benzene	ND	0.046	mg/Kg	1	6/5/2014 11:16:06 PM	13515
Toluene	ND	0.046	mg/Kg	× 1	6/5/2014 11:16:06 PM	13515
Ethylbenzene	ND	0.046	mg/Kg	1	6/5/2014 11:16:06 PM	13515
Xylenes, Total	ND	0.091	mg/Kg	1	6/5/2014 11:16:06 PM	13515
Surr: 4-Bromofluorobenzene	96.8	80-120	%REC	1 ,	6/5/2014 11:16:06 PM	13515
EPA METHOD 300.0: ANIONS	·				Analyst	: JRR
Chloride	160	30	mg/Kg	20	6/9/2014 3:42:33 PM	13585
EPA METHOD 7471: MERCUR	Y				Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	6/6/2014 3:46:17 PM	13549
EPA METHOD 6010B: SOIL ME	ETALS				Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Barium	41	0.099	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Cadmium	ND	0.099	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Chromium	6.3	0.30	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Copper	3.8	0.30	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Iron	7700	49	mg/Kg	50	6/7/2014 1:28:29 PM	13542
Lead	1.7	0.25	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Manganese	91	0.099	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Selenium	ND	2.5	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Silver	ND	0.25	mg/Kg	1	6/7/2014 3:13:56 PM	13542
Zinc	16	2.5	mg/Kg	1	6/7/2014 3:13:56 PM	13542
EPA METHOD 418.1: TPH					Analyst	: JME
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	6/5/2014 12:00:00 PM	13526

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis exceeded	
:	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 4 of	F 8
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	. 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	·
	S	Spike Recovery outside accepted recovery limits			•

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406156

11**-**Jun-14

Client: Project:	J & L Vados	Landfarm e Zone Repea	at Cell 2	2 5yr Meta	lls						
Sample ID	MB-13585	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	300.0: Anion	s		
Prep Date:	PBS 6/9/2014	Batch Analysis D	n ID: 13 Date: 6 /	585 9/2014	H S	Runno: 1 SeqNo: 5	9158 53664	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID	LCS-13585	SampT	ype: LC	s	Tes	tCode: E	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	1D: 13	585	F	RunNo: 1	9158				
Prep Date:	6/9/2014	Analysis D	ate: 6/	9/2014	S	SeqNo: 5	53665	Units: mg/M	íg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	93.6	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 greater than 2.
- RL Reporting Detection Limit

Page 5 of 8

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406156

11-Jun-14

Client:J & L IProject:Vadose	Landfarm e Zone Repeat Cell 22 5yr Meta	als
Sample ID MB-13526	SampType: MBLK	TestCode: EPA Method 418.1: TPH
Client ID: PBS	Batch ID: 13526	RunNo: 19048
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550616 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	ND 20	· · · · · · · · · · · · · · · · · · ·
Sample ID LCS-13526	SampType: LCS	TestCode: EPA Method 418.1: TPH
Client ID: LCSS	Batch ID: 13526	RunNo: 19048
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550617 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	96 20 100.0) 0 96.1 80 120
Sample ID LCSD-13526	SampType: LCSD	TestCode: EPA Method 418.1: TPH
Client ID: LCSS02	Batch ID: 13526	RunNo: 19048
Prep Date: 6/4/2014	Analysis Date: 6/5/2014	SeqNo: 550618 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons TR	97 20 100.0) 0 97.5 80 120 1.43 20

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- E Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 6 of 8

Hall Environmental Analysis Laboratory, Inc.

Client: J&LI Project: Vodece	andfarm	all 22 5xm Mat							
			ais						
Sample ID MB-13515	SampType	MBLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch ID:	13515	F	RunNo: 1	9061				
Prep Date: 6/4/2014	Analysis Date:	6/5/2014	S	SeqNo: 5	51186	Units: mg/K	٢g		
Analyte	Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3enzene	ND 0.0)50							
Toluene	ND 0.0	050							
Ethylbenzene	ND 0.0	050							
Xylenes, Total	ND 0	.10							
Surr: 4-Bromofluorobenzene	1.0	1.000		104		120			
Sample ID LCS-13515	SampType	LCS	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch ID:	13515	F	RunNo: 1	9061				
Prep Date: 6/4/2014	Analysis Date:	6/5/2014	S	GeqNo: 5	51187	Units: mg/K	(g		
Analyte	Result Po	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90 0.0	050 1.000	0	90.2	80	120			
Toluene	0.88 0.0	050 1.000	0	88.2	80	120			
Ethylbenzene	0.90 0.0	050 1.000	0	89.5	80	120			
Xylenes, Total	2.8 0	.10 3.000	0	94.0	80	120			
Surr: 4-Bromofluorobenzene	1.1	1.000		108	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 greater than 2.
- RL Reporting Detection Limit

Page 7 of 8

WO#: 1406156

11-Jun-14

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406156

11-Jun-14

Client: J & L Landfarm

Project: Vadose Zone Repeat Cell 22 5yr Metals

Sample ID MB-13549	SampType: MBLK	TestCode: EPA Method	7471: Mercury	
Client ID: PBS	Batch ID: 13549	RunNo: 19099	• ,	•
Prep Date: 6/5/2014	Analysis Date: 6/6/2014	SeqNo: 551741	Units: mg/Kg	· · ·
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Vercury	ND 0.033			
Sample ID LCS-13549	SampType: LCS	TestCode: EPA Method	7471: Mercury	
	- · · · - · · · · · · · · · · · · · · ·			
Client ID: LCSS	Batch ID: 13549	RunNo: 19099		
Client ID: LCSS Prep Date: 6/5/2014	Batch ID: 13549 Analysis Date: 6/6/2014	RunNo: 19099 SeqNo: 551742	Units: mg/Kg	$\frac{1}{2} \sum_{i=1}^{n} \frac{1}{2} \sum_{i=1}^{n} \frac{1}$
Client ID: LCSS Prep Date: 6/5/2014 Analyte	Batch ID: 13549 Analysis Date: 6/6/2014 Result PQL SPK value	RunNo: 19099 SeqNo: 551742 SPK Ref Val %REC LowLimit	Units: mg/Kg HighLimit %RPD	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

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- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Analysis Laboratory 4901 Hawktns NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com				
Client Name: J & L LANDFARM W	Vork Order Number.	1406156		RcptNo: 1	
Received by/date:	OHE				
Logged By: Lindsay Mangin 6/4/	2014 8:45:00 AM		Julythap		
Completed By: Lindsay Mangin 6/4/	2014 10:44:40 AM		Hugo		
Reviewed By: CS ob	04/14				
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?		<u>FedEx</u>			
Log in					
4. Was an attempt made to cool the samples?		Yes 🗹	No 🗍		
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)?		Yes 🗹	No 🗌		
8. Are samples (except VOA and ONG) properly pro	eserved?	Yes 🗹	No 🗌		
9. Was preservative added to bottles?		Yes 🗌	No 🗹	NAL	

10.VOA vials have zero headspace?	Yes	No 🗌	No VOA Vials 🗹
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗌	for pH: (<2 or >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? (If no, notify customer for authorization.)	Yes 🗹	No 🗖	Checked by:

Special Handling (if applicable)

6. Was client notified of all d	iscrepancies with this order?	Yes 🗋	No 🗌	NA 🗹
Person Notified:		Date:		
By Whom:	· · · · · · · · · · · · · · · · · · ·	Via: 🗌 eMail 🔲 I	Phone 🗌 Fax 📋	In Person
Regarding:				
Client Instructions:		······································	······································	
7. Additional remarks:	· · · · · · · · · · · · · · · · · · ·			
8. Cooler Information				

Ĭ	Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
ľ	1	4.2	Good	Yes		1	

Page 1 of 1

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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

June 23, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Cell 26 Vadose Zone Repeat 5 Yr Metals

OrderNo.: 1406542

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/12/2014 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 <u>www.hallenvironmental.com</u> 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,

Im Cllwell

John Caldwell Supervisor 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1406542

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406542 Date Reported: 6/23/2014

CLIENT: J & L Landfarm

Project:Cell 26 Vadose Zone Repeat 5 Yr MetalsLab ID:1406542-001Matrix: SOIL

Client Sample ID: Cell 26 Random Select #1 Collection Date: 6/10/2014 9:10:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.050		mg/Kg	1	6/13/2014 4:14:55 PM	13664
Toluene	ND	0.050		mg/Kg	1	6/13/2014 4:14:55 PM	13664
Ethylbenzene	ND	0.050		mg/Kg	1	6/13/2014 4:14:55 PM	13664
Xylenes, Total	ND	0.099		mg/Kg	1	6/13/2014 4:14:55 PM	13664
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	6/13/2014 4:14:55 PM	13664
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	150	30		mg/Kg	20	6/12/2014 1:04:06 PM	13663
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.033		mg/Kg	1	6/16/2014 1:13:08 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	8.5	2.4		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Barium	230	0.096		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Cadmium	ND .	0.096		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Chromium	1.5	0.29		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Copper	1.2	0.29		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Iron	1500	9.6	в	mg/Kg	10	6/17/2014 1:09:27 PM	13695
Lead	ND	0.24		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Manganese	14	0.096		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Selenium	ND	2.4		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Silver	ND	0.24		mg/Kg	1	6/14/2014 2:17:53 PM	13695
Zinc	4.4	2.4		mg/Kg	1	6/14/2014 2:17:53 PM	13695
EPA METHOD 418.1: TPH						Analyst	JME
Petroleum Hydrocarbons, TR	29	20		mg/Kg	1	6/13/2014 12:00:00 PM	13659
·							

· .

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Ε	Value above quantitation range	н	Holding times for preparation or analysis	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 10
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

CLIENT: J & L LandfarmProject:Cell 26 Vadose Zone Repeat 5 Yr Metals

Lab ID: 1406542-002 Matrix: SOIL

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1406542

Date Reported: 6/23/2014

Client Sample ID: Cell 26 Random Select #2 Collection Date: 6/10/2014 9:31:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.049	mg/Kg	1	6/13/2014 4:45:15 PM	13664
Toluene	' ND	0.049	mg/Kg	1	6/13/2014 4:45:15 PM	13664
Ethylbenzene	ND	0.049	mg/Kg	1	6/13/2014 4:45:15 PM	13664
Xylenes, Total	ND	0.097	mg/Kg	1	6/13/2014 4:45:15 PM	13664
Surr: 4-Bromofluorobenzene	` 109	80-120	%REC	1	6/13/2014 4:45:15 PM	13664
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	16	1.5	mg/Kg	1	6/13/2014 5:02:34 PM	13663
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	6/16/2014 1:18:29 PM	13709
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	6.6	2.5	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Barium	190	0.10	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Cadmium	ND	0.10	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Chromium	1.9	0.30	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Copper	1.0	ິ 0.30	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Iron	1900	<u>10</u> B	mg/Kg	10	6/17/2014 1:10:48 PM	13695
Lead	ND	0.25	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Manganese	19	0.10	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Selenium	ND	2.5	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Silver	ND	0.25	mg/Kg	1	6/14/2014 2:32:50 PM	13695
Zinc	4.7	['] 2.5	mg/Kg	1	6/14/2014 2:32:50 PM	13695
EPA METHOD 418.1: TPH					Analyst	JME
Petroleum Hydrocarbons, TR	24	20	mg/Kg	1	6/13/2014 12:00:00 PM	13659

Qualifiers:	. *	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
,	E	Value above quantitation range	н	Holding times for preparation or analys	is exceeded
· .	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 10
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 10
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	· · · ·		

Analytical Report Lab Order 1406542 Date Reported: 6/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:Cell 26 Vadose Zone Repeat 5 Yr MetalsLab ID:1406542-003Matrix: SOIL

Client Sample ID: Cell 26 Random Select #3 Collection Date: 6/10/2014 9:49:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analys	t: NSB
Benzene	ND	0.049		mg/Kg	1	6/13/2014 5:15:22 PM	13664
Toluene	ND	0.049		mg/Kg	1	6/13/2014 5:15:22 PM	13664
Ethylbenzene	ND	0.049		mg/Kg	1	6/13/2014 5:15:22 PM	13664
Xylenes, Total	ND	0.098		mg/Kg	1	6/13/2014 5:15:22 PM	13664
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	6/13/2014 5:15:22 PM	13664
EPA METHOD 300.0: ANIONS						Analys	t: JRR
Chloride	16	1.5		mg/Kg	1	6/13/2014 5:14:58 PM	13663
EPA METHOD 7471: MERCURY						Analys	t: MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 1:20:19 PM	13709
EPA METHOD 6010B: SOIL METALS						Analys	t: ELS
Arsenic	7.6	2.5		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Barium	220	0.10		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Cadmium	ND	0.10		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Chromium	2.7	0.30		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Copper	1.4	0.30		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Iron	2800	20	в	mg/Kg	20	6/17/2014 1:12:12 PM	13695
Lead	ND	0.25		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Manganese	18	0.10		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Silver	ND	0.25		mg/Kg	1	6/14/2014 2:35:39 PM	13695
Zinc	6.3	2.5		mg/Kg	1	6/14/2014 2:35:39 PM	13695
EPA METHOD 418.1: TPH						Analys	t: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	1 13659

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
- E Value above quantitation rangeJ 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 (
- P Sample pH greater than 2.
- RL Reporting Detection Limit
- ng Limit Page 3 of 10
- - n Limit

Analytical Report

Lab Order 1406542

Date Reported: 6/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:Cell 26 Vadose Zone Repeat 5 Yr MetalsLab ID:1406542-004Matrix: SOIL

Client Sample ID: Cell 26 Random Select #4 Collection Date: 6/10/2014 10:10:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL C	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	Ó.048		mg/Kg	1	6/13/2014 5:45:32 PM	13664
Toluene	ND	0.048		mg/Kg	1	6/13/2014 5:45:32 PM	13664
Ethylbenzene	ND	0.048		mg/Kg	¹⁷ - 1	6/13/2014 5:45:32 PM	13664
Xylenes, Total	ND ·	0.096		mg/Kg	· 1·	6/13/2014 5:45:32 PM	13664
Surr: 4-Bromofluorobenzene	108	80-120		%REC	. 1	6/13/2014 5:45:32 PM	13664
EPA METHOD 300.0: ANIONS	·					Analyst	: JRR
Chloride	15	1.5		mg/Kg	, 1	6/13/2014 5:27:24 PM	13663
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 1:22:06 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELŞ
Arsenic	7.4	2.5		mg/Kg	1	6/14/2014 2:38:27 PM	13695
Barium	170	0.10		mg/Kg	1	6/14/2014 2:38:27 PM	13695
Cadmium	NÐ	0.10		mg/Kg	1	6/14/2014 2:38:27 PM	13695
Chromium	2.7	0.30		mg/Kg	1	6/14/2014 2:38:27 PM	13695
Copper	1.4	0.30		mg/Kg	1	6/14/2014 2:38:27 PM	13695
iron	2800	20	в	mg/Kg	20	6/17/2014 1:13:34 PM	13695
Lead	ND	0.25		mg/Kg	1	6/14/2014 2:38:27 PM	13695
Manganese	19	0.10		mg/Kg	1	6/14/2014 2:38:27 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/14/2014 2:38:27 PM	13695
Silver	ND	0.25		mg/Kg	1	6/14/2014 2:38:27 PM	13695
Zinc	6.3	2.5		mg/Kg	1	6/14/2014 2:38:27 PM	13695
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	26	20		mg/Kg	1	6/13/2014 12:00:00 PM	13659

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	· · .	В	Analyte detected in the associated Method Blank	
	Е	Value above quantitation range		Н	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits		ND	Not Detected at the Reporting Limit Page 4 of 10	٥
	0	RSD is greater than RSDImit		P	Sample pH greater than 2.	Č
	R	RPD outside accepted recovery limits	°., ••	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits				

WO#: 1406542

23-Jun-14

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J & L Cell 2	Landfarm 6 Vadose Zone R	epeat 5 Yr Me	tals					
Sample ID Client ID:	MB-13663 PBS	SampType: Batch ID:	MBLK 13663	Tes F	tCode: EPA Metho RunNo: 19245	d 300.0: Anior	IS		
Prep Date:	6/12/2014	Analysis Date:	6/12/2014		eqNo: 556437	Units: mg/k	٢g		
Analyte	_	Result PC	L SPK value	SPK Ref Val	%REC LowLimi	t HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5						
Sample ID	LCS-13663	SampType:	LCS	Tes	tCode: EPA Metho	d 300.0: Anion	S		
Client ID:	LCSS	Batch ID:	13663	F	RunNo: 19245				
Prep Date:	6/12/2014	Analysis Date:	6/12/2014	S	SeqNo: 556438	Units: mg/k	(g		
Analyte	,	Result PC	L SPK value	SPK Ref Val	%REC LowLimi	t HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5 15.00	. 0	95.1 90) 110			

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
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- **Reporting Detection Limit**

Page 5 of 10

RL

Hall Environmental Analysis Laboratory, Inc.

23-Jun-14

Client: Project:	J & L L: Cell 26	andfarm Vadose Zone	e Repe	at 5 Yr Mei	tals						
Sample ID MB	-13659	SampTy	pe: ME	BLK	Tes	tCode: El	PA Method	418.1: TPH			
Client ID: PBS	8	Batch	ID: 13	659	F	RunNo: 1	9206	,	•		
Prep Date: 6/1	12/2014	Analysis Da	ate: 6/	12/2014	S	SeqNo: 5	55439	Units: mg/H	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarl	bons, TR	ND	20								
Sample ID LCS	 6-13659	SampTy	pe: LC	s	Tes	tCode: El	PA Method	418.1: TPH			
Client ID: LCS	S \$	Batch	ID: 13	659	F	RunNo: 1	9206	•			
Prep Date: 6/1	12/2014	Analysis Da	nte: 6 /	12/2014	S	eqNo: 5	55440	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarl	bons, TR	92	20	100.0	0	92.3	80	120			
Sample ID LCS	SD-13659	SampTy	pe: LC	SD	Tes	tCode: El	PA Method	418.1: TPH			
Client ID: LCS	SS02	Batch	ID: 13	659	·F	RunNo: 1	9206		•		
Prep Date: 6/1	2/2014	Analysis Da	ite: 6 /	12/2014	S	eqNo: 5	55441 -	Units: mg/H	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocart	bons, TR	100	20	100.0	0	101	80	120	8.83	20	

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 greater than 2.
- RL Reporting Detection Limit

Page 6 of 10

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	J & L Lai	ndfarm									
Project:	Cell 26 V	adose Zoi	ne Repe	at 5 Yr Mei	als		-				
Sample ID	MB-13664	Samp	Type: ME	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 13	664	F	RunNo: 1	9246				
Prep Date:	6/12/2014	Analysis [Date: 6/	13/2014	5	SeqNo: 5	57176	Units: mg/ I	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			۰					
Surr: 4-Bron	nofluorobenzene	1.1		1.000	<u>·</u>	111	80	120			
Sample ID	LCS-13664	Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 13	664	F	RunNo: 1	9246				
Prep Date:	6/12/2014	Analysis [Date: 6/	13/2014	5	SeqNo: 5	57177	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.93	0.050	1.000	0	93.1	80	120			
Toluene		0.91	0.050	1.000	0	91.2	80	120			
Ethylbenzene		0.94	0.050	1.000	0	93.7	80	120			
Xylenes, Total		2.9	0.10	3.000	0	97.0	80	120			
Surr: 4-Bron	nofluorobenzene	1.1		1.000		106	80	120			
Sample ID	1406542-001AMS	Samp	Type: MS		Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	Cell 26 Random S	el Batc	h ID: 13	664	F	RunNo: 1	9246				
Prep Date:	6/12/2014	Analysis [Date: 6/	13/2014	S	SeqNo: 5	57179	Units: mg/I	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.97	0.050	0.9911	0	98.1	67.4	135			
Toluene		0.97	0.050	0.9911	0.02066	95.6	72.6	135			
Ethylbenzene		0.99	0.050	0.9911	0.02314	97,9	69.4	143			
Xylenes, Total		3.1	0.099	2.973	0.05531	102	70.8	144			
Surr: 4-Brom	nofluorobenzene	1.1		0.9911		112	80	120	·		
Sample ID	1406542-001AMS	D Samp	Type: MS	SD	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	Cell 26 Random S	el Batc	h ID: 13	664	F	RunNo: 1	9246				
Prep Date:	6/12/2014	Analysis [Date: 6/	13/2014	5	SeqNo: 5	57181	Units: mg/I	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.97	0.050	0.9950	0	97.7	67.4	135	0.00915	20	
Toluene		0.98	0.050	0.9950	0.02066	96.9	72.6	135	1.68	20	
Ethylbenzene		1.0	0.050	0.9950	0.02314	98. 9	69.4	143	1.39	20	
Xvlenes, Total		3.1	0.10	2.985	0.05531	103	70.8	144	1.81	20	

Qualifiers:

Xylenes, Total

Surr: 4-Bromofluorobenzene

* Value exceeds Maximum Contaminant Level.

3.1

1.1

2.985

0.9950

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 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 В
- Holding times for preparation or analysis exceeded Н

80

120

0

ND Not Detected at the Reporting Limit

115

- Sample pH greater than 2. Р
- RL Reporting Detection Limit

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23-Jun-14

1406542

WO#:

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WO#: 1406542

23-Jun-14

Project: Cell 26 Vaubse Zohe Repeat 5 YF Metals Sample ID MB-13709 SampType: MBLK TestCode: EPA Method 7471: Mercury Client ID: PBS Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557827 Units: mg/Kg Analyte Result POL SPK value SPK Value SeqNo: 557827 Units: mg/Kg Analyte Result POL SPK value SPK Value SeqNo: 557828 Units: mg/Kg Sample ID LCS-13709 SampType: LCS TestCode: EPA Method 7471: Mercury Client ID: LCSS Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 SeqNo: 557828 Units: mg/Kg Analyte Result POL SPK value SPK Value SeqNo: 557830 Units: mg/Kg Analyte Result POL SPK value SeqNo: 557830 Units: mg/Kg Analyte <	Sample ID Client ID: Prep Date Analyte Mercury Sample ID Client ID: Prep Date Analyte Mercury
Sample ID MB-13709 SampType: MBLK TestCode: EPA Method 7471: Mercury Client ID: PBS Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557827 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury ND 0.033	Sample ID Client ID: Prep Date Analyte Mercury Sample ID Client ID: Prep Date Analyte
Client ID: PBS Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557827 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury ND 0.033	Client ID: Prep Date Analyte Mercury Sample ID Client ID: Prep Date Analyte
Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557827 Units: mg/Kg Analyte Result PQL SPK value SPK ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury ND 0.033	Prep Date Analyte Mercury Sample ID Client ID: Prep Date Analyte
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury ND 0.033	Analyte Mercury Sample ID Client ID: Prep Date Analyte
Mercury ND 0.033 Sample ID LCS-13709 SampType: LCS TestCode: EPA Method 7471: Mercury Client ID: LCSS Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557828 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.17 0.033 0.1667 0 102 80 120 Sample ID 1406542-001BMS SampType: MS TestCode: EPA Method 7471: Mercury Client ID: Cell 26 Random Sel Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557830 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Limit Qua	Mercury Sample ID Client ID: Prep Date Analyte Mercury
Sample IDLCS-13709SampType:LCSTestCode:EPA Method 7471:MercuryClient ID:LCSSBatch ID:13709RunNo:19298Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557828Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.170.0330.1667010280120100	Sample ID Client ID: Prep Date Analyte
Client ID: LCSS Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557828 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.17 0.033 0.1667 0 102 80 120 Sample ID 1406542-001BMS SampType: MS TestCode: EPA Method 7471: Mercury Client ID: Cell 26 Random Sel Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557830 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.14 0.033 0.1685 0.006718 76.5 75 125 Sample ID 1406542-001BMSD SampType: MSD TestCode: EPA Method 7471: Mercury	Client ID: Prep Date Analyte
Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557828Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.170.0330.1667010280120120Sample ID1406542-001BMSSampType:MSTestCode:EPA Method 7471:MercuryClient ID:Cell 26 Random SelBatch ID:13709RunNo:19298Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557830Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.140.0330.16850.00671878.575125125Sample ID1406542-001BMSDSampType:MSDTestCode:EPA Method 7471:MercuryClient ID:Cell 26 Random SelBatch ID:13709RunNo:19298Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557831Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.130.0320.15930.00671879.6751254.0620	Prep Date Analyte
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.17 0.033 0.1667 0 102 80 120<	Analyte
Mercury 0.17 0.033 0.1667 0 102 80 120 Sample ID 1406542-001BMS SampType: MS TestCode: EPA Method 7471: Mercury Client ID: Cell 26 Random Sel Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557830 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.14 0.033 0.1685 0.006718 78.5 75 125 Sample ID 1406542-001BMSD SampType: MSD TestCode: EPA Method 7471: Mercury Client ID: Cell 26 Random Set Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557831 Units: mg/Kg Analyte Result PQL SPK value	Mercury
Sample ID1406542-001 BMSSampType:MSTestCode:EPA Method7471:MercuryClient ID:Cell 26 Random SelBatch ID:13709RunNo:19298Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557830Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.140.0330.16850.00671878.575125125Sample ID1406542-001BMSDSampType:MSDTestCode:EPA Method 7471:MercuryClient ID:Cell 26 Random SelBatch ID:13709RunNo:19298Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557831Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.130.0320.15930.00671879.6751254.0620	morodry
Client ID: Cell 26 Random Sel Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557830 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.14 0.033 0.1685 0.006718 78.5 75 125	Sample ID
Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557830Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.140.0330.16850.00671878.575125125125Sample ID1406542-001BMSDSampType:MSDTestCode:EPA Method 7471:MercuryClient ID:Cell 26 Random SelBatch ID:13709RunNo:19298Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557831Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.130.0320.15930.00671879.6751254.0620	Client ID:
AnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.140.0330.16850.00671878.575125125125Sample ID1406542-001BMSDSampType:MSDTestCode:EPA Method 7471:MercuryClient ID:Cell 26 Random SelBatch ID:13709RunNo:19298Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557831Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.130.0320.15930.00671879.6751254.0620	Prep Date
Mercury 0.14 0.033 0.1685 0.006718 78.5 75 125 Sample ID 1406542-001BMSD SampType: MSD TestCode: EPA Method 7471: Mercury Client ID: Cell 26 Random Sel Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557831 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.13 0.032 0.1593 0.006718 79.6 75 125 4.06 20	Analyte
Sample ID 1406542-001BMSD SampType: MSD TestCode: EPA Method 7471: Mercury Client ID: Cell 26 Random Sel Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557831 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.13 0.032 0.1593 0.006718 79.6 75 125 4.06 20	Mercury
Client ID: Cell 26 Random Sel Batch ID: 13709 RunNo: 19298 Prep Date: 6/16/2014 Analysis Date: 6/16/2014 SeqNo: 557831 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Mercury 0.13 0.032 0.1593 0.006718 79.6 75 125 4.06 20	Sample ID
Prep Date:6/16/2014Analysis Date:6/16/2014SeqNo:557831Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.130.0320.15930.00671879.6751254.0620	Client ID:
AnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualMercury0.130.0320.15930.00671879.6751254.0620	Prep Date
Mercury 0.13 0.032 0.1593 0.006718 79.6 75 125 4.06 20	Analyte
	Mercury
Qualifiers:	

Е Value above quantitation range

- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Sample pH greater than 2. Р

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RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J&LL Cell 26	andfarm Vadose Zor	ne Rene	at 5 Vr Mei	als						
		Samol				tCode: El	PA Method	6010B: Soil	Motals	·	
	ND-13035	Batal	урс. ин Б. Г. 49	50 <i>5</i>	100			00100.3011	nclais		
	PB3	Balci	110. 13	090	Г	Kunino. Ta					
Prep Date:	6/13/2014	Analysis D	Date: 6/	14/2014	S	SeqNo: 5	57923	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5		-						
Barium		ND	0.10								
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30								
Lead		ND	0.25								
Manganese		· ND	0.10								
Selenium		ND	2.5		•						
Silver		. ND	0.25								
Zinc		ND	2.5								
Sample ID	LCS-13695	SampT	ype: LC		Tes	tCode: El	PA Method	6010B: Soil I	Metals		
Client ID:	LCSS	Batcl	h ID: 13	695	F	RunNo: 1	9303				
Prep Date:	6/13/2014	Analysis D	Date: 6/	14/2014	S	SeqNo: 5	57924	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arseniç		24	2.5	25.00	0	95.8	80	120	_		
Barium		24	0.10	25.00	0	94.9	80	120			
Cadmium		24	0.10	25.00	0	94.6	80	120			
Chromium		24	0.30	25.00	0	95.2	80	120			
Copper		25	0.30	25.00	0	101	80	120			
Lead		23	0.25	25.00	0	91.4	80	120			
Manganese		24	0.10	25.00	0	95.1	80	120			
Selenium		23	2.5	25.00	0	91.1	80	120			
Silver		4.8	0.25	5.000	0	96.8	80	120			
Zinc		23	2.5	25.00	0	92.4	80	120		,	
Sample ID	1406542-001BM	s SampT	Гуре: МS		Tes	tCode: El	PA Method	6010B: Soil	Vetals		
Client ID:	Cell 26 Random	Sel Batcl	h ID: 13	695	F	RunNo: 1	9303				
Prep Date:	6/13/2014	Analysis D	Date: 6/	14/2014	\$	SeqNo: 5	57928	Units: mg/M	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		30	2.4	24.17	8.527	89.6	75	125			
Barium		230	0.097	24.17	228.0	26.3	75	125			S
Cadmium		21	0.097	24.17	0	88.3	75	125			
Chromium		21	0.29	24.17	1.495	79.9	75	125			
Copper		24	0.29	24.17	1.247	95.1	75	125			
Lead		17	0.24	24.17	0	71.8	75	125			S
Manganese		36	0.097	24.17	14.08	88.8	75	125			

Qualifiers:

Selenium

* Value exceeds Maximum Contaminant Level.

17

2.4

24.17

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

75

125

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

68.9

P Sample pH greater than 2.

0

RL Reporting Detection Limit

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s

23-Jun-14

1406542

WO#:

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406542

23-Jun-14

Sample ID 1406542-001BMS SampType: MS TestCode: EPA Method 6010B: Soil Metals Client ID: Cell 26 Random Sel Batch ID: 13995 RunNo: 13903 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557928 Units: mg/kg Analyte Result POL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Silver 4.2 0.24 4.834 0 86.3 75 125 S Sample ID 1406542-001BMSD SampType: MSD TestCode: EPA Method 6010B: Soil Metals Soil Metals Client ID: Coll 26 Random Sel Batch ID: 13995 RunNo: 13903 Ferp Date: 6/13/2014 Analyte Reput PQL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL SPK Ref Val %REC LowLimit HighLimit %RPD RPDL	Client: Project:	J & L Laı Cell 26 V	ndfarm adose Zoi	ne Repe	at 5 Yr Me	tals			-			
Analyte Result PGL SPK Ref Value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Silver 4.2 0.24 4.834 0 96.3 75 125	Sample ID Client ID: Prep Date:	1406542-001BMS Cell 26 Random S 6/13/2014	Samp⊺ iel Batc Analysis [Гуре: М h ID: 13 Date: 6/	3 695 14/2014	Tes F	tCode: El RunNo: 1 SeqNo: 5	PA Method 9303 57928	6010B: Soil	Metals 		
Silver 4.2 0.24 4.834 0 86.3 75 125 Zinc 22 2.4 24.17 4.370 72.9 75 125 S Sample ID 1406542-001BMSD SampType: MSD TestCode: EPA Method 6010B: Soil Metals Client ID: Cell 26 Random Sel Batch ID: 13695 RunNo: 19303 Prep Date: 6/13/2014 Analytis Date: 6/14/2014 SeqNo: 557929 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Ansenic 32 2.6 2.656 8.527 93.1 75 125 9.62 20 Cadmium 24 0.10 2.665 1.495 82.7 75 125 9.62 20 Cadmium 23 0.31 2.565 1.247 99.1 75 125 9.64 20 3.80	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID 1406542-201BMSD SampType: MSD TestCode: EPA Method 6010B: Solil Metals Client ID: Cell 26 Random Sel Batch ID: 13695 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557929 Units: mg/Kg Analyte Result PQL SPK xalue SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 32 2.6 25.65 0 91.6 75 125 9.62 20 Chromium 23 0.31 25.65 1.247 99.1 75 125 9.62 20 Copper 27 0.31 25.65 1.495 82.7 75 125 10.4 20 Belenium 18 2.6 25.65 0 75 125 10.7 20 Silver 4.6 0.26 5.130 0 90.5 75 125 10.7 20 </td <td>Silver Zinc</td> <td></td> <td>4.2 22</td> <td>0.24</td> <td>4.834 24.17</td> <td>0 4.370</td> <td>86.3 72.9</td> <td>75 75</td> <td>125 125</td> <td></td> <td>-</td> <td>S</td>	Silver Zinc		4.2 22	0.24	4.834 24.17	0 4.370	86.3 72.9	75 75	125 125		-	S
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Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 32 2.6 25.65 8.527 93.1 75 125 7.08 20 Cadmium 24 0.10 25.65 0 91.6 75 125 9.62 20 Chromium 23 0.31 25.65 1.495 82.7 75 125 8.78 20 Copper 27 0.31 25.65 1.497 99.1 75 125 9.66 20 Lead 19 0.26 25.65 0 75.1 75 125 3.80 20 Selenium 18 2.6 25.65 0 69.2 75 125 6.34 20 S Silver 4.6 0.26 5.130 0 90.5 75.7 125 7.78 20 Sample ID MB-13695 SampType: MBLK	Prep Date:	6/13/2014	Analysis [Date: 6/	14/2014	5	SeqNo: 5	57929	Units: mg/M	(g		
Arsenic 32 2.6 25.65 8.527. 93.1 75 125 7.08 20 Cadmium 24 0.10 25.65 0 91.6 75 125 9.62 20 Chromium 23 0.31 25.65 1.495 82.7 75 125 8.78 20 Copper 27 0.31 25.65 1.247 99.1 75 125 8.78 20 Lead 19 0.26 25.65 0 75 125 3.80 20 Manganese 37 0.10 25.65 14.08 89.0 75 125 6.34 20 S Silver 4.6 0.26 5.130 0 90.5 75 125 10.7 20 Zinc 24 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 1.0 SeqNo:	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium 24 0.10 25.65 0 91.6 75 125 9.62 20 Chromium 23 0.31 25.65 1.495 82.7 75 125 8.78 20 Copper 27 0.31 25.65 1.247 99.1 75 125 9.62 20 Lead 19 0.26 25.65 0 75.1 75 125 10.4 20 Manganese 37 0.10 25.65 14.08 89.0 75 125 6.34 20 S Selenium 18 2.6 25.65 0 69.2 75 125 6.34 20 S Silver 4.6 0.26 5.130 0 90.5 75 125 10.7 20 Zinc 2.4 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 601	Arsenic		32	2.6	25.65	8.527	93.1	75	125	7.08	20	
Chromium 23 0.31 25.65 1.495 82.7 75 125 8.78 20 Copper 27 0.31 25.65 1.247 99.1 75 125 9.56 20 Lead 19 0.26 25.65 0 75.1 75 125 10.4 20 Manganese 37 0.10 25.65 14.08 89.0 75 125 3.80 20 Selenium 18 2.6 25.65 0 69.2 75 125 6.34 20 S Silver 4.6 0.26 25.65 4.370 75.7 75 125 10.7 20 Zinc 24 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 6010B: Soll Metals 20 20 Iron 2.4 1.0 13695 RunNo: 19320 192 <td>Cadmium</td> <td></td> <td>24</td> <td>0.10</td> <td>25.65</td> <td>. 0</td> <td>91.6</td> <td>75</td> <td>125</td> <td>9.62</td> <td>20</td> <td></td>	Cadmium		24	0.10	25.65	. 0	91.6	75	125	9.62	20	
Copper 27 0.31 25.65 1.247 99.1 75 125 9.56 20 Lead 19 0.26 25.65 0 75.1 75 125 10.4 20 Manganese 37 0.10 25.65 14.08 89.0 75 125 3.80 20 Selenium 18 2.6 25.65 0 69.2 75 125 6.34 20 S Silver 4.6 0.26 5.130 0 90.5 75 125 10.7 20 Zinc 24 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals 2	Chromium		23	0.31	25.65	1.495	82.7	75	125	8.78	20	
Lead 19 0.26 25.65 0 75.1 75 125 10.4 20 Manganese 37 0.10 25.65 14.08 89.0 75 125 3.80 20 Selenium 18 2.6 25.65 0 69.2 75 125 6.34 20 S Silver 4.6 0.26 5.130 0 90.5 75 125 10.7 20 Zinc 24 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals 20 Client ID: PBS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558464 Units: mg/Kg Iron 2.4 1.0 1.0 Item interminet inte	Copper		27	0.31	25.65	1.247	99.1	. 75	125	9.56	20	
Marganese 37 0.10 25.65 14.08 89.0 75 125 3.80 20 Selenium 18 2.6 25.65 0 69.2 75 125 6.34 20 S Silver 4.6 0.26 5.130 0 90.5 75 125 10.7 20 Zinc 24 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals 20 Client ID: PBS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558464 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 2.4 1.0 1.0 SeqNo: 55848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC <td>Lead</td> <td></td> <td>19</td> <td>0.26</td> <td>25.65</td> <td>0</td> <td>75.1</td> <td>75</td> <td>125</td> <td>10.4</td> <td>20</td> <td></td>	Lead		19	0.26	25.65	0	75.1	75	125	10.4	20	
Selenium 18 2.6 25.65 0 69.2 75 125 6.34 20 S Silver 4.6 0.26 5.130 0 90.5 75 125 10.7 20 Zinc 24 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558464 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 2.4 1.0 TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13695 RunNo: 19320 FepD Amethod 6010B: Soil Metals	Manganese		37	0.10	25.65	14.08	89.0	75	125	3.80	20	
Silver 4.6 0.26 5.130 0 90.5 75 125 10.7 20 Zinc 24 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558464 Units: mg/Kg Analyte Result PQL SPK kalue SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 2.4 1.0 10 100 13695 10.7 20 100	Selenium		18	2.6	25.65	0	69.2	75	125	6.34	20	S
Zinc 24 2.6 25.65 4.370 75.7 75 125 7.78 20 Sample ID MB-13695 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558464 Units: mg/Kg Analyte Result PQL SPK value SPK Kef Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 2.4 1.0 10 Sample ID LCS-13695 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit	Silver		4.6	0.26	5.130	0	90.5	75	125	10.7	20	
Sample IDMB-13695SampType:MBLKTestCode:EPA Method 6010B:Soil MetalsClient ID:PBSBatch ID:13695RunNo:19320Prep Date:6/13/2014Analysis Date:6/17/2014SeqNo:558464Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualIron2.41.0Sample IDLCS-13695SampType:LCSTestCode:EPA Method 6010B:Soil MetalsClient ID:LCSSBatch ID:13695RunNo:19320Prep Date:6/13/2014Analysis Date:6/17/2014SeqNo:558848Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualIron251.025.00099.980120B	Zinc		24	2.6	25.65	4.370	75.7	75	125	7.78	20	
Client ID: PBS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558464 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 2.4 1.0 TestCode: EPA Method 6010B: Soil Metals Soil Metals Client ID: LCSS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 25 1.0 25.00 0 99.9 80 120 B	Sample ID	MB-13695	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	6010B: Soil	Metals	· · ·	
Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558464 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 2.4 1.0 TestCode: EPA Method 6010B: Soil Metals Sample ID LCS-13695 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 25 1.0 25.00 0 99.9 80 120 B	Client ID:	PBS	Batc	h ID: 13	695	F	RunNo: 1	9320				
AnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualIron2.41.0Sample IDLCS-13695SampType:LCSTestCode:EPA Method 6010B:Soil MetalsClient ID:LCSSBatch ID:13695RunNo:19320Prep Date:6/13/2014Analysis Date:6/17/2014SeqNo:558848Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualIron251.025.00099.980120B	Prep Date:	6/13/2014	Analysis D	Date: 6/	17/2014	5	eqNo: 5	58464	Units: mg/K	(g		
Iron 2.4 1.0 Sample ID LCS-13695 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 25 1.0 25.00 0 99.9 80 120 B	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID LCS-13695 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 25 1.0 25.00 0 99.9 80 120 B	Iron		2.4	1.0								
Client ID: LCSS Batch ID: 13695 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 25 1.0 25.00 0 99.9 80 120 B	Sample ID	LCS-13695	SampT	Type: LC	S	Tes	tCode: El	PA Method	6010B: Soil I	Metals	· · ·	
Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 25 1.0 25.00 0 99.9 80 120 B	Client ID:	LCSS	Batcl	h ID: 13	695	· F	RunNo: 19	9320	•			
AnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualIron251.025.00099.980120B	Prep Date:	6/13/2014	Analysis E	Date: 6/	17/2014	S	eqNo: 5	58848	Units: mg/K	(g		
Iron 25 1.0 25.00 0 99.9 80 120 B	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	Iron		25	1.0	25.00	0	99.9	80	120			В

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 greater than 2.
- RL Reporting Detection Limit

Page 10 of 10

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: J & L LANDFARM Work Order Number:	140654	12		RcptN	o: 1
Received by/date KM DU/12/14			· · · · · · · · · · · · · · · · · · ·		
Logged By: Ashley Gallegos 6/12/2014 9:00:00 AM			A		
Completed By: Ashley Gallegos 6/12/2014 9:30:35 AM			AJ		
Reviewed By: Majz 14			v		
Chain of Custody					· · ·
1 Custody seals intact on sample bottles?	Yes	[]]	No	Not Present	j .
2. Is Chain of Custody complete?	Yes	V	No	Not Present	•
3 How was the sample delivered?	FedEx	‹			
	· •	-		,	
Log In					
4. Was an attempt made to cool the samples?	Yes	V.	No	NA 1	
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	V	No		,
7. Sufficient sample volume for indicated test(s)?	Yes	\checkmark	No		
8. Are samples (except VOA and ONG) properly preserved?	Yes	V	No		
9. Was preservative added to bottles?	Yes		No 🗸	NA	
	Vac	: ;	No	No VOA Vials V	,
1. Were any sample containers received broken?	Vor		No V		
	Tes		110	# of preserved	:
12. Does paperwork match bottle labels?	Yes	Y	No	for pH:	
(Note discrepancies on chain of custody)	۰.			>) Adjustod 2	2 or >12 unless noted)
13 Are matrices correctly identified on Chain of Custody?	Yes	∕∕] ⊡a	No	Adjusted f	· · · · · ·
14. Is it clear what analyses were requested?	Yes		No	Checked by	: V:
(If no, notify customer for authorization.)	168	.▼i			
Special Handling (if applicable)					
16. Was client notified of all discrepancies with this order?	Yes		No i	NA V	/
Person Notified					
By Whom: Via:	eMai	i i	Phone Fax	In Person	
Regarding:	and the second second				r i
Client Instructions:					r
17. Additional remarks:	-	•			
19. Cooler Information					
Cooler No Temp °C Condition Seal Intact Seal No Sea No Seal No	Seal Dat	te	Signed Bv		
1 4.8 Good Yes				,	
			4 M . M	• •.	· <u>·</u> · · ·
Page 1 of 1					

C	hain:	-of-Cu	istody Record	Turn-Around Time:																
Client:	T+I		val la mor	Standard	🗆 Rush	1									,					
		- Por		Project Name	cel 26	0										1				
Mailing	Address	•	<u> </u>	Vados	ie zone r	epeat														
		•		<u>Syr</u>	metals		4901 Hawkins NE - Albuquerque, NM 87109													
POB	x 35	6 40	bts Nm 88241	Project #:"			Tel. 505-345-3975 Fax 505-345-4107													
Phone	<u>#: 575</u>	- 631	-5765				Analysis Request													
email o	r Fax#:	jlreb	9697 applicom	Project Mana	iger:		÷) Tu	8				0	6						
	Package:	•			.		802	as c	Σ		Í	0	0 ⁴ .S	Ш Ю						
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Accred	itation			Sampler:			IME	립		?	÷] į	S	2	808						Î
	AP		۲ <u></u>	On ice	Z Yes	L No	+	<u>+</u>	SR O	418	2 2	<u>م</u> اح	ة أ	/ Se		OA)	1.			P
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Date	Time	Matrix	Sample Request ID	Type and #	Туре	HEAL NO	囵	Ϋ́	H B	Ā			s o	11	30B	20 (13			Bul
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 23, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Random Repeats 5 yr Metals

OrderNo.: 1406543

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/12/2014 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 <u>www.hallenvironmental.com</u> 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,

John Collins ld

John Caldwell Supervisor 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1406543 Date Reported: 6/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Vadose Random Repeats 5 yr Metals Project: 1406543-001 Lab ID: Matrix: SOIL Client Sample ID: Cell 33 Random Select #1 Collection Date: 6/10/2014 6:35:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					_	Analyst	: NSB
Benzene	ND	0.047		mg/Kg	1	6/13/2014 6:15:44 PM	13664
Toluene	ND	0.047		mg/Kg	1	6/13/2014 6:15:44 PM	13664
Ethylbenzene	ND	0.047		mg/Kg	1	6/13/2014 6:15:44 PM	13664
Xylenes, Total	ND	0.093		mg/Kg	1	6/13/2014 6:15:44 PM	13664
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	6/13/2014 6:15:44 PM	13664
EPA METHOD 300.0: ANIONS						Analyst	JRR
Chloride	59	30		mg/Kg	20	6/12/2014 2:43:22 PM	13663
EPA METHOD 7471: MERCURY						Analys	: MMD
Mercury	ND	0.031		mg/Kg	1	6/16/2014 1:23:54 PM	13709
EPA METHOD 6010B: SOIL METALS						Analys	ELS
Arsenic	6.6	2.5		mg/Kg	1	6/14/2014 2:41:18 PM	13695
Barium	410	0.20		mg/Kg	2	6/14/2014 2:48:01 PM	13695
Cadmium	ND	0.098		mg/Kg	1	6/14/2014 2:41:18 PM	13695
Chromium	1.6	0.29		mg/Kg	1	6/14/2014 2:41:18 PM	13695
Copper	0.66	0.29		mg/Kg	1	6/14/2014 2:41:18 PM	13695
Iron	1600	9.8	в	mg/Kg	10	6/17/2014 1:14:56 PM	13695
Lead	ND	0.25		mg/Kg	1	6/14/2014 2:41:18 PM	13695
Manganese	15	0.098		mg/Kg	1	6/14/2014 2:41:18 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/14/2014 2:41:18 PM	13695
Silver	ND	0.25		mg/Kg	1	6/14/2014 2:41:18 PM	13695
Zinc	3.8	2.5		mg/Kg	1	6/14/2014 2:41:18 PM	13695
EPA METHOD 418.1: TPH						Analysi	JME
Petroleum Hydrocarbons, TR	ND	20	•	mg/Kg	1	6/13/2014 12:00:00 PM	13659

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

Oualifi	ers: .
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*

- Value exceeds Maximum Contaminant Level. Е Value above quantitation range
- Analyte detected below quantitation limits J
- 0 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 В
- Holding times for preparation or analysis exceeded Н ND
  - Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL
- Page 1 of 9
- **Reporting Detection Limit**

Hall Environmental Analys	· ,	Lab Order 1406543 Date Reported: 6/23/2014				
CLIENT: J & L Landfarm Project: Vadose Random Repeats 5 yr	Metals		Client Samp Collection	le ID: Ce Date: 6/1	11 33 Random Select #2 0/2014 6:55:00 AM	2
Lab ID: 1406543-002	Matrix:	SOIL	Received	<b>Date: 6</b> /1	2/2014 9:00:00 AM	
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.046	mg/Kg	1	6/13/2014 6:45:57 PM	13664
Toluene	ND	0.046	mg/Kg	1	6/13/2014 6:45:57 PM	13664
Ethylbenzene	ND	0.046	mg/Kg	1	6/13/2014 6:45:57 PM	13664
Xylenes, Total	ND	0.092	mg/Kg	1	6/13/2014 6:45:57 PM	13664
Surr: 4-Bromofluorobenzene	98.7	80-120	%REC	1	6/13/2014 6:45:57 PM	13664
EPA METHOD 300.0: ANIONS					Analyst	JRR
Chloride	71	30	mg/Kg	20	6/12/2014 2:55:47 PM	13663
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	6/16/2014 1:25:43 PM	13709
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	6.5	2.5	mg/Kg	1	6/14/2014 2:49:25 PM	13695
Barium	760	0.51	mg/Kg	5	6/17/2014 1:16:19 PM	13695
Cadmium	ND	0.10	mg/Kg	1	6/14/2014 2:49:25 PM	13695
Chromium	2.7	0.30	mg/Kg	1	6/14/2014 2:49:25 PM	13695
Copper	2.2	0.30	mg/Kg	1	6/14/2014 2:49:25 PM	13695
Iron	2800	20 B	_mg/Kg	20	6/17/2014 1:17:42 PM	13695
Lead	ND	0.25	mg/Kg	1	6/14/2014 2:49:25 PM	13695
Manganese	36	0.10	mg/Kg	1	6/14/2014 2:49:25 PM	13695
Selenium	ND	2.5	mg/Kg	1	6/14/2014 2:49:25 PM	13695
Silver	ND	0.25	mg/Kg	1	6/14/2014 2:49:25 PM	13695
Zinc	7.1	2.5	mg/Kg	1	6/14/2014 2:49:25 PM	13695
EPA METHOD 418.1: TPH	•				Analyst	JME
Petroleum Hydrocarbons, TR	75	20	mg/Kg	1	6/13/2014 12:00:00 PM	13659

**Analytical Report** 

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank			
Ē		Value above quantitation range	Н	Holding times for preparation or analysis exceeded				
	J Analyte detected below quantitation limits		ND	Not Detected at the Reporting Limit	Page 2 of 9			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						

**Analytical Report** Lab Order 1406543 Date Reported: 6/23/2014

### Hall Environmental Analysis Laboratory, Inc.

Vadose Random Repeats 5 yr Metals

CLIENT: J & L Landfarm

1406543-003

**Project:** 

Lab ID:

Client Sample ID: Cell 33 Random Select #3 Collection Date: 6/10/2014 7:15:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.049		mg/Kg	1	6/13/2014 11:17:26 PM	13664
Toluene	ND	0.049		mg/Kg	1	6/13/2014 11:17:26 PM	13664
Ethylbenzene	ND	0.049		mg/Kg	1	6/13/2014 11:17:26 PM	13664
Xylenes, Total	ND	0.098		mg/Kg	1	6/13/2014 11:17:26 PM	13664
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	6/13/2014 11:17:26 PM	13664
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	660	30		mg/Kg	20	6/12/2014 3:08:11 PM	13663
EPA METHOD 7471: MERCURY		÷.				Analyst	MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 1:31:15 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	7.4	2.5		mg/Kg	1	6/14/2014 2:52:11 PM	13695
Barium	600	0.51		mg/Kg	5	6/17/2014 1:19:04 PM	13695
Cadmium	ND	0.10		mg/Kg	1	6/14/2014 2:52:11 PM	13695
Chromium	1.8	0.30		mg/Kg	1	6/14/2014 2:52:11 PM	13695
Copper	1.1	0.61		mg/Kg	2	6/14/2014 2:53:36 PM	13695
Iron	1700	10	В	mg/Kg	10	6/17/2014 1:20:27 PM	13695
Lead	ND	0.25		mg/Kg	1	6/14/2014 2:52:11 PM	13695
Manganese	23	0.10		mg/Kg	1	6/14/2014 2:52:11 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/14/2014 2:52:11 PM	13695
Silver	ND	0.25		mg/Kg	1	6/14/2014 2:52:11 PM	13695
Zinc	5.0	2.5		mg/Kg	1	6/14/2014 2:52:11 PM	13695
EPA METHOD 418.1: TPH						Analyst	JME
Petroleum Hydrocarbons, TR	27	20		mg/Kg	1	6/13/2014 12:00:00 PM	13659

Matrix: SOIL

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

Qualifiers:

*

- Е 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 S

Value exceeds Maximum Contaminant Level.

- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND
  - Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- Page 3 of 9
- RL Reporting Detection Limit

### **Analytical Report**

### Lab Order 1406543

Date Reported: 6/23/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:Vadose Random Repeats 5 yr MetalsLab ID:1406543-004Matrix: SOIL

Client Sample ID: Cell 33 Random Select #4 Collection Date: 6/10/2014 7:29:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL O	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					2	Analyst	NSB
Benzene	ND	0.050		mg/Kg	1	6/13/2014 11:47:34 PM	13664
Toluene	ND	0.050		mg/Kg	<b>- 1</b> -	6/13/2014 11:47:34 PM	13664
Ethylbenzene	ND	0.050		mg/Kg	1	6/13/2014 11:47:34 PM	13664
Xylenes, Total	ND	0.10		mg/Kg	· 1	6/13/2014 11:47:34 PM	13664
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/13/2014 11:47:34 PM	13664
EPA METHOD 300.0: ANIONS						Analyst	JRR
Chloride	220	30		mg/Kg	20	6/12/2014 3:20:36 PM	13663
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.033		mg/Kg	1	6/16/2014 1:33:03 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	5.8	2.5		mg/Kg	1	6/14/2014 2:55:00 PM	13695
Barium	340	0.20		mg/Kg	2	6/14/2014 2:56:25 PM	13695
Cadmium	ND	0.10		mg/Kg	1	6/14/2014 2:55:00 PM	13695
Chromium	2.3	0.30		mg/Kg	1	6/14/2014 2:55:00 PM	13695
Copper	1.3	0.30		mg/Kg	1	6/14/2014 2:55:00 PM	13695
Iron	2200	10	в	mg/Kg	10	6/17/2014 1:27:06 PM	13695
Lead	ND	0.25		mg/Kg	1	6/14/2014 2:55:00 PM	13695
Manganese	29	0.10		mg/Kg	1	6/14/2014 2:55:00 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/14/2014 2:55:00 PM	13695
Silver	ND	0.25		mg/Kg	1	6/14/2014 2:55:00 PM	13695
Zinc	5.9	2.5		mg/Kg	1	6/14/2014 2:55:00 PM	13695
EPA METHOD 418.1: TPH						Analyst	JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13659

Qualifiers:	*	Value exceeds Maximum Contaminant Level.		В	Analyte detected in the associated Method	d Blank
	Е	Value above quantitation range		H	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	•	ND	Not Detected at the Reporting Limit	Page 4 of 9
	0	RSD is greater than RSD limit		Р	Sample pH greater than 2.	1 age + 01 7
	R	RPD outside accepted recovery limits		RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			,	

# **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

WO#: 1406543

23-Jun-14

Client: Project:	J & L Landfarm Vadose Random Repeats 5 yr Metals											
Sample ID	MB-13663	3663 SampType: MBLK Te					estCode: EPA Method 300.0: Anions					
Client ID:	PBS	Batch	ch ID: 13663			RunNo: 19245						
Prep Date:	6/12/2014	Analysis D	ate: 6/	12/2014	:	SeqNo: 5	56437	Units: mg/h	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride		ND	1.5			J						
Sample ID	LCS-13663	SampT	ype: LC	S	Tes	stCode: E	PA Method	300.0: Anion	S			
Client ID:	LCSS	Batch	n ID: <b>13</b>	663	i	RunNo: 1	9245					
Prep Date:	6/12/2014	Analysis D	ate: 6/	12/2014	:	SeqNo: 5	56438	Units: mg/k	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Quat	
Chloride		14	1.5	15.00	0	95.1	90	110			·	

### Qualifiers:

* Value exceeds Maximum Contaminant Level.

Value above quantitation range Ε

- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

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1406543

23**-Jun-**14

Client: Project:	J & L Vados	Landfarm e Random Re	peats 5	yr Metals							
Sample ID	MB-13659	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	418.1: TPH			
Client ID:	PBS	Batch	1) (D: <b>13</b> )	659	· F	RunNo: 19	206		• •		
Prep Date:	6/12/2014	Analysis D	ate: 6/	12/2014	S	SeqNo: 5	55439	Units: <b>mg/H</b>	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	. Qual
Petroleum Hyd	rocarbons, TR	ND	20								
Sample ID	LCS-13659	SampT	ype: LC	:S	Tes	tCode: EF	PA Method	418.1: TPH	· · ·		
Client ID:	LCSS	Batch	1D: 13	659	F	RunNo: 19	9206				
Prep Date:	6/12/2014	Analysis D	ate: 6/	12/2014		eqNo: 55	55440	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	rocarbons, TR	92	20	100.0	0	92.3	80	120			
Sample ID	LCSD-13659	SampT	ype: LC		Tes	tCode: EF	PA Method	418.1: TPH			
Client ID:	LCSS02	Batch	1D: 13	659	F	RunNo: 19	206		•		
Prep Date:	6/12/2014	Analysis D	ate: <b>6</b> /	12/2014	S	SegNo: 55	55441	Units: mg/k	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	rocarbons, TR	100	20	100.0	0	101	80	120	8.83	20	

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 greater than 2.
- RL Reporting Detection Limit

Page 6 of 9

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# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: J&L	Landfarm									
Project: Vados	e Random Re	epeats 5	yr Metals			<u> </u>			, <u> </u>	
Sample ID MB-13664	SampT	SampType: MBLK			tCode: El					
Client ID: PBS	Batc	n ID: <b>13</b>	664	F	RunNo: 1	9246				
Prep Date: 6/12/2014	Analysis E	)ate: <b>6</b> /	13/2014	5	SeqNo: 5	57176	Units: mg/h	۲g		
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		111	- 80	120			
Sample ID LCS-13664	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batcl	1D: 13	664	, F	RunNo: 1	9246				
Prep Date: 6/12/2014	Analysis E	)ate: <b>6</b> /	13/2014	5	SeqNo: 5	57177	Units: mg/H	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.1	80	120			
Toluene	0.91	0.050	1.000	0	91.2	80	120		-	
Ethylbenzene	0.94	0.050	1.000	0	93.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.0	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	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 greater than 2.
- RL Reporting Detection Limit

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23-Jun-14

1406543

WO#:

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406543

23-Jun-14

J & L Landfarm

Prep Date: 6/16/2014

Client:	J & L I	Landfarm			· · .
Project:	Vados	e Random Repeats 5 yr Metals	,	•	
Sample ID M	B-13709	SampType: MBLK	TestCode: EPA Method	1 7471: Mercury	
Client ID: P	BS	Batch ID: 13709	RunNo: 19298		

Prep Date: 6/16/2014	Analysis Date: 6/16/2014			· · · · · ·	SeqNo: 5	57827	Units: mg/K	g	•	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								
Sample ID LCS-13709	SampT	ype: LC	s	Tes	tCode: El	PA Method	7471: Mercu	ry		
Client ID: LCSS	Batch	n ID: <b>13</b>	709	. F	RunNo: 1	9298		•		
Prep Date: 6/16/2014	Analysis Date: 6/16/2014			SeqNo: 557828			Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	102	80	120 -			

#### 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
- S 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
- Р Sample pH greater than 2.
- Reporting Detection Limit RL

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# **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

WO#: 1406543 23-Jun-14

Client:	J&LI	Landfarm										
<b>Project:</b>	Vadose	e Random Re	peats 5	yr Metals								
Sample ID	MB-13695	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	6010B: Soil	Metals		<u></u>	
Client ID:	PBS	Batch	Batch ID: 13695			RunNo: 19303						
Pren Date:	6/13/2014	Analysis Date: 6/14/2014			ç	SeaNo: 5	57923					
Thep Date.	0/13/2014		a.c. v	0.001					פי		0	
Analyte		Result	PQL	SPK value	SPK Ret val	%REU	LowLimit	HighLimit	%RPD	RPULIMI	Qual	
Arsenic			2.5									
Cadmium			0.10						· ·			
Chromium			0.10									
Conner			0.30									
Lead			0.00									
Manganese		ND	0.10									
Selenium		ND	2.5									
Silver		ND	0.25			-						
Zinc		ND	2.5							•		
Sample ID	LCS-13695	SampType: LCS			Tes	tCode: E	PA Method	6010B: Soil	Metals			
Client ID:	LCSS	Batch ID: 13695			F	RunNo: 1	9303					
Prep Date:	6/13/2014	Analysis D	Analysis Date: 6/14/2014			SeqNo: 557924			٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		24	2.5	25.00	0	95.8	80	120				
Barium		24	0.10	25.00	0	94.9	80	120				
Cadmium		24	0.10	25.00	0	94.6	80	120				
Chromium		24	0.30	25.00	0	95.2	80	120				
Copper		25	0.30	25.00	0	101	80	120				
Lead		23	0.25	25.00	0	91.4	80	120				
Manganese		24	0.10	25.00	0	95.1	80	120				
Selenium		23	2.5	25.00	0	91.1	80	120				
Silver		4.8	0.25	5.000	0	96.8	80	120				
Zinc		23	2.5	25.00	0	92.4	80	120				
Sample ID	MB-13695	SampT	ype: MB	BLK	Tes	tCode: E						
Client ID:	PBS	Batch ID: 13695			F	RunNo: 1	9320					
Prep Date:	6/13/2014	Analysis Date: 6/17/2014		SeqNo: 558464			Units: mg/k	(g				
Analyte	<u></u>	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Iron		2.4	1.0									
Sample ID	LCS-13695	SampT	ype: LC	s	Tes	tCode: E						
Client ID:	LCSS	Batch ID: 13695			F	RunNo: 1	9320					
Prep Date:	6/13/2014	Analysis Date: 6/17/2014			SeqNo: 558848			Units: mg/k	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Iron		25	1.0	25.00	0	99.9	80	120			В	
			-									

### Qualifiers:

Value exceeds Maximum Contaminant Level. *

Ε Value above quantitation range

- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 9 of 9

Website:	www.halle	environmental	.com																			
ent Name: J & L LAMBFARM Work Order N	lumber:	1406543	•	RcptNo: 1																		
ceived by/date: CAM OU 15	2114	ł																				
ged By: Ashley Gallegos 6/12/2014 9:00:	00 AM		AZ																			
npleted By: Ashiey Gallegos 6/12/2014 9:39:	07 AM		AF		.:																	
viewed By: Act oclizid			V		,																	
ain of Custody		•••••••		•••• •	·																	
Custody seals intact on sample bottles?		Ves 1	No	Not Present V																		
Is Chain of Custody complete?		Yes V	No	Not Present																		
How was the sample delivered?		FedEx		····· ,																		
		I GOLA																				
<u>g In</u>	,			ι.																		
Was an attempt made to cool the samples?		Yes 🗸	No	NA																		
Were all samples received at a temperature of >0° C to 6.0°	C	Yes 🗹	No	<b>NA</b>																		
Sample(s) in proper container(s)?		Yes 🖌	No																			
Sufficient sample volume for indicated test(s)?	, ,	Yes 🔽	No																			
Are samples (except VOA and ONG) properly preserved?		Yes 🖌	No																			
Was preservative added to bottles?		Yes	No 🗸	NA																		
VOA visis have zero beadenace?		Vec	No I	No VOA Vials 🖌																		
Were any sample containers received broken?		Yas L	No 🖌	·····	· · · · · · · ·																	
Deep papawark match battle labele?	٠	Vac 🗐	No ! !	# of preserved bottles checked for pH:																		
(Note discrepancies on chain of custody)	•			(<2 or >	12 unless noted)																	
Are matrices correctly identified on Chain of Custody?		Yes i <b>∨</b> i	No	Adjusted?																		
Is it clear what analyses were requested?		Yes 🗸	No	·																		
Were all holding times able to be met? (If no, notify customer for authorization)	•	Yes 🗸	No	Checked by:																		
			••• •																			
acial Handling (if applicable)			1.e	• •																		
Was client notified of all discrepancies with this order?		Yes 🗋	No	NA 🖌	Y																	
Person Notified	Date:																					
By Whom:	Via:	°eMail ∫ ∣	Phone i Fax	in Person																		
Regarding:																						
Client Instructions:			مر بر مان بر می این این این این می در کرد. 	an a fan staat af staat af staat																		
. Additional remarks:				• • •																		
Cooler Information																						
Cooler No Temp C Condition Seal Intact Seal	No S	eal Date	Signed By																			
1 4.8 Good Yes																						
Analysis noncost   S vr melalS     Po Box 356 Habbs Nm 88241   Project #.     Phone #: S152 - 631 - 5765   Fax 505345-4107     email or Fax#: 1 rob g 1/g1 @ aol.com   Project #.     Standard   Level 4 (Full Validation)     Standard   Level 4 (Full Validation)     Date:   Time     Matrix   Sampler.     Other   Sampler.     Date:   Time     Matrix   Sampler.     Other   Sampler.     Other   Sampler.     Date:   Time     Matrix   Sampler.     Other   Sampler.     Open H:   Habba Noncertainer     Type and #   Type     Hearther   Hearther     Bate   Time     Matrix   Sampler.     Container   Proservative     Type and #   Hearther     VP 022 Y   Y     V 023 V   VI V	Client:	hain-	of-Cu	Istody Re	cord	Turn-Around Time: Standard <b>Rush</b> Project Name: Vadose random refeats				HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com												
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------	--------------------------------------------------------------	----------------------------------	------------------------------------------------	-----------	-----------------------------------------------------------------------------------------------------	----------------------	---------------------------------------	-------------------------------------------------------------------------------	------------------------------------------------------------------------	---------------------	------------------------	------------------	----------	----------------------	--------------------	-----------	-----------	----------------	-------	-----------	-------------
Phone #: S15-631-5265 Analysis Reduest   email or Fax#: jl cob q Lot 1 @ acl .com Project Manager:   OXGC Package. (iv) reduction   Standard Level 4 (Full Validation)   NELAP Other   BEDD (Type) Sample: reduction   Date Time   Matrix Sample: reduction   Obj55 Container   Project 33 Container   Obj55 Loc 201 33   Obj55 Loc 201 33   Obj55 Loc 201 33   Other Container   Obj55 Loc 201 33   Other Loc 201 34   Obj55 Loc 34   Other Container   Date Container   Time Referenter   Other Container   Othoff Loc 20	PoB	ox 35	56 Ho	6bs Nm 8	8241	Project #:	melals		4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107													
Date   Time   Matrix   Sample Request ID   Container Type and #   Preservative Type   M H + X H + X H + X + X + X + X + X + X +	Phone a email or QA/QC F Z Stan Accredi D NEL	#: <b>579</b> r Fax#: Package: dard tation AP	5 <u>- 63</u> j1reb □ Othe	<u> - 57.65</u> 9.691.@ c - Level 4 (Ful	Nol Com	Project Manager: <u>Judy Roberts</u> Sampler: <u>Ondersease</u> Sample Temperature: 478				TBE + TPH (Gas only)	3 (GRO / DRO / MRO)	od 418.1) od 504.1)	10 or 8270 SIMS)	etals	CINO3,NO2,PO4,SO4) 5	cides / 8082 PCB's	lest (V	ii-VOA)	*			s (Y or N)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Date	Time	Matrix	Sample R	equest ID	Container Type and #	Preservative Type	HEAL NOTS 1406593	BTEX+ M	BTEX + M	TPH 8015	FDB (Meth	PAH's (83	RCRA 8 M	Anions (F	8081 Pesti	8260B (VC	8270 (Ser	metals			Air Bubble:
0655   ±2   -D02   X   X   X   X     0715   ±3   -D03   X   Y   X   X   X     0729   ±44   -004   X   X   X   X   X     0729   ±444   -004   -004   X   X   X   X     0710   -004   X   X   X   X   X   X     0710   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004   -004<	6/10/14	0635	soil	Cell 5 Mondam sel	et #1	Hozales	ice	-001	X			¥ _			x				x		$\square$	_
Date: Time: Relinquished by: HI114 H30 H5-Ju- Date: Time: Relinquished by: Received		0655	$\square$	<b>  </b>	±2		<b>   </b>	-002	<u>الإ</u>			<u>¥</u>	╄		ĸ			-+	*		╇	
4 0729 4 49 N COOQ X X X   - - - - - - - -   - - - - - - - -   Date: Time: Relinguished by: Refervel By: Date Time Remarks:   1/1/14 1/30 Ship< Ship		0715			₩3	┼- {		-203	<u> x</u>			<u>}</u>			X				<u>×</u>		┼─┼	_
Date: Time: Relinquished by: Received by: Date: Time: Remarks:   1/1/14 1/30 Jhz Jhz Received by: Date: Time:   2 Time: Relinquished by: Received by: Received by: As Ba Cd Cr Cu Fe Pb MN Hg Se Ag Z	_ <u>4</u>	0729	<b>.</b>		<u> </u>			-004	×			×			<u>х</u>				*	_	┝	
Date: Time: Relinquished by: 11/114/1130 Hogo June Time Remarks: 11/114/1130 Hogo June Time Relinquished by: Date Time Relinquished by: 11/114/1130 Hogo June Time Relinquished by: 11/114/114/1130 Hogo June Time Relinquished by: 11/114/114/114/114/114/114/114/114/114/																						
Date: Time: Relinquished by: 11/14/130 Hospital Received by: Date: Time: Relinquished by: Received by: Received by: Received by: Received by: Received by: Received by: Date Time Date Time Date Time As Ba Cd Cr Cu Fe Pb MN Hg Se Ag Z																						
	Date:	Time: //30 Time:	Relinguish Relinguish	ed by: ed by: ed by:		Received by:		Data Time XIIXIXI0900 Data Time		nark s Ba	s: • Ce	l Cr	- Cu	- F	e f	2	Mn	s F	     	'e Aq	   ZN	/

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

June 25, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765

FAX

RE: Vadose Random Repeats 5 yr Metals

OrderNo.: 1406544

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/12/2014 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 <u>www.hallenvironmental.com</u> 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,

John Collevell

John Caldwell Supervisor 4901 Hawkins NE Albuquerque, NM 87109

**Analytical Report** Lab Order 1406544 Date Reported: 6/25/2014

#### Hall Environmental Analysis Laboratory, Inc.

Vadose Random Repeats 5 yr Metals

CLIENT: J & L Landfarm

1406544-001

**Project:** Lab ID:

Client Sample ID: Cell 32 Random Select #1 Collection Date: 6/10/2014 5:15:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analysi	: NSB
Benzene	ND	0.046		mg/Kg	1	6/14/2014 12:17:48 AN	13664
Toluene	ND	0.046		mg/Kg	1	6/14/2014 12:17:48 AN	13664
Ethylbenzene	ND	0.046		mg/Kg	1	6/14/2014 12:17:48 AN	13664
Xylenes, Total	ND	0.093		mg/Kg	1	6/14/2014 12:17:48 AN	13664
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/14/2014 12:17:48 AN	13664
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	110	30		mg/Kg	20	6/12/2014 3:33:00 PM	13663
EPA METHOD 7471: MERCURY						Analyst	: MMD
Mercury	ND	0.034		mg/Kg	1	6/16/2014 1:34:54 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	3.8	2.4		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Barium	99	0.097		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Cadmium	ND	0.097		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Chromium	4.5	0.29		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Соррег	3.5	0.29		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Iron	5600	49	В	mg/Kg	50	6/17/2014 1:28:30 PM	13695
Lead	0.88	0.24		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Manganese	61	0.097		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Selenium	ND	2.4		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Silver	ND	0.24		mg/Kg	1	6/14/2014 2:57:48 PM	13695
Zinc	12	2.4		mg/Kg	1	6/14/2014 2:57:48 PM	13695
EPA METHOD 418.1: TPH					·	Analyst	JME
Petroleum Hydrocarbons, TR	290	20		mg/Kg	1	6/13/2014 12:00:00 PN	13659

Matrix: SOIL

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

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- 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
- S 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 1 of 9
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Random Repeats 5 yr Metals

Lab ID: 1406544-002 Matrix: SOIL

Analytical Report Lab Order 1406544

Date Reported: 6/25/2014

#### Client Sample ID: Cell 32 Random Select #2 Collection Date: 6/10/2014 5:35:00 AM

Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL Qual Units			DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES	,					Analyst	NSB
Benzene	ND	0.047		mg/Kg	- 1	6/14/2014 12:48:00 AM	13664
Toluene `	ND	0.047		mg/Kg	1	6/14/2014 12:48:00 AM	13664
Ethylbenzene	ND	. 0.047		mg/Kg	1	6/14/2014 12:48:00 AM	13664
Xylenes, Total	· ND	0.095		mg/Kg	1	6/14/2014 12:48:00 AM	13664
Surr: 4-Bromofluorobenzene	95.5	80 <del>,</del> 120		%REC	1	6/14/2014 12:48:00 AM	13664
EPA METHOD 300.0: ANIONS		•				Analyst	JRR
Chloride	ND	30		mg/Kg	20	6/12/2014 3:45:24 PM	13663
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.033		mg/Kg	1	6/16/2014 1:36:43 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	5.7	2.5		mg/Kg	1	6/14/2014 3:07:18 PM	13695
Barium	310	0.20		mg/Kg	· · 2	6/14/2014 3:08:45 PM	13695
Cadmium	, ND	0.10		mg/Kg	່ 1	6/14/2014 3:07:18 PM	13695
Chromium	1.7	0.30		mg/Kg	1	6/14/2014 3:07:18 PM	13695
Copper	- 1.3	0.30		mg/Kg	1	6/14/2014 3:07:18 PM	13695
Iron	1700	10	в	mg/Kg	10	6/17/2014 1:31:13 PM	13695
Lead	ND	0.25		mg/Kg	1	6/14/2014 3:07:18 PM	13695
Manganese	18	0.10		mg/Kg	1	6/14/2014 3:07:18 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/14/2014 3:07:18 PM	13695
Silver	ND	0.25		mg/Kg	1	6/17/2014 1:29:50 PM	13695
Zinc	4.5	2.5		mg/Kg	1	6/14/2014 3:07:18 PM	13695
EPA METHOD 418.1: TPH						Analyst	JME
Petroleum Hydrocarbons, TR	28	20		mg/Kg	1	6/13/2014 12:00:00 PM	13659

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
	7	A sector of the second first second sectors from the second

- 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 greater than 2.
- RL Reporting Detection Limit

Page 2 of 9

**Analytical Report** Lab Order 1406544 Date Reported: 6/25/2014

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Lab ID:

Vadose Random Repeats 5 yr Metals **Project:** 1406544-003

Client Sample ID: Cell 32 Random Select #3 Collection Date: 6/10/2014 5:55:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.046		mg/Kg	1	6/14/2014 1:18:02 AM	13664
Toluene	ND	0.046		mg/Kg	1	6/14/2014 1:18:02 AM	13664
Ethylbenzene	ND	0.046		mg/Kg	1	6/14/2014 1:18:02 AM	13664
Xylenes, Total	ND	0.092		mg/Kg	1	6/14/2014 1:18:02 AM	13664
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	6/14/2014 1:18:02 AM	13664
EPA METHOD 300.0: ANIONS	-					Analyst	: JRR
Chloride	21	1.5		mg/Kg	1	6/23/2014 3:33:01 PM	13663
EPA METHOD 7471: MERCURY						Analyst	: MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 1:38:34 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	5.7	2.4		mg/Kg	1	6/14/2014 3:10:09 PM	13695
Barium	370	0.19		mg/Kg	2	6/14/2014 3:11:33 PM	13695
Cadmium	ND	0.096		mg/Kg	1	6/14/2014 3:10:09 PM	13695
Chromium	2.3	0.29		mg/Kg	1	6/14/2014 3:10:09 PM	13695
Copper	1.9	0.29		mg/Kg	1	6/14/2014 3:10:09 PM	13695
Iron	2300	19	В	mg/Kg	20	6/17/2014 1:34:01 PM	13695
Lead	ND	0.24		mg/Kg	1	6/14/2014 3:10:09 PM	13695
Manganese	32	0.096		mg/Kg	1	6/14/2014 3:10:09 PM	13695
Selenium	ND	2.4		mg/Kg	1	6/14/2014 3:10:09 PM	13695
Silver	ND	0.24		mg/Kg	1	6/17/2014 1:32:37 PM	13695
Zinc .	6.4	2.4		mg/Kg	1	6/14/2014 3:10:09 PM	13695
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	23	20		mg/Kg	1	6/13/2014 12:00:00 PM	13659

Matrix: SOIL

- Qualifiers: * Value exceeds Maximum Contaminant Level. В Ε н Value above quantitation range J Analyte detected below quantitation limits ND 0 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
- Holding times for preparation or analysis exceeded
  - Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- RL Reporting Detection Limit
- Page 3 of 9

. Analytical Report

#### Lab Order 1406544

Date Reported: 6/25/2014

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Lab ID:

1406544-004

Project: Vadose Random Repeats 5 yr Metals

Client Sample ID: Cell 32 Random Select #4 Collection Date: 6/10/2014 6:18:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analysi	: NSB
Benzene	ND	0.049		mg/Kg	<u></u> 1_	6/14/2014 1:48:11 AM	13664
Toluene	ND .	0.049		mg/Kg	1	6/14/2014 1:48:11 AM	13664
Ethylbenzene	[•] ND	0.049		mg/Kg	1	6/14/2014 1:48:11 AM	13664
Xylenes, Total	ND	0.098		mg/Kg	· 1 ·	6/14/2014 1:48:11 AM	13664
Surr: 4-Bromofluorobenzene	98.4			%REC	<u>,</u> 1 ,	6/14/2014 1:48:11 AM	13664
EPA METHOD 300.0: ANIONS		* -				Analyst	: JRR
Chloride	33	30		mg/Kg	· 20	[.] 6/12/2014 4:35:02 PM	13663
EPA METHOD 7471: MERCURY						Analysi	: MMD
Mercury	ND	0.033		mg/Kg	1	6/16/2014 1:40:25 PM	13709
EPA METHOD 6010B: SOIL METALS					,	Analys	ELS
Arsenic	ND	12		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Barium	88	0.48		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Cadmium	ND	0.48		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Chromium	9.9	1.4		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Copper	6.3	1.4		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Iron	11000	48	в	mg/Kg	50	6/17/2014 1:36:47 PM	13695
Lead	3.2	1.2		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Manganese	160	0.48		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Selenium	ND	12		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Silver	ND	1.2		mg/Kg	5	6/17/2014 1:35:25 PM	13695
Zinc	30	12		mg/Kg	5	6/17/2014 1:35:25 PM	13695
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13659

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	· .	1944 ⁻	В	Analyte detected in the associated Method	l Blank
	Е	Value above quantitation range	,		Н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits			ND	Not Detected at the Reporting Limit	Page 4 of 9
	0	RSD is greater than RSDlimit		• •	Р	Sample pH greater than 2.	1 4 50 4 61 7
	R	RPD outside accepted recovery limits			RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits					

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1406544

25-Jun-14

#### **Client:** J & L Landfarm Vadose Random Repeats 5 yr Metals **Project:** TestCode: EPA Method 300.0: Anions Sample ID MB-13663 SampType: MBLK Client ID: PBS Batch ID: 13663 RunNo: 19245 SeqNo: 556437 Prep Date: 6/12/2014 Analysis Date: 6/12/2014 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit Analyte Result HighLimit %RPD RPDLimit Qual Chloride ND 1.5 Sample ID LCS-13663 SampType: LCS TestCode: EPA Method 300.0: Anions Client ID: LCSS Batch ID: 13663 RunNo: 19245 Prep Date: Analysis Date: 6/12/2014 SeqNo: 556438 6/12/2014 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL 95.1 90 110 Chloride 14 1.5 15.00 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 greater than 2.
- RL Reporting Detection Limit

Page 5 of 9

J & L Landfarm

tory, Inc.	 •		2
	 	 	 =

Project:	Vados	e Random Repea	ts 5 yr Metals					
Sample ID	MB-13659	SampType	MBLK	Tes	tCode: EPA Method	I 418.1: TPH		
Client ID:	PBS	Batch ID	13659	· F	RunNo: <b>19206</b>	· · ·		
Prep Date:	6/12/2014	Analysis Date	6/12/2014	S S	SeqNo: 555439	Units: mg/Kg		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydi	rocarbons, TR	ND	20					
Sample ID	LCS-13659	SampType	LCS	Tes	tCode: EPA Method	418.1: TPH	<u></u>	
Client ID:	LCSS	Batch ID	13659	F	RunNo: <b>19206</b>			
Prep Date:	6/12/2014	Analysis Date	6/12/2014	S	SeqNo: <b>555440</b>	Units: mg/Kg	•	· · ·
Analyte		Result P	QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RPD	) RPDLimit	Qual
Petroleum Hydi	rocarbons, TR	92	20 100.0	0	92.3 80	120		
Sample ID	LCSD-13659	SampType	LCSD	Tes	tCode: EPA Method	418.1: TPH		
Client ID:	LCSS02	Batch ID	13659	.: F	RunNo: <b>19206</b>	· · · · · ·		
Prep Date:	6/12/2014	Analysis Date:	6/12/2014	. 8	SeqNo: <b>555441</b>	Units: mg/Kg	<i>.</i>	
Analyte		Result P	QL SPK value	SPK Ref Val	%REC LowLimit	HighLimit %RPD	) RPDLimit	Qual
Petroleum Hyde	rocarbons, TR	100	20 100.0	0	101 80	120 8.83	3 20	

Qualifiers:

**Client:** 

- * Value exceeds Maximum Contaminant Level.
- Ε 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
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- ŔL **Reporting Detection Limit**

1406544 25**-J**un-14

WO#:

Page 6 of 9

### Hall Environmental Analysis Laboratory, Inc.

Client: J&LI Project: Vadose	Landfarm Random Re	peats 5	yr Metals										
Sample ID MB-13664	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles					
Client ID: PBS	Batch	1D: 13	664	RunNo: <b>19246</b>									
Prep Date: 6/12/2014	Analysis D	ate: 6/	13/2014	S	SeqNo: 5	57176	Units: mg/k	٢g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	0.050											
oluene	ND	0.050											
thylbenzene	ND	0.050											
ylenes, Total	ND	0.10											
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120						
Sample ID LCS-13664	SampT	ype: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles					
Client ID: LCSS	Batch	n ID: 13	664	F	RunNo: 1	9246							
Prep Date: 6/12/2014	Analysis D	ate: 6/	13/2014	5	SeqNo: 5	57177	Units: mg/H	٢g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.93	0.050	1.000	0	93.1	80	120						
Toluene	0.91	0.050	1.000	0	91.2	80	120						
thylbenzene	0.94	0.050	1.000	0	93.7	80	120						
(ylenes, Total	2.9	0.10	3.000	0	97.0	80	120						
Sur: 4-Bromofluorobenzene	1.1		1.000		106	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 S
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 7 of 9

25-Jun-14

1406544

WO#:

Hall Environmental Analysis Laboratory, In	Ç,
--------------------------------------------	----

WO#: 1406544

25-Jun-14

Client: J&I Project: Vado	Landfarm	epeats 5	yr Metals		ě		1		· · ·	
Sample ID MB-13709 Client ID: PBS Prep Date: 6/16/2014	Samp Batc Analysis [	Type: MI h ID: 13 Date: 6/	BLK 709 /16/2014	Tes F	tCode: E RunNo: 1 SeqNo: 5	PA Method 9298 57827	7471: Mercu Units: mg/F	ry (g		
Analyte Mercury	Result ND	PQL 0.033	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID LCS-13709 Client ID: LCSS Prep Date: 6/16/2014	Samp Batc Analysis [	Type: LC h ID: 13 Date: 6/	S 709 16/2014	Tes F	tCode: E RunNo: 1 SeqNo: 5	PA Method 9298 57828	7471: Mercu Units: mg/h	~		
Analyte Mercury	Result 0.17	PQL 0.033	SPK value 0.1667	SPK Ref Val 0	%REC 102	LowLimit 80	HighLimit 120	%RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 8 of 9

Client: J	& L Landfarm									
Project: V	adose Random Rep	eats 5 yr M	etals							
Sample ID MB-13695	SampTy	pe: MBLK		Tes	tCode: El	PA Method	6010B: Soil I	letals		
Client ID: PBS	Batch	ID: 13695		F	RunNo: 1	9303				
Prep Date: 6/13/2014	4 Analysis Da	te: 6/14/201	14	S	eqNo: 5	57923	Units: mg/K	g		
Analyte	Result	PQL SPK	value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	. ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Selenium	ND	2.5							·	
Silver	ND	0.25								
Zínc	ND	2.5								
Sample ID LCS-1369	5 SampTy	pe: LCS		Tes	tCode: El	PA Method	6010B: Soil I	letals		
Client ID: LCSS	Batch	D: <b>13695</b>		R	RunNo: 1	9303				
Prep Date: 6/13/2014	4 Analysis Da	te: 6/14/201	14	S	SeqNo: 5	57924	Units: mg/K	g		
Analyte	Result	PQL SPK	value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	2.5	25.00	0	95.8	80	120			
Barium	24	0.10	25.00	0	94.9	80	120			
Cadmium	24	0.10	25.00	0	94.6	80	120			
Chromium	24	0.30	25.00	0	95.2	80	120			
Copper	25	0.30	25.00	0	101	80	120			
Lead	23	0.25	25.00	0	91.4	80	120			
Manganese	24	0.10	25.00	0	95.1	80	120			
Selenium	23	2.5	25.00	0	91.1	80	120			
Silver	4.8	0.25	5.000	0	96.8	80	120			
2inc		2.5	25.00		92.4		120			
Sample ID MB-13695	SampTy	pe: MBLK		Test	tCode: El	PA Method	6010B: Soil I	letais		
Client ID: PBS	Batch	ID: <b>13695</b>		ਜ	RunNo: 1	9320				
Prep Date: 6/13/2014	4 Analysis Da	te: 6/17/201	14	S	SeqNo: 5	58464	Units: mg/K	9		
Analyte	Result	PQL SPK	value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.4	1.0								
Sample ID LCS-1369	5 SampTy	pe: LCS		Tes	tCode: El	PA Method	6010B: Soil I	letals		
Client ID: LCSS	Batch	ID: 13695		F	RunNo: 1	9320				
Prep Date: 6/13/2014	4 Analysis Da	te: 6/17/201	14	S	SeqNo: 5	58848	Units: mg/K	g		
Analyte	Result	PQL SPK	value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	25	1.0	25.00	0	99.9	80	120			В

#### 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 greater than 2.
- RL Reporting Detection Limit

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- WO#: 1406544
  - 25-Jun-14

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: J & L LANDFARM Work Order Nu	mber: 1406544		ReptNo: 1	
In animu			•	•
Received by/date:	<b>7</b>			
ogged By: Ashley Gallegos 6/12/2014 9:00:0	0 AM -	AJ		;
Completed By: Ashley Gallegos 6/12/2014 9:41:5	6 AM	AZ		. ,
Reviewed By:		V ·		
cu c		ан ал на		
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?	FedEx			
	, <del></del>			
Log In	· · · · ·	、 ·		
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 V	No		
	105 101		بر	
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 11	No VOA Vials V	
1 1. Were any sample containers received broken?	Yes	No 💜	# of preserved bottles chacked	
12 Does paperwork match bottle labels?	Yes 🔽	No	for pH:	
(Note discrepancies on chain of custody)	No.	No	(<2 or >12 u Adjusted?	iniess notea)
3. Are matrices correctly identified on Unain of Custody?		No		
15. Were all holding times able to be met?	Yes V	No	Checked by:	
(If no, notify customer for authorization.)				
pecial Handling (if applicable)	. · · ·			
16. Was client notified of all discrepancies with this order?	Yes	No	NA 🗸	
Person Notified: D	ate:			
By Whom: Vi	ia: eMail I	Phone Fax	In Person	
Regarding:				
Client Instructions.			,	
17. Additional remarks:		···· ·	· ·	
18 Cooler Information		· · · · ·		
Cooler No Temp °C Condition Seal Intact Seal N	o Seal Date	Signed By	· ·	
1 4.8 Good Yes				

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Page 1 of 1

Chain-of-Custody Record			ord	Turn-Around Time:									F	мV	тр		IM	EN	таі	l	
Client:	7+L	. La	Netarm		]   <b>⊈∕</b> Standard	🗆 Rush	L	I						Y	STS	1 K. 1 I /	<b>AB</b>	0R	213 241	'OR	Y
		·	0		Project Name	ZANIP (	epeat		www.hallenvironmental.com												
Mailing	Address			······	5Vr	metals	-1	:		490	1 Ha	wkins	NE -	Alb	uaue	raue	. NM	8710	)9		
PO	Box	356	Hobbs NIN	8824	Project #:	111010-0		   1		Tel	. 505	-345-3	975	F	ax 5	505-3	845-4 ⁻	107			
Phone	#: 575	-631-	-5765										A	Analy	vsis F	Requ	iest				
email o	r Fax#:	TOD	9697@ aol	com	Project Mana	iger:			1)	(ylr	<u>(</u> )				04)						
	Package:	1	🗆 Level 4 (Full \	/alidation)	Judy	Rober	IS		s (802	(Gas o	₩ / Q		SIMS)		PO4,S	PCB'					
Accred	itation		······································		Sampler:	· · · · · · · · · · · · · · · · · · ·			ΣB	풘	<u></u>	e e	20 5		NO2	3082					Ę
		Othe	<u></u>		On Ice:	Yes	Notation		+	Ŧ	8	504	or 82	s	Q°,	es / l		<del>ا</del> م	<b>k</b>		5
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Date	Time	Matrix	Sample Red	quest ID	Container Type and #	Preservative Type			N XII	TEX + N	PH 8015	DB (Met	AH's (83	CRA 8 N	nions (F	081 Pest	260B (V(		Welar		ir Bubble
Glinley	0515	Soil	Cell 3	2 ecT #1	402965	ile	-00	<u>99</u>	ν X	<u></u>		<u>г ш</u>		E.	× X	- - - - - - - - - - - - - -	<u>60</u>	v 10		┢╾┟	4
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

### HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

June 23, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeats 5 yr Metals Cell 30

OrderNo.: 1406546

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/12/2014 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 <u>www.hallenvironmental.com</u> 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,

Um Collarell

John Caldwell Supervisor 4901 Hawkins NE Albuquerque, NM 87109

#### Analytical Report Lab Order 1406546 Date Reported: 6/23/2014

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:Vadose Zone Repeats 5 yr Metals Cell 30Lab ID:1406546-001Matrix: SOIL

Client Sample ID: Cell 30 Random Select #1 Collection Date: 6/10/2014 5:30:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL C	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES			_			Analyst	: NSB
Benzene	ND	0.046		mg/Kg	1	6/14/2014 2:18:17 AM	13664
Toluene	ND	0.046		mg/Kg	1	6/14/2014 2:18:17 AM	13664
Ethylbenzene	ND	0.046		mg/Kg	1	6/14/2014 2:18:17 AM	13664
Xylenes, Total	ND	0.092		mg/Kg	1	6/14/2014 2:18:17 AM	13664
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	6/14/2014 2:18:17 AM	13664
EPA METHOD 300.0: ANIONS						Analys	: JRR
Chloride	210	30	-	mg/Kg	20	6/12/2014 4:47:27 PM	13663
EPA METHOD 7471: MERCURY						Analys	: MMD
Mercury	ND	0.033		mg/Kg	1	6/16/2014 1:42:10 PM	13709
EPA METHOD 6010B: SOIL METALS						Analys	ELS
Arsenic	7.1	2.5		mg/Kg	1	6/14/2014 3:15:53 PM	13695
Barium	290	0.20		mg/Kg	2	6/14/2014 3:17:15 PM	13695
Cadmium	ND	0.10		mg/Kg	1	6/14/2014 3:15:53 PM	13695
Chromium	1.5	0.31		mg/Kg	1	6/14/2014 3:15:53 PM	13695
Copper	1.2	0.31		mg/Kg	1	6/14/2014 3:15:53 PM	<b>13695</b> ,
Iron	1600	10	В	mg/Kg	10	6/17/2014 1:39:37 PM	13695
Lead	ND	0.25		mg/Kg	1	6/14/2014 3:15:53 PM	13695
Manganese	24	0.10		mg/Kg	1	6/14/2014 3:15:53 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/14/2014 3:15:53 PM	13695
Silver	ND	0.25		mg/Kg	1	6/17/2014 1:38:11 PM	13695
Zinc	4.1	2.5		mg/Kg	1	6/14/2014 3:15:53 PM	13695
EPA METHOD 418.1: TPH						Analys	: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	
	Ε	Value above quantitation range	Н	
	J	Analyte detected below quantitation limits	ND	)

- 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 greater than 2.
- Page 1 of 9
- RL Reporting Detection Limit
- $\cdot$

Analytical Report	
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#### Lab Order 1406546

Date Reported: 6/23/2014

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project:Vadose Zone Repeats 5 yr Metals Cell 30Lab ID:1406546-002Matrix: SOIL

Client Sample ID: Cell 30 Random Select #2 Collection Date: 6/10/2014 5:51:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RLO	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.049		mg/Kg	1	6/14/2014 2:51:01 AM	13664
Toluene	ND	0.049		mg/Kg	1	6/14/2014 2:51:01 AM	13664
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2014 2:51:01 AM	13664
Xylenes, Total	ND	0.098		mg/Kg	1	6/14/2014 2:51:01 AM	13664
Surr: 4-Bromofluorobenzene	94.1	80-120		%REC	1	6/14/2014 2:51:01 AM	13664
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	[′] 34	30		mg/Kg	20	6/12/2014 4:59:51 PM	13663
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 1:43:54 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	3.9	2.5		mg/Kg	1	6/14/2014 3:18:38 PM	13695
Barium	150	0.099		mg/Kg	1	6/14/2014 3:18:38 PM	13695
Cadmium	ND	0.099		mg/Kg	1	6/14/2014 3:18:38 PM	13695
Chromium	2.9	0.30		mg/Kg	1	6/14/2014 3:18:38 PM	13695
Copper	1.3	0.30		mg/Kg	1	6/14/2014 3:18:38 PM	13695
Iron	3100	20	в	mg/Kg	20	6/17/2014 1:47:40 PM	13695
Lead	ND	0.25		mg/Kg	1	6/14/2014 3:18:38 PM	13695
Manganese	32	Q.099		mg/Kg	1	6/14/2014 3:18:38 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/14/2014 3:18:38 PM	13695
Silver	ND	0.25		mg/Kg	1	6/17/2014 1:46:13 PM	13695
Zinc	7.0	2.5		mg/Kg	1	6/14/2014 3:18:38 PM	13695
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	· ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
•	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 9
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 )
	Ŕ	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits		· .	

#### **Analytical Report** Lab Order 1406546

Date Reported: 6/23/2014

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone Repeats 5 yr Metals Cell 30 1406546-003 Lab ID: Matrix: SOIL Client Sample ID: Cell 30 Random Select #3 Collection Date: 6/10/2014 6:14:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL O	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.049		mg/Kg	1	6/14/2014 3:21:12 AM	13664
Toluene	ND	0.049		mg/Kg	1	6/14/2014 3:21:12 AM	13664
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2014 3:21:12 AM	13664
Xylenes, Total	ND	0.097		mg/Kg	1	6/14/2014 3:21:12 AM	13664
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	6/14/2014 3:21:12 AM	13664
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	440	30		mg/Kg	20	6/12/2014 5:12:16 PM	13663
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.033		mg/Kg	1	6/16/2014 1:45:40 PM	13709
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	7.8	2.5		mg/Kg	1	6/17/2014 1:48:58 PM	13695
Barium	390	0.51		mg/Kg	5	6/17/2014 1:50:25 PM	13695
Cadmium	ND	0.10		mg/Kg	1	6/17/2014 1:48:58 PM	13695
Chromium	1.3	0.31		mg/Kg	1	6/17/2014 1:48:58 PM	13695
Copper	0.87	0.31		mg/Kg	1	6/17/2014 1:48:58 PM	13695
Iron	1200	5.1	в	mg/Kg	5	6/17/2014 1:50:25 PM	13695
Lead	ND	0.25		mg/Kg	1	6/17/2014 1:48:58 PM	13695
Manganese	13	0.10		mg/Kg	1	6/17/2014 1:48:58 PM	13695
Selenium	ND	2.5		mg/Kg	1	6/17/2014 1:48:58 PM	13695
Silver	ND	0.25		mg/Kg	1	6/17/2014 1:48:58 PM	13695
Zinc	3.0	2.5		mg/Kg	1	6/17/2014 1:48:58 PM	13695
EPA METHOD 418.1: TPH						Analyst	JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

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

Ous	lifiers
- Vua	micis,

*

- Value exceeds Maximum Contaminant Level. Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- **Reporting Detection Limit** RL
- Page 3 of 9

Hall Environmental Analysis	s Labora	tory, Inc	· · · · · · · · · · · · · · · · · · ·		Lab Order 1406546 Date Reported: 6/23/201	14			
CLIENT: J & L Landfarm Project: Vadose Zone Repeats 5 yr Met	als Cell 30	Client Sample ID: Cell 30 Random Select #4 Collection Date: 6/10/2014 6:29:00 AM							
Lab ID: 1406546-004	Matrix:	SOIL	<b>Received D</b>	ate: 6/1	2/2014 9:00:00 AM				
Analyses	Result	RL (	Jual Units	DF	Date Analyzed	Batch			
EPA METHOD 8021B: VOLATILES					Analyst	NSB			
Benzene	ND	0.047	mg/Kg	1	6/14/2014 3:51:23 AM	13664			
Toluene	ND ·	0.047	mg/Kg	· 1	6/14/2014 3:51:23 AM	13664			
Ethylbenzene	ND	0.047	mg/Kg	1	6/14/2014 3:51:23 AM	13664			
Xylenes, Total	ND	0.094	mg/Kg	. 1	6/14/2014 3:51:23 AM	13664			
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	6/14/2014 3:51:23 AM	13664			
EPA METHOD 300.0: ANIONS					Analyst	JRR			
Chloride	100	30	mg/Kg	20	6/12/2014 5:24:40 PM	13663			
EPA METHOD 7471: MERCURY			· ·		Analyst	MMD			
Mercury	ND	0.032	mg/Kg	1	6/16/2014 1:47:26 PM	13709			
EPA METHOD 6010B: SOIL METALS					Analyst	ELS			
Arsenic	6.4	2.5	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
Barium	600	0.50	mg/Kg	5	6/17/2014 1:53:09 PM	13695			
Cadmium	ND	0.099	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
Chromium	2.8	0.30	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
Copper	2.3	0.30	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
Iron	2600	20	B mg/Kg	20	6/18/2014 11:04:26 AM	13695			
Lead	ND	0.25	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
Manganese	39	0.099	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
Selenium	ND	2.5	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
Silver	ND	0.25	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
Zinc	7.5	2.5	mg/Kg	1	6/17/2014 1:51:47 PM	13695			
EPA METHOD 418.1: TPH					Analyst	JME			
Petroleum Hydrocarbons, TR	46	20	mg/Kg	1	6/13/2014 12:00:00 PM	13667			

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	NÐ	Not Detected at the Reporting Limit Page 4 of 9
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		· · · ·

2

Analytical Report

WO#:	1406546

23-Jun-14

# Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J & L I Vados	Landfarm e Zone Repeats 5 yi	r Metals Cell	30					
Sample ID Client ID: Prep Date:	MB-13663 PBS 6/12/2014	SampType: M Batch ID: 1 Analysis Date: 6	IBLK 3663 5/12/2014	Tes F	tCode: EPA Metho RunNo: 19245 SeqNo: 556437	d 300.0: Anion Units: mg/k			
Analyte Chloride	<u> </u>	Result PQL ND 1.5	SPK value	SPK Ref Val	%REC LowLimit	t HighLimit	%RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date:	LCS-13663 LCSS 6/12/2014	SampType: L Batch ID: 1 Analysis Date: 6	CS 3663 6/12/2014	Tes F S	Code: EPA Metho RunNo: 19245 SeqNo: 556438	d 300.0: Anion Units: mg/k	is (g		
Analyte Chloride		Result PQL 14 1.5	SPK value 5 15.00	SPK Ref Val	%REC LowLimit 95.1 90	HighLimit	%RPD	RPDLimit	Qual

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- RSD is greater than RSDlimit 0
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- **Reporting Detection Limit**

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RL

WO#: 1406546

23**-J**un-14

Client: J&LL	andfarm			· · ·
Project: Vadose	Zone Repeats 5 yr Metals Cel	11 30	; .	
Sample ID MB-13667	SampType: MBLK	TestCode: EPA Method	418.1: TPH	
Client ID: PBS	Batch ID: 13667	RunNo: 19239	*	
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556588	Units: mg/Kg	
Analyte	. Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	ND 20			
Sample ID LCS-13667	SampType: LCS	TestCode: EPA Method	418.1: TPH	
Client ID: LCSS	Batch ID: 13667	RunNo: 19239		
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556589	Units: mg/Kg	:
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	110 20 100.0	0 105 80	120	
Sample ID LCSD-13667	SampType: LCSD	TestCode: EPA Method	418.1: TPH	
Client ID: LCSS02	Batch ID: 13667	RunNo: 19239	·	
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556590	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLímit Qual
Petroleum Hydrocarbons, TR	100 20 100.0	0 104 80	120 1.32	20

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 greater than 2.

14

RL Reporting Detection Limit

Page 6 of 9

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Client: J&L Project: Vados	Landfarm e Zone Repeats 5	yr Metals Cel	130						
Sample ID MB-13664	SampType:	MBLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batch ID:	13664	F	RunNo: 1	9246				
Prep Date: 6/12/2014	Analysis Date:	6/13/2014	5	SeqNo: 5	57176	Units: mg/M	(g		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND 0.0	)50							
Toluene	ND 0.0	)50							
Ethylbenzene	ND 0.0	)50							
Xylenes, Total	ND 0	.10							
Surr: 4-Bromofluorobenzene	1.1	1.000		111	80	120			
Sample ID LCS-13664	SampType:	LCS	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch ID:	13664	, F	RunNo: 19	9246				
Prep Date: 6/12/2014	Analysis Date:	6/13/2014	S	SeqNo: 5	57177	Units: mg/M	(g		
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93 0.0	1.000	0	93.1	80	120			
Toluene	0.91 0.0	50 1.000	· 0 ·	91.2	80	120			
Ethylbenzene	0.94 0.0	1.000	0	93.7	80	120	·		
Xylenes, Total	2.9 0	.10 3.000	0	97.0	80	120		· · · ·	
Surr: 4-Bromofluorobenzene	1.1	1,000		106	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- **Reporting Detection Limit** RL

WO#:

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23-Jun-14

1406546

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406546

23-Jun-14

Client: Project:	J & L Vados	Landfarm e Zone Repea	ıts 5 yr	Metals Cell	30						
Sample ID	VIB-13709	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID: F	PBS	Batch	ID: 13	709	` F	RunNo: 1	9298		6 d		
Prep Date:	6/16/2014	Analysis D	ate: 6/	16/2014	S	SeqNo: 5	57827	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		, ND	0.033								
Sample ID	LCS-13709	SampT	ype: LC	s	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID: L	LCSS	Batch	ID: 13	709	F	RunNo: 1	9298				
Prep Date:	6/16/2014	Analysis D	ate: 6/	16/2014	5	SeqNo: 5	57828	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.17	0.033	0.1667	0	102	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 greater than 2.
- RL Reporting Detection Limit

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Client: Project:	J & L Vado	Landfarm	ats 5 yr	Metals Cell	1 30						
Sample ID	MB-13695	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID [.]	PBS	Batch	n ID: 13	695	· F	RunNo: 1	9303				
Prep Date:	6/13/2014	Analysis D	)ate: 6/	14/2014	S	SeqNo: 5	57923	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5	4,100							
Barium		ND	0.10								
Cadmium	-	ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30								
Lead		ND	0.25								
Manganese		ND	0.10								
Selenium		ND	2.5								
Silver		ND	0.25								
Zinc		ND	2.5					·			
Sample ID	LCS-13695	SampT	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil I	Metals		-
Client ID:	LCSS	Batch	n ID: <b>13</b>	695	F	RunNo: 1	9303				
Prep Date:	6/13/2014	Analysis D	)ate: 6/	14/2014	5	SeqNo: 5	57924	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		24	2.5	25.00	0	95.8	80	120	-		
Barium		24	0.10	25.00	0	94.9	80	120			
Cadmium		24	0.10	25.00	0	94.6	80	120			
Chromium		24	0.30	25.00	0	95.2	80	120			
Copper		25	0.30	25.00	0	101	80	120			
Lead		23	0.25	25.00	0	91.4	80	120			
Manganese		24	0.10	25.00	0	95.1	80	120			
Selenium		23	2.5	25.00	0	91.1	80	120			
Silver		4.8	0.25	5.000	0	96.8	80	120			
Zinc		23	2.5	25.00	0	92.4	80	120			
Sample ID	MB-13695	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	6010B: Soil I	Metals		
Client ID:	PBS	Batch	n ID: 13	695	F	RunNo: 1	9320				
Prep Date:	6/13/2014	Analysis D	)ate: 6/	17/2014	5	SeqNo: 5	58464	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		2.4	1.0			· · ·					
Sample ID	LCS-13695	SampT	ype: LC	 :S	Tes	tCode: E	PA Method	6010B: Soil I	Metals	<u> </u>	
Client ID:	LCSS	Batch	n ID: 13	695	F	RunNo: 1	9320				
Prep Date:	6/13/2014	Analysis D	)ate: 6/	17/2014	5	SeqNo: 5	58848	Units: <b>mg/K</b>	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		25	1.0	25.00	0	99.9	80	120			В

#### Qualifiers:

* Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

- J Analyte detected below quantitation limits
- RSD is greater than RSDlimit 0
- R RPD outside accepted recovery limits
- 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
- Sample pH greater than 2. Р
- RL
- **Reporting Detection Limit**

WO#: 1406546

23-Jun-14

Page 9 of 9

Hall Envir TEL: 505 Website	ronmental Analy 490 Albuquerq -345-3975 FAX: e: www.hallenvit	sis Laborator I Hawkins N we, NM 8710 505-345-410 conmental.com	⁷⁹ ⁷⁶ ⁷⁹ <b>Sam</b> p ⁷⁷	ble Log-In C	heck List
Client Name: J & L LANDFARM Work Order	Number: 1406	6546	· .	ReptNo:	1
	112/12	<u>}</u>		- 	• • ·
Logged By: Ashley Gallegos 6/12/2014 9:0	\ \ 10:00 AM		AZ		
Completed By: Ashley Gallegos 6/12/2014 9:4	4:28 AM		A		
Reviewed By: AN 19/0/12/14	4		, Q		
Chain of Custody			•		
1. Custody seals intact on sample bottles?	Yes	. 1 3	No	Not Present	
2. Is Chain of Custody complete?	Yes		No 1	Not Present	
3. How was the sample delivered?	Fed	Ex			
Log In					
4. Was an attempt made to cool the samples?	Ye	s 🔽	No	NA	
5. Were all samples received at a temperature of $>0^\circ$ C to 6.	0°Ć Ves		Νο	NA	
6. Sample(s) in proper container(s)?	Ye	s i <b>v</b> i	No i !		
7. Sufficient sample volume for indicated test(s)?	Yes		No		
8. Are samples (except VOA and ONG) property preserved?	Yes		No		
9. Was preservative added to bottles?	Yes	, ⁷ 1	No 🖌	NA	
10.VOA vials have zero headspace?	Yes		No N	No VOA Vials V	
I I vvere any sample containers received broken r	18:	5 · ′		# of preserved	
12. Does paperwork match bottle labels?	Yes		No	for pH:	
(Note discrepancies on chain of custody)	X		No	<2_o Adiusted?	r >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes			· <b>,</b>	
15. Were all holding times able to be met?	Yes		No []]	Checked by:	
(If no, notify customer for authorization.)		).	ī	•	
Special Handling (if explicable)			•		
Special manoning (if applicable)	Var		No	NA M	
	Tes		NO i		
Person Notified:	Date:	loil Dhe	no ^{: :} Eov	In Person	
Regarding:					
Client Instructions:		r ,			•
17. Additional remarks:	·····		• •		
18. Cooler Information	Х	•	,		
Cooler No Tëmp °C Condition Seal Intact Sea	al No Seal D	ate S	igned By		
1  4.8  Good  Yes		<u> </u>			
Page 1 of 1	2 te		-	· · · ·	• •
			:		

С	hain-	of-Cu	istody R	ecord	Turn-Around	Time:									TC	2	<b></b>		RIT		
Client:			}		Standard	🗆 Rush	·				П А	NÅ	LE	ST	5 LF		BÖ	RA		R)	Y
5.	+1	hand	Jam		Project Name	se zone	repeats	1				vww.ł	allen	viron	ment	tal.co	om				
Mailing	Address	:	0		545	metal	s ael 30		49	01 H	awkir	is NE	- Al	buqu	erqu	e, N	M 87	109			
POB	ox 3	56 1	tobbs NM	88241	Project #:				Τe	əl. 50	5-34	5-397	5	Fax	505-	345-	-410	7			
Phone	#: 57	5-63	1-576	5			·						Ana	ysis	Req	uest	t				
email o	r Fax#:	jlrob	96970	policom	Project Mana	iger:		1	(ylu	ĝ				( [†]	s S						
QAVQC	Package:				71		7	802	as c	M / Q				04,5	CB						
Z Stan	idard		Level 4 (Fi	Ill Validation)	Judy	Koberk	5	B's (	H (G	DRO DRO			5	2, P	82 F						
	AP	🗆 Othe	r		Sampler.	- Yes		_ I ↓	TP	10	8.1)	1.1)		3,N	/ 80		7				(Z
	(Type)				Sample Tem	perature. 4		E H	Ш	ନ୍ତି	4 4	d 50	tals of	No	ides	2	Š	*			ľΣ
Date	Time	Matrix	Sample F	Request ID	Container Type and #	Preservative Type	HEAL NO	BTEX+MT	BTEX + MTI	TPH 8015B	<b>TPH</b> Metho	EDB (Metho	RCRA 8 Me	Anions (F,	3081 Pestic	3260B (VO/	3270 (Semi-	metek			Air Bubbles
6/11)4	0530	coil	Cell #	= 30 0 0 T# 1	Um alor	N.C.	-001		1		x	_	-	¥				~	-		$\uparrow$
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Date:	Time:	Relingish	led by:		Received by:	<u> </u>	Date Time	Re	 mark	s:				_	L				!		
Date:	1/30) Time:	Relinguish	5 Here	· · · ·	Received by:	× C4	Date Time	-  *	As	Bo.	Cd	Cr	Cu	Fe	21	<b>6</b>	Жı	n H	lg S1	e Aq	12

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

### HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 23, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeats 5 yr Metals Cell 7

OrderNo.: 1406548

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/12/2014 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 <u>www.hallenvironmental.com</u> 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,

John Collinell

John Caldwell Supervisor 4901 Hawkins NE Albuquerque, NM 87109

### Hall Environmental Analysis Laboratory, Inc.

Vadose Zone Repeats 5 yr Metals Cell 7

CLIENT: J&L Landfarm

1406548-001

Project: Lab ID:

#### Analytical Report Lab Order 1406548 Date Reported: 6/23/2014

Client Sample ID: Cell #7 Random Select #1 Collection Date: 6/11/2014 8:22:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.049		mg/Kg	1	6/14/2014 6:21:51 AM	13664
Toluene	ND	0.049		mg/Kg	1	6/14/2014 6:21:51 AM	13664
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2014 6:21:51 AM	13664
Xylenes, Total	ND	0.098		mg/Kg	1	6/14/2014 6:21:51 AM	13664
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	6/14/2014 6:21:51 AM	13664
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	100	30		mg/Kg	20	6/13/2014 12:29:30 PM	13690
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 1:56:29 PM	13710
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	ND	2.5		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Barium	76	0.10		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Cadmium	ND	0.10		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Chromium	4.1	0.30		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Copper	1.3	0.30		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Iron	3900	20	в	mg/Kg	20	6/17/2014 2:06:51 PM	13696
Lead	0.73	0.25		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Manganese	41	0.10		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Selenium	ND	2.5		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Silver	ND	0.25		mg/Kg	1	6/17/2014 1:55:52 PM	13696
Zinc	8.7	2.5		mg/Kg	1	6/17/2014 1:55:52 PM	13696
EPA METHOD 418.1: TPH						Analyst	JME
Petroleum Hydrocarbons, TR	38	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 1(
	o	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report	
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#### Lab Order 1406548

Date Reported: 6/23/2014

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L LandfarmProject:Vadose Zone Repeats 5 yr Metals Cell 7Lab ID:1406548-002Matrix: SOIL

Client Sample ID: Cell #7 Random Select #2 Collection Date: 6/11/2014 8:39:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.048		mg/Kg	1	6/14/2014 6:51:54 AM	13664
Toluene	ND	0.048		mg/Kg	1	6/14/2014 6:51:54 AM	13664
Ethylbenzene	ND	0.048		mg/Kg	1	6/14/2014 6:51:54 AM	13664
Xylenes, Total	ND	0.096		mg/Kg	1	6/14/2014 6:51:54 AM	13664
Surr: 4-Bromofluorobenzene	98.2	80-120		%REC	1	6/14/2014 6:51:54 AM	13664
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	440	30		mg/Kg	20	6/13/2014 1:06:44 PM	13690
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 2:01:55 PM	13710
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	6.6	2.5		mg/Kg	1	6/17/2014 2:08:13 PM	13696
Barium	300	0.50		mg/Kg	5	6/17/2014 2:09:39 PM	13696
Cadmium	ND	0.10		mg/Kg	1	6/17/2014 2:08:13 PM	13696
Chromium	1.6	0.30		mg/Kg	_1	6/17/2014 2:08:13 PM	13696
Copper	2.1	· 0.30		mg/Kg	1	6/17/2014 2:08:13 PM	13696
Iron	1100	5.0	В	mg/Kg	5	6/17/2014 2:09:39 PM	13696
Lead	ND	0.25		mg/Kg	1	6/17/2014 2:08:13 PM	13696
Manganese	17	0.10		mg/Kg	1	6/17/2014 2:08:13 PM	13696
Selenium	ND	2.5		mg/Kg	1	6/17/2014 2:08:13 PM	13696
Silver	ND	0.25		mg/Kg	1	6/17/2014 2:08:13 PM	13696
Zinc	3.6	2.5		mg/Kg	1	6/17/2014 2:08:13 PM	13696
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
· .	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 10
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 10
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits		· · ·	

**Analytical Report** Lab Order 1406548 Date Reported: 6/23/2014

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Vadose Zone Repeats 5 yr Metals Cell 7 **Project:** Lab ID: 1406548-003 Matrix: SOIL Client Sample ID: Cell #7 Random Select #3 Collection Date: 6/11/2014 9:02:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.047		mg/Kg	1	6/14/2014 7:21:59 AM	13664
Toluene	ND	0.047		mg/Kg	1	6/14/2014 7:21:59 AM	13664
Ethylbenzene	ND	0.047		mg/Kg	1	6/14/2014 7:21:59 AM	· 13664
Xylenes, Total	ND	0.094		mg/Kg	1	6/14/2014 7:21:59 AM	13664
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	6/14/2014 7:21:59 AM	13664
EPA METHOD 300.0: ANIONS						Analyst	JRR
Chloride	57	30		mg/Kg	20	6/13/2014 1:19:09 PM	13690
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 2:03:43 PM	13710
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	9.3	2.5		mg/Kg	1	6/17/2014 2:11:00 PM	13696
Barium	310	0.20		mg/Kg	2	6/17/2014 2:12:21 PM	13696
Cadmium	ND	0.10		mg/Kg	1	6/17/2014 2:11:00 PM	13696
Chromium	1.9	0.30		mg/Kg	1	6/17/2014 2:11:00 PM	13696
Copper	1.1	0.30		mg/Kg	1	6/17/2014 2:11:00 PM	13696
iron	1600	10	в	mg/Kg	10	6/17/2014 2:13:43 PM	13696
Lead	ND	0.25		mg/Kg	<u>`</u> 1	6/17/2014 2:11:00 PM	13696
Manganese	17	0.10		mg/Kg	1	6/17/2014 2:11:00 PM	13696
Selenium	ND	2.5		mg/Kg	1	6/17/2014 2:11:00 PM	13696
Silver	ND	0.25		mg/Kg	1	6/17/2014 2:11:00 PM	13696
Zinc	4.8	2.5		mg/Kg	1	6/17/2014 2:11:00 PM	13696
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	43	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the
	Ε	Value above quantitation range	Н	Holding times for pre
	J	Analyte detected below quantitation limits	ND	Not Detected at the R
	0	RSD is greater than RSDlimit	Р	Sample pH greater th

- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- he associated Method Blank
- eparation or analysis exceeded

Reporting Limit

- RL Reporting Detection Limit

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**Analytical Report** 

Lab Order 1406548

Date Reported: 6/23/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Lab ID:

**Project:** Vadose Zone Repeats 5 yr Metals Cell 7 Client Sample ID: Cell #7 Random Select #4 Collection Date: 6/11/2014 9:31:00 AM

1406548-004 Matrix: SOIL Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RLO	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analys	t: NSB
Benzene	ND	0.047		mg/Kg	1	6/14/2014 7:52:07 AM	13664
Toluene	· ND ·	0.047		mg/Kg	1	6/14/2014 7:52:07 AM	13664
Ethylbenzene	ND	0.047		mg/Kg	1	6/14/2014 7:52:07 AM	13664
Xylenes, Total	ND	0.094		mg/Kg	. 1	6/14/2014 7:52:07 AM	13664
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/14/2014 7:52:07 AM	13664
EPA METHOD 300.0: ANIONS						Analys	t: JRR
Chloride	50	-30		mg/Kg	20	6/13/2014 1:56:24 PM	13690
EPA METHOD 7471: MERCURY						Analys	: MMD
Mercurý	ND	0.033		mg/Kg	1	6/16/2014 2:05:33 PM	13710
EPA METHOD 6010B: SOIL METALS						Analys	t: ELS
Arsenic	ND	2.4		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Barium	83	0.096		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Cadmium	ND	0.096		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Chromium	4.5	0.29		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Copper	1.9	0.29		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Iron	4600	19	в	mg/Kg	20	6/17/2014 2:17:47 PM	13696
Lead	0.82	0.24		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Manganese	50	0.096		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Selenium	ND	2.4		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Silver	ND	0.24		mg/Kg	1	6/17/2014 2:15:04 PM	13696
Zinc	9.8	2.4		mg/Kg	1	6/17/2014 2:15:04 PM	13696
EPA METHOD 418.1: TPH						Analys	t: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

Qualifiers:	*	Value exceeds Maximum Contaminant Level.		•	в	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range			Н	Holding times for preparation or analysi	s exceeded
	·J	Analyte detected below quantitation limits		N	JD	Not Detected at the Reporting Limit	Page $4 \text{ of } 10$
	0	RSD is greater than RSDlimit			Р	Sample pH greater than 2.	1 age 4 01 10
	R	RPD outside accepted recovery limits		F	Ъ	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits					

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1406548

23-Jun-14

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Client:	J & L	Landfarm							
Project:	Vados	se Zone Repeats 5	yr Metals Cell	17		,			
Sample ID	MB-13690	SampType:	MBLK	Test	Code: EPA Method	300.0: Anions			
Client ID:	PBS	Batch ID:	13690	Ru	inNo: <b>19289</b>				
Prep Date:	6/13/2014	Analysis Date:	6/13/2014	Se	eqNo: <b>557619</b>	Units: mg/Kg			
Analyte		Result PC	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit %	6RPD	RPDLimit	Qual
Chloride		ND	1.5						
Sample ID	LCS-13690	SampType:	LCS	Test	Code: EPA Method	300.0: Anions			
Client ID:	LCSS	Batch ID:	13690	Ru	inNo: <b>19289</b>				
Prep Date:	6/13/2014	Analysis Date:	6/13/2014	Se	eqNo: <b>557620</b>	Units: mg/Kg		·	
Analyte		Result PC	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit %	6RPD	RPDLimit	Qual
Chloride		14	1.5 15.00	0	95.0 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 greater than 2.
- RL Reporting Detection Limit

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1406548

WO#:

23-Jun-14

Client: Project:	J & L Vado	Landfarm se Zone Repe	ats 5 yr	Metals Cell	17						
Sample ID	MB-13667	Samp	Гуре: МІ	BLK	Tes	tCode: E	PA Method	418.1: TPH			
Client ID:	PBS	Batc	h ID: 13	667	а — <b>Б</b>	RunNo: 1	9239	•	11.0		
Prep Date:	6/12/2014	Analysis I	Date: 6/	/13/2014	1. S	GeqNo: 5	56588	Units: mg/k	(g		•
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydro	ocarbons, TR	ND	20	_			_				
Sample ID	LCS-13667	Samp	Type: LC	s	Tes	tCode: E	PA Method	418.1: TPH	<u>،                                     </u>		
Client ID:	LCSS	Batc	h ID: 13	667	F	RunNo: 1	9239	•	,		
Prep Date:	6/12/2014	Analysis [	Date: 6/	13/2014		SegNo: 5	56589	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydro	ocarbons, TR	110	20	100.0	0	105	80	120			
Sample ID	LCSD-13667	Samp	Type: LC	SD .	Tes	tCode: E	PA Method	418.1: TPH		· · · · · · · · · · · · · · · · · · ·	
Client ID:	LCSS02	Batc	h ID: 13	667	F	RunNo: 1	9239		•		
Prep Date:	6/12/2014	Analysis I	Date: 6/	13/2014	5	SeqNo: 5	56590	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydro	ocarbons, TR	100	20	100.0	0	104	80	120	1.32	20	

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
- $H \rightarrow Holding$  times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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23-Jun-14

WO#:

Client:J & L IProject:Vadose	Landfarm e Zone Repe	ats 5 yr	Metals Cel	17						
Sample ID MB-13664	Samp1	ype: ME	 BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: 13	664	F	RunNo: 1	9246				
Prep Date: 6/12/2014	Analysis E	Date: 6/	13/2014	5	GeqNo: 5	57176	Units: mg/k	٩		
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		111	80	120			
Sample ID LCS-13664	Samp1	Гуре: LC		Tes	tCode: E	PA Method	8021B: Vola	tiles		· <u>···</u> ····
Client ID: LCSS	Batcl	h ID: 13	664	F	RunNo: 1	9246				
Prep Date: 6/12/2014	Analysis E	Date: 6/	13/2014	S	SeqNo:, 5	57177	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.1	80	120			
Toluene	0.91	0.050	1.000	0	91.2	80	120		`	
Ethylbenzene	0.94	0.050	1.000	· 0	93.7	s × 80	120			
Xylenes, Total	2.9	0.10	3.000	0.	97.0	80	120			
Surr: 4-Bromofluorobenzene	1,1		1.000		106	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 greater than 2.
- RL Reporting Detection Limit

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1406548

Hall Environmental Analysis Laboratory, in	is Laboratory, Inc.	mental Ana	Hall Env
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WO#: 1406548

23-Jun-14

Client: Project:	J & L Lan Vadose Z	dfarm one Repea	its 5 yr	Metals Cell	7		<u>.</u>				
Sample ID	MB-13710	SampT	ype: MI	BLK · ·	Tes	tCode: E	PA Method	7471: Mercu	ry .		
Client ID:	PBS	Batch	1D: 13	710	F	RunNo: 1	9298				
Prep Date:	6/16/2014	Analysis D	ate: 6/	16/2014	S	SegNo: 5	57851	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.033								
Sample ID	LCS-13710	SampT	ype: LC	s	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID:	LCSS	Batch	1D: 13	710	R	RunNo: 1	9298		• .		
Prep Date:	6/16/2014	Analysis D	ate: 6/	16/2014	S	SeqNo: 5	57852	Units: mg/K	g,		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.18	0.033	0.1667	0	108	80	120			
Sample ID	1406548-001BMS	SampT	ype: M:		Test	tCode: E	PA Method	7471: Mercu	ry		
Client ID:	Cell #7 Random S	el Batch	1D: 13	710	R	RunNo: 1	9298				
							2220				
Prep Date:	6/16/2014	Analysis D	ate: 6/	16/2014	S	SeqNo: 5	57854	Units: mg/K	g		
Analyte	6/16/2014	Analysis D Result	ate: 6/	16/2014 SPK value	SPK Ref Val	SeqNo: 5 %REC	57854	Units: <b>mg/K</b> HighLimit	<b>g</b> %RPD	RPDLimit	Qual
Analyte Mercury	6/16/2014	Analysis D Result 0.17	eate: 6/	16/2014 SPK value 0.1602	SPK Ref Val 0.005521	SeqNo: 5 %REC 103	557854 LowLimit 75	Units: <b>mg/K</b> HighLimit 125	g %RPD	RPDLimit	Qual
Analyte Mercury Sample ID	6/16/2014 1406548-001BMSE	Analysis D Result 0.17 SampT	pate: 6/ PQL 0.032 ype: MS	16/2014 SPK value 0.1602	SPK Ref Val 0.005521 Test	SeqNo: 5 %REC 103 tCode: E	57854 LowLimit 75 PA Method	Units: mg/K HighLimit 125 7471: Mercur	g %RPD 	RPDLimit	Qual
Analyte Mercury Sample ID Client ID:	6/16/2014 1406548-001BMSE Ceil #7 Random S	Analysis D Result 0.17 ) SampT el Batch	Pate: 6/ PQL 0.032 ype: MS	16/2014 SPK value 0.1602 SD 710	SPK Ref Val 0.005521 Tesi	SeqNo: 5 %REC 103 tCode: E RunNo: 1	57854 LowLimit 75 PA Method 9298	Units: mg/K HighLimit 125 7471: Mercur	9 %RPD 	RPDLimit	Qual
Analyte Mercury Sample ID Client ID: Prep Date:	6/16/2014 1406548-001BMSE Ceil #7 Random S 6/16/2014	Analysis D Result 0.17 ) SampT el Batch Analysis D	PQL 0.032 ype: MS 1D: 13 ate: 6/	16/2014 SPK value 0.1602 SD 710 16/2014	SPK Ref Val 0.005521 Tesi R S	SeqNo: 5 %REC 103 tCode: E RunNo: 1 SeqNo: 5	57854 LowLimit 75 PA Method 9298 557855	Units: mg/K HighLimit 125 7471: Mercur Units: mg/K	9 %RPD 7y 9	RPDLimit	Qual
Analyte Mercury Sample ID Client ID: Prep Date: Analyte	6/16/2014 1406548-001BMSE Ceil #7 Random S 6/16/2014	Analysis D Result 0.17 ) SampT el Batch Analysis D Result	PQL PQL 0.032 ype: MS 1D: 13 ate: 6/ PQL	16/2014 SPK value 0.1602 SD 710 16/2014 SPK value	S SPK Ref Val 0.005521 Test R SPK Ref Val	SeqNo: 5 %REC 103 tCode: E RunNo: 1 SeqNo: 5 %REC	2290 257854 LowLimit 75 PA Method 9298 257855 LowLimit	Units: mg/K HighLimit 125 7471: Mercur Units: mg/K HighLimit	g %RPD ry g %RPD	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1406548

23-Jun-14

J & L Landfarm **Client: Project:** Vadose Zone Repeats 5 yr Metals Cell 7 TestCode: EPA Method 6010B: Soil Metals Sample ID MB-13696 SampType: MBLK Client ID: PBS Batch ID: 13696 RunNo: 19303 Units: mg/Kg SegNo: 557921 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Quai Analyte ND 2.5 Arsenic ND 0.10 Barium Cadmium ND 0.10 ND 0.30 Chromium Copper ND 0.30 Lead ND 0.25 ND 0.10 Manganese ND Selenium 2.5 Silver ND 0.25 Zinc ND 2.5 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg SPK value SPK Ref Val **HighLimit** Analyte Result PQL %REC LowLimit %RPD RPDLimit Qual 24 2.5 25.00 0 95.3 80 120 Arsenic Barium 24 0.10 25.00 0 95.1 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 80 0.30 0 94.9 120 Chromium 24 25.00 Copper 25 0.30 25.00 0 101 80 120 Lead 23 0.25 25.00 0 90.5 80 120 24 0.10 25.00 0 95.1 80 120 Manganese Selenium 23 2.5 25.00 0 91.2 80 120 Silver 4,9 0.25 5,000 0 97.1 80 120 Zinc 23 25.00 ٥ 93.1 80 120 2.5 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B; Soil Metals Client ID: PBS RunNo: 19320 Batch ID: 13696 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg %REC Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit %RPD RPDLimit Qual 1.5 1.0 íron TestCode: EPA Method 6010B: Soil Metals Sample ID LCS-13696 SampType: LCS Client ID: LCSS RunNo: 19320 Batch ID: 13696 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558463 Units: mg/Kg %RPD RPDLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit Qual 25.00 80 120 25 1.0 0 99.6 в iron

#### **Oualifiers**:

- ٠ 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
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- RL Reporting Detection Limit

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Client: Project: J & L Landfarm

Vadose Zone Repeats 5 yr Metals Cell 7

Sample ID	1406548-001BMS SampType: MS				TestCode: EPA Method 6010B: Soil Metals							
Client ID:	Cell #7 Random S	el Batch	ID: 13	696	R	unNo: 1	9320					
Prep Date:	6/13/2014	Analysis D	ate: 6/	17/2014	: S	eqNo: 5	58880	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		26	2.5	25.15	0	101	75	125				
Barium		100	0.10	25.15	75.99	106	75	125				
Cadmium		23	0.10	25.15	0	90.1	75	125				
Chromium		26	0.30	25.15	4.055	89.2	75	125	1			
Copper		26	0.30	25.15	1.277	96.4	75	125				
Lead		22	0.25	25.15	0.7271	84.9	75	125				
Manganese		65	0.10	25.15	40.75	94.9	75	125				
Selenium		20	2.5	25.15	0	79.7	75	125				
Silver		4.6	0.25	5.031	0	92.2	75	125				
Zinc		30	2.5	25.15	8.680	86.1	75	125				

Sample ID	1406548-001BMSD SampType: MSD				TestCode: EPA Method 6010B: Soil Metals							
Client ID:	Cell #7 Random Sel Batch ID: 13696			F	lunNo: 1							
Prep Date:	6/13/2014	13/2014 Analysis Date: 6/17/2014			5	eqNo: 5	58881	Units: mg/M				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		25	2.5	25.19	0	100	75	125	0.832	20		
Barium		190	0.10	25.19	75.99	444	75	125	58.6	20	RS	
Cadmium		22	0.10	25.19	0	86.3	75	125	<b>4.17</b>	20		
Chromium		25	0.30	25.19	4.055	83.9	75	125	5.10	20		
Copper		27	0.30	25.19	1.277	103	75	125	5.96	20		
Lead		21	0.25	25.19	0.7271	81.6	75	125	3.62	20		
Manganese		1100	0.10	25.19	40.75	4320	75	125	178	20	ERS	
Selenium		19	· 2.5	25,19	0	77.0	75	125	3.22	20		
Silver		4.6	0.25	5.037	0	92.0	75	125	0.0537	20		
Zinc		33	. 2.5	25.19	8.680	97.6	75	125	9.20	20		

#### 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 greater than 2.
- RL Reporting Detection Limit

Page 10 of 10

23**-J**un-14

1406548

WO#:
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: J & L LANDFARM	Work Order Number:	1406548		RcptNo:	1
Received by/date:	06/12/14				
Logged By: Ashley Gallegos	6/12/2014 9:00:00 AM		AF		
Completed By: Ashley Gallegos	6/12/2014 9:47:33 AM		AJ		-
Reviewed By:	w. halut		U		
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?		<u>FedEx</u>			
Loa In					
4. Was an attempt made to cool the sam	ples?	Yes 🗸	No	NA .	
5. Were all samples received at a tempera	ature of >0° C to 6.0°C	Yes 🖌	No	NA	
6. Sample(s) in proper container(s)?		Yes 🔽	No 🔛		ĸ
7. Sufficient sample volume for indicated t	test(s)?	Yes 🖌	No		
8. Are samples (except VOA and ONG) p	roperly 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 🔽		
		·	r :	# of preserved bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custod	<b>(v)</b>	Yes 🗹	No	for pH: (<2	or >12 unless noted
13 Are matrices correctly Identified on Cha	ain of Custody?	Yes 🖌	No	Adjusted?	
14, is it clear what analyses were requested	d?	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 LÌ	No	NA 🖌	
Person Notified:	Date:				•
By Whom:	Via:	eMail	Phone 🗍 Fax	i in Person	÷
Regarding:			a a se terre a company a compa		
Client Instructions:			1		
17. Additional remarks:					
18. <u>Cooler Information</u>		<b>.</b>			
Cooler No Temp °C Condition	Yes	Seal Date	Signed By		
				1	· · · .·
Page 1 of 1	· · · · · · · · · · · · · · · · · · ·				· •
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Clienti	hain	of-Cu	istody Record	Turn-Around	Time:					H	ALI	. E	NV	/IF	20	Nľ	1EF	NTA	L
				Standard	🗆 Rush					A	IA	LY:	519	5 L	AE	30	RA'	TOF	YS
<u>J+</u>	<u>L L</u>	andfa	TM	Project Name	ë zone	repeats				w	ww.ha	allenv	/iron	ment	tal.co	m			
Mailing	Address	: 0		5xrr	netals	coll 7		49	01 Ha	wkins	NE	- Ait	ouqu	erqu	e, NM	M 87	109		
PO	Box	356	Hobbs NM 88241	Project #:	<u> </u>			Τe	el. 504	5-345-	3975	. 1	Fax	505-	345-	4107	7		
Phone	#: <u>57</u>	5-63	1-5765									Anal	ysis	Req	uest				
email o	r Fax#:	<u>jl rob</u>	9697 Dad.com	Project Mana	iger:		E	( <u>Y</u> L	С Ю		i		O4)						
QA/QC	Package:	•					802	as o	N.		<u>(</u> )		04, S	CB'					
Stan	Idard		Level 4 (Full Validation)			· · · · · · · · · · · · · · · · · · ·	3's (	ũ	8 N		SIN		P P	Ъ Б					
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Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL No.	3 M+ MTB	X + MTB	1 8015B (	Method	1's (8310	A 8 Met	ons (FC	1 Pesticio	OB (VOA)	0 (Semi-\	ST.		) selddu
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Date:	Time:	Relinquish	ed by:	Received by:	L	Date Time	Per												
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Uatê:	lime:	rkeiinqui s h	ea by:	Received by	/	Date Time	F\$	7 L			~		F 4	- T	•	. •*		•	,

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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratorles. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 23, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Cell 23 Vadose Zone Repeat 5 yr Metals

OrderNo.: 1406550

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/12/2014 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 <u>www.hallenvironmental.com</u> 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,

John Collare U

John Caldwell Supervisor 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1406550 Date Reported: 6/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Project: Cell 23 Vadose Zone Repeat 5 yr Metals 1406550-001 Matrix: SOIL Lab ID:

Client Sample ID: Cell 23 Random Select #1 Collection Date: 6/10/2014 7:55:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL C	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES	· · · · · · · · · · · · · · · · · · ·					Analyst	NSB
Benzene	ND	0.047		mg/Kg	1	6/16/2014 1:34:31 PM	13666
Toluene	ND	0.047		mg/Kg	1	6/16/2014 1:34:31 PM	13666
Ethylbenzene	ND	0.047		mg/Kg	1	6/16/2014 1:34:31 PM	13666
Xylenes, Total	ND	0.094		mg/Kg	1	6/16/2014 1:34:31 PM	13666
Surr: 4-Bromofluorobenzene	99.4	80-120		%REC	1	6/16/2014 1:34:31 PM	13666
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	410	30		mg/Kg	20	6/13/2014 2:08:49 PM	13690
EPA METHOD 7471: MERCURY						Analyst	: MMD
Mercury	ND	0.031		mg/Kg	1	6/16/2014 2:07:24 PM	13710
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	ND	2.5		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Barium	38	0.099		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Cadmium	ND	0.099		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Chromium	4.4	0.30		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Copper	2.5	0.30		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Iron	4300	50	В	mg/Kg	50	6/18/2014 11:05:24 AM	13696
Lead	1.1	0.25		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Manganese	61	0.099		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Selenium	ND	2.5		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Silver	ND	0.25		mg/Kg	1	6/17/2014 2:24:29 PM	13696
Zinc	12	2.5		mg/Kg	1	6/17/2014 2:24:29 PM	13696
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

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 J

- 0 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 В
- Н Holding times for preparation or analysis exceeded ND
 - Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**
- Page 1 of 9

Hall Environmental Analysis Laboratory, Inc. Date Reported: 6/23/2014										
CLIENT: J & L Landfarm			Client Sample	e ID: Ce	Il 23 Random Select #2	2				
Project: Cell 23 Vadose Zone Repeat 5	yr Metals		Collection I)ate: 6/1	0/2014 8:15:00 AM	·				
Lab ID: 1406550-002	Matrix:	SOIL	Received I	Date: 6/1	2/2014 9:00:00 AM					
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch				
EPA METHOD 8021B: VOLATILES		· <u> </u>			Analyst	: NSB				
Benzene	ND	0.049	mg/Kg	1	6/16/2014 2:03:11 PM	13666				
Toluene	ND	0.049	mg/Kg	1	6/16/2014 2:03:11 PM	13666				
Ethylbenzene	ND	0.049	mg/Kg	1	6/16/2014 2:03:11 PM	13666				
Xylenes, Total	ND	0.097	mg/Kg	1	6/16/2014 2:03:11 PM	13666				
Surr: 4-Bromofluorobenzene	97.8	80-120	%REC	1	6/16/2014 2:03:11 PM	13666				
EPA METHOD 300.0: ANIONS					Analyst	JRR				
Chloride	160	30	mg/Kg	20	6/13/2014 2:21:13 PM	13690				
EPA METHOD 7471: MERCURY					Analyst	MMD				
Mercury	' ND	0.031	mg/Kg	1	6/16/2014 2:09:14 PM	13710				
EPA METHOD 6010B: SOIL METALS				<i>,</i>	Analyst	ELS				
Arsenic	6.4	2.5	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Barium	200	0.098	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Cadmium	ND	0.098	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Chromium	2.4	0.29	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Соррег	2.1	0.29	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Iron	2200	9.8	B mg/Kg	10	6/17/2014 2:29:59 PM	13696				
Lead	ND	0.25	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Manganese	28	0.098	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Selenium	ND	2.5	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Silver	ND	0.25	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
Zinc	6.2	2.5	mg/Kg	1	6/17/2014 2:28:37 PM	13696				
EPA METHOD 418.1: TPH					Analyst	JME				
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	6/13/2014 12:00:00 PM	13667				

Analytical Report Lab Order 1406550

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
·	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of Q
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01)
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	· · ·		

Analytical Report Lab Order 1406550 Date Reported: 6/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Cell 23 Vadose Zone Repeat 5 yr Metals **Project:** 1406550-003 Lab ID: Matrix: SOIL Client Sample ID: Cell 23 Random Select #3 Collection Date: 6/10/2014 8:33:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.049		mg/Kg	1	6/16/2014 2:31:54 PM	13666
Toluene	ND	0.049		mg/Kg	1	6/16/2014 2:31:54 PM	13666
Ethylbenzene	ND	0.049		mg/Kg	1	6/16/2014 2:31:54 PM	13666
Xylenes, Total	ND	0.097		mg/Kg	1	6/16/2014 2:31:54 PM	13666
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/16/2014 2:31:54 PM	13666
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	170	30		mg/Kg	20	6/13/2014 2:33:37 PM	13690
EPA METHOD 7471: MERCURY						Analyst	MMD
Mercury	ND	0.034		mg/Kg	1	6/16/2014 2:14:51 PM	13710
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	4.3	2.5		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Barium	160	0.099		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Cadmium	ND	0.099		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Chromium	3.4	0.30		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Copper	2.7	0.30		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Iron	3600	20	В	mg/Kg	20	6/17/2014 2:32:46 PM	13696
Lead	1.1	0.25		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Manganese	42	0.099		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Selenium	ND	2.5		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Silver	ND	0.25		mg/Kg	1	6/17/2014 2:31:22 PM	13696
Zinc	9.4	2.5		mg/Kg	1	6/17/2014 2:31:22 PM	13696
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	130	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

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 E
- Analyte detected below quantitation limits J
- 0 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 В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Ρ Sample pH greater than 2.
- Reporting Detection Limit RL
- Page 3 of 9

Analytical Report

Lab Order 1406550

Date Reported: 6/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

1

Project:Cell 23 Vadose Zone Repeat 5 yr MetalsLab ID:1406550-004Matrix: SOIL

Client Sample ID: Cell 23 Random Select #4 Collection Date: 6/10/2014 8:52:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.048		mg/Kg	· 1	6/16/2014 3:00:37 PM	13666
Toluene	ND	0.048		mg/Kg	- 1	6/16/2014 3:00:37 PM	13666
Ethylbenzene	. ND	0.048		mg/Kg	1	6/16/2014 3:00:37 PM	13666
Xylenes, Total	ND .	0.095		mg/Kg	1	6/16/2014 3:00:37 PM	13666
Surr: 4-Bromofluorobenzene	99.4	80-120		%REC	1	6/16/2014 3:00:37 PM	13666
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	1100	. 30		mg/Kg	20	6/13/2014 2:46:02 PM	13690
EPA METHOD 7471: MERCURY						Analyst	: MMD
Mercury	0.072	0.033		mg/Kg	· 1.	6/16/2014 2:16:43 PM	13710
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	ND	2.5		mg/Kg	1	6/17/2014 2:34:08 PM	13696
Barium	44	0.10		mg/Kg	1	6/17/2014 2:34:08 PM	13696
Cadmium	ND	0.10		mg/Kg	1	6/17/2014 2:34:08 PM	13696
Chromium	6.0	0.30		mg/Kg	· 1	6/17/2014 2:34:08 PM	13696
Copper	3.7	0.30		mg/Kg	1	6/17/2014 2:34:08 PM	13696
Iron	7100	50	в	mg/Kg	50	6/17/2014 2:36:50 PM	13696
Lead	1.8	0.25		mg/Kg	1	6/17/2014 2:34:08 PM	13696
Manganese	82	0.10		mg/Kg	1	6/17/2014 2:34:08 PM	13696
Selenium	ND	2.5		mg/Kg	1	6/17/2014 2:34:08 PM	13696
Silver	ND	0.25		mg/Kg	1	6/17/2014 2:34:08 PM	13696
Zinc	16	2.5		mg/Kg	1	6/17/2014 2:34:08 PM	13696
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	23	20		mg/Kg	· 1	6/13/2014 12:00:00 PM	13667

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND.	Not Detected at the Reporting Limit Page 4 of 9
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

WO#: 1406550

23-Jun-14

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J & L I Cell 23	Landfarm Vadose Zone R	epeat 5 yr Meta	als			×		
Sample ID M Client ID: F	MB-13690 PBS 6/13/2014	SampType: Batch ID: Analysis Date:	MBLK 13690 6/13/2014	Tes	Code: EPA Metho RunNo: 19289 GeaNo: 557619	od 300.0: Anions Units: ma/K			<u> </u>
Analyte		Result PC	QLSPK value	SPK Ref Val	%REC LowLim	it HighLimit	%RPD	RPDLimit	Qual
Sample ID L Client ID: L	_CS-13690 _CSS	SampType: Batch ID:	LCS 13690	Tes	tCode: EPA Metho RunNo: 19289	od 300.0: Anions	3	· · ·	
Prep Date: Analyte	6/13/2014	Analysis Date: Result P0	6/13/2014 QL SPK value	SPK Ref Val	SeqNo: 557620 %REC LowLim	Units: mg/K it HighLimit	g %RPD	RPDLimit	Qual
Chloride	··· ···· ·····························	14	1.5 15.00	0	95.0 9	0 110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Е 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 S
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Sample pH greater than 2. Р
- RL

Page 5 of 9

Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406550

23-Jun-14

Client:J & LProject:Cell 2	Landfarm 3 Vadose Zone Repeat 5 yr Meta	als
Sample ID MB-13667	SampType: MBLK	TestCode: EPA Method 418.1: TPH
Client ID: PBS	Batch ID: 13667	RunNo: 19239
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556588 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	ND 20	
Sample ID LCS-13667	SampType: LCS	TestCode: EPA Method 418.1: TPH
Client ID: LCSS	Batch ID: 13667	RunNo: 19239
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556589 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	110 20 100.0	0 105 80 120
Sample ID LCSD-13667	SampType: LCSD	TestCode: EPA Method 418.1: TPH
Client ID: LCSS02	Batch ID: 13667	RunNo: 19239
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556590 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	100 20 100.0	0 104 80 120 1.32 20

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 greater than 2.
- RL Reporting Detection Limit

Page 6 of 9

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, I	ıc.

Client: Project:	J & L La Cell 23	andfarm Vadose Zoi	ne Repe	at 5 yr Met	als						
Sample ID	MB-13666	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 13	666	F	RunNo: 1	9306				
Prep Date:	6/12/2014	Analysis [Date: 6/	16/2014	S	SeqNo: 5	58130	Units: mg/k	٢g		
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	nofluorobenzene	1.0		1.000		100	80	120			
Sample ID	LCS-13666	Samp	ype: LC	S	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batcl	h ID: 13	666	F	RunNo: 1	9306				
Prep Date:	6/12/2014	Analysis D	Date: 6/	16/2014	S	SeqNo: 5	58131	Units: mg/h	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.050	1.000	0	106	80	120	_		
Toluene		1.0	0.050	1.000	0	105	80	120			
Ethylbenzene		1.1	0.050	1.000	0	107	[`] 80	120			
Xylenes, Total		3.2	0.10	3.000	0	106	80	120			
Surr: 4-Brom	nofluorobenzene	1.1		1.000		107	80	120			
Sample ID	1406550-001AMS	SampT	ype: MS	3	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	Cell 23 Random	Sel Batcl	h ID: 13	666	F	RunNo: 1	9306				
Prep Date:	6/12/2014	Analysis [Date: 6/	16/2014	S	SeqNo: 5	58133	Units: mg/H	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.93	0.047	0.9381	0	99.6	67.4	135			
Toluene		0.94	0.047	0.9381	0	100	72.6	135			
Ethylbenzene		0.96	0.047	0.9381	0	102	69.4	143			
Xylenes, Total		2.9	0.094	2.814	0	102	70.8	144			

											_
Sample ID 1406550-001AM	SD Samp	Гуре: М	SD	Tes	tCode: E	PA Method	8021B: Vola	tiles			
Client ID: Cell 23 Random	Sel Batc	h ID: 13	666	F	RunNo: 1	9306					
Prep Date: 6/12/2014	Analysis [Date: 6/	16/2014	5	SeqNo: 5	58134	Units: mg/k	<g< th=""><th></th><th></th><th></th></g<>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.92	0.047	0.9434	0	97.1	67.4	135	1.99	20		
Toluene	0.92	0.047	0.9434	0	97.8	72.6	135	1.78	20		
Ethylbenzene	0.96	0.047	0.9434	0	101	69.4	143	0.438	20		
Xylenes, Total	2.9	0.094	2.830	0	101	70.8	144	0.0712	20		
Surr: 4-Bromofluorobenzene	1.0		0.9434		106	80	120	0	0		

0.9381

Qualifiers:

Client: Project:

Analyte Benzene Toluene Ethylbenzene Xylenes, Total

Analyte Benzene Toluene Ethylbenzene Xylenes, Total

Analyte Benzene Toluene Ethylbenzene Xylenes, Total

Surr: 4-Bromofluorobenzene

٠ Value exceeds Maximum Contaminant Level.

0.99

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

120

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

106

80

- Sample pH greater than 2. Р
- RL Reporting Detection Limit

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- 23-Jun-14
- 1406550

WO#:

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406550

23-Jun-14

Chent: Project:	J & L Landfarm Cell 23 Vadose Z	one Repe	at 5 yr Met	als			•		•	
Sample ID MB-13 Client ID: PBS Prep Date: 6/16/2	710 Sam Bal 2014 Analysis	oType: Mi ch ID: 13 Date: 6	BLK 710 /16/2014	Tes F S	tCode: E RunNo: 1 SeqNo: 5	PA Method 9298 57851	7471: Mercu Units: mg/K	ry (g		
Analyte Mercury	Result	PQL 0.033	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID LCS-13		туре: LC		Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID: LCSS Prep Date: 6/16/2	Bal 1014 Analysis	ch ID: 13 Date: 6/	710 /16/2014	F	RunNo: 1 SeqNo: 5	9298 57852	Units: mg/K	٢g		
		POI	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte	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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

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[.]

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406550

23-Jun-14

Sample ID Chi 120 Yebbo 25/H Repture 3 fr Helals TestCode: EPA Method 60108: Soli Metals Sample ID MB-13686 SampType: MBLK TestCode: EPA Method 60108: Soli Metals Client ID: PES Batch ID: 13696 RumNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557921 Units: mg/Kg Analyte Result POL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arasenic ND 2.5 Stamm ND 0.10 Commun ND 0.30 Commun ND 0.25 Mingansee ND 0.25 Mingansee ND 0.25 Stampe ID LCS-13696 SampType: LCS TestCode: EPA Method 60108: Soli Metals Client ID: LCSS Batch ID: 13696 RumNo: 19303 Prep Date: 61/3/2014 Analysis Date: 61/4/2014 SeqNo: 567922 Units: mg/Kg Analysis Analyte Result POL SPK value: SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Client: Project:	J & L L Cell 23	andfarm Vadose Zor	e Rene	at 5 vr Met	alc								
Contraction Call Dir Monos Call Dir Dir Stress Result Prop Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557921 Units: mg/Kg Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic ND 2.5 Sample ID Contraction ND 0.10 Contraction ND 0.10 Contraction ND 0.25 Marganese ND 0.25 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metais Client ID: LCSS Batch ID: 13895 RunNo: 19303 Prep Date: 6/13/2014 Analytes SerRef Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 2.5 25.00 95.3 80 120 Calmium 24 0.10 25.00 94.3 80 120 Cadmium <t< th=""><th>Sample ID</th><th></th><th></th><th></th><th></th><th>ais Tes</th><th>tCode: F</th><th>PA Method</th><th></th><th>Metals</th><th><u> </u></th><th><u></u></th></t<>	Sample ID					ais Tes	tCode: F	PA Method		Metals	<u> </u>	<u></u>		
Order ID FLob Description Flob		DRS	Batch	אָרָי. אות ערו ו⊓י	506	F	RunNo: 1	19303						
Prep Date: orts/2014 Analysis Date: orts/2014 Set orts/2014 Other: might g Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte ND 0.10 Commun ND 0.10 Commun ND 0.25 Gambur ND 0.25 Setenium ND 2.5 Silver ND 0.25 Stereit ND 0.25 Setenium ND 2.5 Silver ND 0.25 Setenium ND 2.5 Sample ID LCS-13896 SampType: LCS TestCode: EPA Method 6010B: Soll Metals Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6r13/2014 Analysis Date: 6r14/2014 SeqNo: 55792 Units: mg/kg Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Areanic 24 0.10	Dron:Doto	F D 3		nto fi		, ,		5503	linito: m.m/M	ito: malla				
Analyte Result POL SPK value SPK ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arbenic ND 2.5 ND 0.10	Prep Date:	6/13/2014	Analysis L	ate: 6/	14/2014		segno: a	57921	Units. mg/r	.g				
Arsenic ND 2.5 Bairum ND 0.10 Cadmium ND 0.30 Copper ND 0.30 Copper ND 0.25 Manganese ND 0.25 Silver ND 0.25 Silver ND 0.25 Zinc ND 2.5 Sample ID LCSS Batch ID: 13896 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result POL SPK value SPK Value SeqNo: 557922 Units: mg/Kg Analyte Result POL SPK value SPK Value SeqNo: 557922 Units: mg/Kg Analyte Result POL SPK value SPK Value SeqNo: 557922 Units: mg/Kg Analyte Result POL SPK value SPK Value SeqNo: 557922 Units: mg/Kg Analyte Result POL SPK value SPK Value	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Barlum ND 0.10 Comhun ND 0.30 Copper ND 0.30 Lead ND 0.25 Manganese ND 0.10 Selenium ND 2.5 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arenic 24 0.10 25.00 0 95.1 80 120 Commun 24 0.10 25.00 0 94.3 80 120 Chromium 24 0.10 25.00 0 94.3 80 120 Commun 24 0.10 25.00 0 94.5 80 120 Chromium 24 0.10 25.00 0 94.1 80 120 Commun 24 0.10 25.00 0 94.1 80 120 Commun 24 0.10 25.00 0 94.1 80 120 Commun 24 0.10 25.00 0 94.3 80 120 Commun 24 0.10 25.00 0 94.1 80 120 Commun 24 0.10 25.00 0 94.1 80 120 Commun 24 0.10 25.00 0 94.1 80 120 Commun 24 0.10 25.00 0 94.3 80 120 Commun 24 0.10 25.00 0 94.1 80 120 Commun 23 0.25 25.00 0 91.2 80 120 Commun 23 0.25 25.00 0 91.2 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 60108: Soil Metals Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Frep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558463 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit MighLimit %RPD RPDLimit Qual Frep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558463 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit MighLimit %RPD RPDLimit Qual Frep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558463 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit MighLimit %RPD RPDLimit Qual	Arsenic		ND	2.5										
Cadmium ND 0.10 Copper ND 0.30 Copper ND 0.25 Maganese ND 0.25 Selenium ND 2.5 Silver ND 2.5 Sample ID LCS-13696 SampType: LCS Sample ID LCS-13696 SampType: Copper Sample ID LCSS Batch ID: 13269€ RunNo: Sample ID LCSS Batch ID: 13269€ RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Rg Analyte Result PQL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 0.10 25.00 0 94.3 80 120 Cadmium 24 0.10 25.00 0 90.5 80 120 Cadmium 24 0.10 25.00	Barium		ND	0.10										
Chromium ND 0.30 Copper ND 0.30 Lead ND 0.25 Manganese ND 0.10 Selenium ND 2.5 Silver ND 2.5 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soll Metals Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result POL SPK value SPK Value SPK Value SPK Value SPK Value SPK Value	Cadmium		ND	0.10		•	` .							
Copper ND 0.30 Lead ND 0.25 Manganese ND 0.25 Steinium ND 2.5 Sample ID LCS-13896 SampType: LCS TestCode: EPA Method 6010B: Soll Metals Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 2.5 25.00 0 95.3 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Copper 25 0.30 25.00 0 95.1 80 120 Copper 25 25.00 0 95.1 80 120 Semium 23 2.5 <t< td=""><td>Chromium</td><td></td><td>ND</td><td>0.30</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Chromium		ND	0.30										
Lead ND 0.25 Manganese ND 0.10 Selenium ND 2.5 Silver ND 2.5 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soll Metals Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC Low-Limit HighLimit %RPD RPDLimit Qual Assenic 24 0.10 25.00 0 95.1 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Copper 25 0.30 25.00 0 91.3 80 120 Manganese 24 0.10 25.00 0 91.8 120 500 Selenium 23 2.5 25.	Copper		ND	0.30										
Manganese ND 0.10 Selenium ND 2.5 Silver ND 2.5 Sample ID LCS-13696 SampType: LCS Sample ID LCS-13696 SampType: LCS Sample ID LCS. Batch ID: 13696 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result PQL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 0.10 25.00 0 95.3 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Copper 25 0.30 25.00 0 91.3 80 120 Genduim 24 0.10 25.00 0 91.2 80 120 Copper 25 0.30 25.00 0 91.2	Lead		ND	0.25										
Selenium ND 2.5 Silver ND 0.25 Zire ND 2.5 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soll Metals Client ID: LCSS Batch ID: 13996 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result PQL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 2.5 25.00 0 95.3 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Cadmium 24 0.30 25.00 0 91.4 80 120 Cadmium 23 2.5 25.00 0 91.8 80 120 Cadmium 23 2.5 25.00 93.1 80 120	Manganese		ND	0.10										
Silver ND 0.25 Zinc ND 2.5 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13896 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 0.10 25.00 0 95.1 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Cadmium 24 0.10 25.00 0 90.5 80 120 Cadmium 24 0.10 25.00 0 91.2 80 120 Lead 23 0.25 25.00 0 91.2 80 120 Siner 4.9 0.25	Selenium		ND	2.5										
Zinc ND 2.5 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 0.10 25.00 0 95.1 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Copper 25 0.30 25.00 0 94.9 80 120 Gamium 24 0.10 25.00 0 90.5 80 120 Copper 25 0.30 25.00 0 91.2 80 120 Sample ID MB-13696 SampType: MBLK	Silver		ND	0.25										
Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soll Metals Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result PQL SPK value SPK Net Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL SPK value SPK Net Value SPG No: 557922 Units: mg/Kg Analyte Result PQL SPK value SPK Net Value SeqNo: 557922 Units: Mg/Kg Analyte Result PQL SPK value SPK Net Value SeqNo: 557922 Units: Mg/Kg Analyte Result PQL 25.00 0 95.1 80 120 Second 101 80 120 Second 120 Second 120 Second 120 Seco	Zinc		ND	2.5			_			_				
Client ID: LCSS Batch ID: 13696 RunNo: 19303 Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 0.10 25.00 0 95.3 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Coronium 24 0.30 25.00 0 94.9 80 120 Copper 25 0.30 25.00 0 91.4 80 120 Maganese 24 0.10 25.00 0 95.1 80 120 Ster 4.9 0.25 5.000 0 95.1 80 120 Ster 2.3 2.5 25.00 0 93.1 80 120 Ster 2.3 2.5 5.000 0 93.1 80 120 <tr< td=""><td>Sample ID</td><td>LCS-13696</td><td>SampT</td><td>ype: LC</td><td>s</td><td>Tes</td><td>tCode: E</td><td>PA Method</td><td>6010B: Soil I</td><td>Metals</td><td></td><td></td></tr<>	Sample ID	LCS-13696	SampT	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil I	Metals				
Prep Date: 6/13/2014 Analysis Date: 6/14/2014 SeqNo: 557922 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 2.5 25.00 0 95.3 80 120 Barium 24 0.10 25.00 0 94.3 80 120 Cadmium 24 0.30 25.00 0 94.9 80 120 120 Corper 25 0.30 25.00 0 91.4 80 120 <td>Client ID:</td> <td>LCSS</td> <td>Batch</td> <td colspan="3">Batch ID: 13696</td> <td>RunNo: 1</td> <td>9303</td> <td></td> <td></td> <td></td> <td></td>	Client ID:	LCSS	Batch	Batch ID: 13696			RunNo: 1	9303						
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic 24 2.5 25.00 0 95.3 80 120 Banium 24 0.10 25.00 0 94.3 80 120 Cadmium 24 0.10 25.00 0 94.9 80 120 Commum 24 0.30 25.00 0 94.9 80 120	Prep Date:	6/13/2014	Analysis D	ate: 6/	14/2014	5	SeqNo: 5	557922	Units: mg/K	g				
Arsenic 24 2.5 25.00 0 95.3 80 120 Barium 24 0.10 25.00 0 95.1 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Chromium 24 0.30 25.00 0 94.9 80 120 Copper 25 0.30 25.00 0 90.5 80 120 Lead 23 0.25 25.00 0 95.1 80 120 Manganese 24 0.10 25.00 0 91.2 80 120 Selenium 23 2.5 25.00 0 91.2 80 120 Silver 4.9 0.25 5.000 0 93.1 80 120 Zinc 23 2.5 25.00 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals 20 Prep Date: 6/13/2014 Analysis Date: 6/17/2014	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Barium 24 0.10 25.00 0 95.1 80 120 Cadmium 24 0.10 25.00 0 94.3 80 120 Chromium 24 0.30 25.00 0 94.3 80 120 Copper 25 0.30 25.00 0 94.9 80 120 Copper 25 0.30 25.00 0 90.5 80 120 Manganese 24 0.10 25.00 0 95.1 80 120 Manganese 24 0.10 25.00 0 95.1 80 120 Selenium 23 2.5 25.00 0 91.2 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals E Client ID: PBS Batch ID: 13696 RunNo: 19320 E P Yerp Date: 6/13/2014 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit	Arsenic		24	2.5	25.00	0	95.3	80	120					
Cadmium 24 0.10 25.00 0 94.3 80 120 Chromium 24 0.30 25.00 0 94.9 80 120 Copper 25 0.30 25.00 0 101 80 120 Lead 23 0.25 25.00 0 90.5 80 120 Manganese 24 0.10 25.00 0 95.1 80 120 Selenium 23 2.5 25.00 0 91.2 80 120 Silver 4.9 0.25 5.000 0 97.1 80 120 Zinc 23 2.5 25.00 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals 120 Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowtLimit HighLimit %RPD <td>Barium</td> <td></td> <td>24</td> <td>0.10</td> <td>25.00</td> <td>0</td> <td>95.1</td> <td>80</td> <td>120</td> <td></td> <td></td> <td></td>	Barium		24	0.10	25.00	0	95.1	80	120					
Chromium 24 0.30 25.00 0 94.9 80 120 Copper 25 0.30 25.00 0 101 80 120 Lead 23 0.25 25.00 0 90.5 80 120 Manganese 24 0.10 25.00 0 95.1 80 120 Selenium 23 2.5 25.00 0 91.2 80 120 Silver 4.9 0.25 5.000 0 97.1 80 120 Zinc 23 2.5 25.00 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals 20 Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13696	Cadmium		24	0.10	25.00	0	94.3	80	120					
Copper 25 0.30 25.00 0 101 80 120 Lead 23 0.25 25.00 0 90.5 80 120 Manganese 24 0.10 25.00 0 95.1 80 120 Selenium 23 2.5 25.00 0 91.2 80 120 Salver 4.9 0.25 5.000 0 91.2 80 120 Silver 4.9 0.25 5.000 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: <td>Chromium</td> <td></td> <td>24</td> <td>0.30</td> <td>25.00</td> <td>0</td> <td>94.9</td> <td>80</td> <td>120</td> <td></td> <td></td> <td></td>	Chromium		24	0.30	25.00	0	94.9	80	120					
Lead 23 0.25 25.00 0 90.5 80 120 Manganese 24 0.10 25.00 0 95.1 80 120 Selenium 23 2.5 25.00 0 91.2 80 120 Silver 4.9 0.25 5.000 0 97.1 80 120 Zinc 23 2.5 25.00 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual fron 1.5 1.0	Copper		25	0.30	25.00	0	101	80	120					
Manganese 24 0.10 25.00 0 95.1 80 120 Selenium 23 2.5 25.00 0 91.2 80 120 Silver 4.9 0.25 5.000 0 97.1 80 120 Zinc 23 2.5 25.00 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 1.5 1.0	Lead		23	0.25	25.00	0	90.5	80	120					
Selenium 23 2.5 25.00 0 91.2 80 120 Silver 4.9 0.25 5.000 0 97.1 80 120 Zinc 23 2.5 25.00 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual iron 1.5 1.0 120	Manganese		24	0.10	25.00	0	95.1	80	120					
Silver 4.9 0.25 5.000 0 97.1 80 120 Zinc 23 2.5 25.00 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals 120 Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value	Selenium		23	2.5	25.00	0	91.2	80	120					
Zinc 23 2.5 25.00 0 93.1 80 120 Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual iron 1.5 1.0	Silver		4.9	0.25	5.000	0	97.1	80	120					
Sample ID MB-13696 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 1.5 1.0	Zinc		23	2.5	25.00	0	93.1	80	120					
Client ID: PBS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 1.5 1.0	Sample ID	MB-13696	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	6010B: Soil	Metals	<u></u>			
Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558462 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 1.5 1.0 Qual Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals	Client ID:	PBS	Batch	n ID: 13	696	F	RunNo: 1	9320						
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Iron 1.5 1.0 <t< td=""><td>Prep Date:</td><td>6/13/2014</td><td>Analysis D</td><td>)ate: 6/</td><td>17/2014</td><td>9</td><td>SeqNo: S</td><td>558462</td><td>Units: mg/K</td><td>g</td><td></td><td></td></t<>	Prep Date:	6/13/2014	Analysis D)ate: 6/	17/2014	9	SeqNo: S	558462	Units: mg/K	g				
Iron 1.5 1.0 Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558463 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Sample ID LCS-13696 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558463 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Iron		1.5	1.0										
Client ID: LCSS Batch ID: 13696 RunNo: 19320 Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558463 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Sample ID	LCS-13696	SampT	ype: LC	:S	Tes	tCode: E	PA Method	6010B: Soil	Metals				
Prep Date: 6/13/2014 Analysis Date: 6/17/2014 SeqNo: 558463 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Client ID	LCSS	Batch	n ID: 13	696	F	RunNo: 1	19320						
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Prep Date:	6/13/2014	Analysis D)ate: 6/	17/2014	S	SeqNo: 8	558463	Units: mg/K	(g				
	Analyte		Result	POI	SPK value	SPK Rof Val	%REC	I owl imit	Hight imit	%RPD	RPDI imit	Qual		
	Iron	<u></u>	25	1.0	25.00	0	99.6	80	120			 B		

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 greater than 2.
- RL Reporting Detection Limit

Page 9 of 9

Hall Environmen A TEL: 505-345-39 Website: www	tal Analysis Labor 4901 Hawkin Ibuquerque, NM 8 175 FAX: 505-345- hallenvironmental	alory 18 NE 7109 Sam 4107 I.com	ole Log-In Ch	eck List
Client Name: J & L LAMBFARM Work Order Numb	er. 1406550		RcptNo: 1	
Beceived by/date: KIM DIDI21	4			, ·
Longed By: Ashley Gallegos 6/12/2014 9:00:00 A	I M	FF.	• · ·	
Completed By: Ashley Gallegos 6/12/2014 9:51:54 A	M	AT		
Reviewed By:		<u> </u>		
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?	FedEx			
Log In				
4. Was an attempt made to cool the samples?	Yee V		NA	
	100 ··· 7.1	110 1.12		
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 🖌 I	f of program.	
			bottles checked	,
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗸	No . :	tor pH: (<2 or >	12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🖌	No	Adjusted?	
4, 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:	
		یر بر		
pecial 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: Client Instructions:				
17. Additional remarks:	······	···· · · · · · · · · · · · · · · · · ·		
19. Cooler Information	- 3			
Cooler No Temp ℃ Condition Seal Intact Seal No	Seal Date	Signed Bv		
1 4.8 Good Yes				
Page 1 of 1				

·

Client:	Chain	ot-Cu	istody	Record	rum r ⊈ s	tandard							F A	IA N	LL AL	EI YS	NV SIS	'IR 5 L	lo Ae	N	1E R/	NT NTC	AL DR'	Y
<u>J</u> +	LL	andfa	+w~		Proje	ect Name	Cell 2 Vacase	-3 ZON	e repet				,	www	v.hał	lenv	ironr	nent	al.co	m				
Mailing	Address	: •		·			545	mete	علة		490	01 H	awki	ns N	1E -	Alb	uque	erqu	ə, Nľ	M 87	109			
PO	BOX	3510	Hobbs A	Im 88241	Proje	ect #:	4	·			Те	I. 50	5-34	5-39	975	F	ax	505-	345-	4107	7			
Phone	#: 51	5-6	31- 57	65											A	naly	sis .	Req	uest					
email	or Fax#:	1 Not	96970	adicom	Proje	ect Mana	iger:			,	<u>F</u>	В Ю					O₄)							ļ
QA/QC	Package:	-					D . —			802	as o	N.			ŝ		04'S	ю С						
Z Sta	ndard		Level 4	(Full Validation)	3	uday '	Kober 5			3's (9	R S			SIS		² ,P(2 2 2						
	litation				Sam	pler:				TM	百		<u>-</u>	<u>=</u>	270		N,	808						Î
					Onlo		Z Yes			+ ш	т ш	Ж К	418	20	9 8	sl	° No	es /		Q Q	k			د د
Date	Time	Matrix	Sampl	e Request ID	Со Тур	ntainer e and #	Preservative Type	0 14	EALENDER DUSSO	BTEX+ MTB	BTEX + MTB	TPH 8015B (TPH)(Method	EDB (Method	PAH's (8310	RCRA 8 Meta	Anions (FC)	8081 Pesticid	8260B (VOA)	8270 (Semi-V	Melals			Air Bubbles ()
6/10/14	0755	spil	Cell	Select #1	4	2	ice		-001	Y			K				×				1	X	2	\mathbf{T}
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Date:	Time:	Relinquish	ed by: ed by:		Recei	ved by:	<u>cc</u> <u></u>	14 Date	e Time ONCO - e Time	Ren A	narks	s: 30	cd	<u> ۲</u>	Cu	⊾ F	-e	₽ł	- N	าง	ŧĘ	Sei	Aq 2	2~

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 23, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Repeats 5 yr Metals Cell 3.

OrderNo.: 1406551

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/12/2014 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 <u>www.hallenvironmental.com</u> 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,

John Collevell

John Caldwell Supervisor 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1406551

Date Reported: 6/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L LandfarmProject:Vadose Zone Repeats 5 yr Metals Cell 3Lab ID:1406551-001Matrix: SOIL

Client Sample ID: Cell #3 Random Select #1 Collection Date: 6/11/2014 6:58:00 AM Received Date: 6/12/2014 9:00:00 AM

Апајуses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.049		mg/Kg	1	6/16/2014 3:29:16 PM	13666
Toluene	ND	0.049		mg/Kg	1	6/16/2014 3:29:16 PM	13666
Ethylbenzene	ND	0.049		mg/Kg	1	6/16/2014 3:29:16 PM	13666
Xylenes, Total	ND	0.098		mg/Kg	1	6/16/2014 3:29:16 PM	13666
Surr: 4-Bromofluorobenzene	97.9	80-120		%REC	· 1	6/16/2014 3:29:16 PM	13666
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	110	30		mg/Kg	20	6/13/2014 2:58:27 PM	13690
EPA METHOD 7471: MERCURY						Analyst	: MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 2:18:27 PM	13710
EPA METHOD 6010B: SOIL METALS						Analyst	: ELS
Arsenic	ND	2:5		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Barium	76	0.098		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Cadmium	ND	0.098		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Chromium	4.5	0.29		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Copper	0.40	0.29		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Iron	3700	20	в	mg/Kg	20	6/17/2014 2:46:11 PM	13696
Lead	0.42	0.25		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Manganese	23	0.098		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Selenium	ND	2.5		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Silver	ND	0.25		mg/Kg	1	6/17/2014 2:43:31 PM	13696
Zinc	7.3	2.5		mg/Kg	1	6/17/2014 2:43:31 PM	13696
EPA METHOD 418.1: TPH		· .				Analys	: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

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

Qualifiers:		Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank		
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis exceeded			
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 9		
	0	RSD is greater than RSDlimit	· P	Sample pH greater than 2.	ruge rory		
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit			
	S	Spike Recovery outside accepted recovery limits					

CLIENT: J & L Landfarm Project: Vadose Zone Repeats 5 yr Me	etals Cell 3		Client Sample ID: Cell #3 Random Select #2 Collection Date: 6/11/2014 7:17:00 AM								
Lab ID: 1406551-002	Matrix:	SOIL	Received I	2/2014 9:00:00 AM							
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch					
EPA METHOD 8021B: VOLATILES					Analyst	NSB					
Benzene	ND	0.049	mg/Kg	1	6/16/2014 3:57:55 PM	13666					
Toluene	ND	0.049	mg/Kg	1	6/16/2014 3:57:55 PM	13666					
Ethylbenzene	ND	0.049	mg/Kg	1	6/16/2014 3:57:55 PM	13666					
Xylenes, Total	ND	0.097	mg/Kg	1	6/16/2014 3:57:55 PM	13666					
Surr: 4-Bromofluorobenzene	99.1	80-120	%REC	1	6/16/2014 3:57:55 PM	13666					
EPA METHOD 300.0: ANIONS					Analyst	JRR					
Chloride	280	30	mg/Kg	20	6/13/2014 3:10:52 PM	13690					
EPA METHOD 7471: MERCURY					Analyst:	MMD					
Mercury	ND	0.032	mg/Kg	1	6/16/2014 2:20:11 PM	13710					
EPA METHOD 6010B: SOIL METALS					Analyst:	ELS					
Arsenic	3.5	2.5	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Barium	100	0.099	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Cadmium	ND	0.099	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Chromium	3.6	0.30	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Copper	1.1	0.30	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Iron	3100	20	B mg/Kg	20	6/17/2014 2:48:55 PM	13696					
Lead	0.33	0.25	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Manganese	49	0.099	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Selenium	ND	2.5	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Silver	ND	0.25	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
Zinc	6.6	2.5	mg/Kg	1	6/17/2014 2:47:32 PM	13696					
EPA METHOD 418.1: TPH					Analyst	JME					
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	6/13/2014 12:00:00 PM	13667					

Hall Environmental Analysis Laboratory, Inc.

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Metho	d Blank
	Е	Value above quantitation range	H	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 0
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	r age 2 01 9
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	·		

Analytical Report Lab Order 1406551

Date Reported: 6/23/2014

Analytical Report Lab Order 1406551 Date Reported: 6/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Vadose Zone Repeats 5 yr Metals Cell 3 **Project:** 1406551-003 Lab ID: Matrix: SOIL Client Sample ID: Cell #3 Random Select #3 Collection Date: 6/11/2014 7:35:00 AM Received Date: 6/12/2014 9:00:00 AM

Analyses	Result	RL O	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.048		mg/Kg	1	6/16/2014 4:26:32 PM	13666
Toluene	ND	0.048		mg/Kg	1	6/16/2014 4:26:32 PM	13666
Ethylbenzene	ND	0.048		mg/Kg	1	6/16/2014 4:26:32 PM	13666
Xylenes, Total	ND	0.096		mg/Kg	1	6/16/2014 4:26:32 PM	13666
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/16/2014 4:26:32 PM	13666
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	290	30		mg/Kg	20	6/13/2014 3:23:17 PM	13690
EPA METHOD 7471: MERCURY		,				Analyst	: MMD
Mercury	ND	0.032		mg/Kg	1	6/16/2014 2:21:56 PM	13710
EPA METHOD 6010B: SOIL METALS						Analyst	ELS
Arsenic	ND	2.5		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Barium	83	0.10		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Cadmium	ND	0.10		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Chromium	5.2	0.30		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Copper	0.48	0.30		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Iron	5300	51	в	mg/Kg	50	6/17/2014 2:51:38 PM	13696
Lead	ND	0.25		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Manganese	44	0.10		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Selenium	ND	2.5		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Silver	ND	0.25		mg/Kg	1	6/17/2014 2:50:15 PM	13696
Zinc	9.7	2.5		mg/Kg	1	6/17/2014 2:50:15 PM	13696
EPA METHOD 418.1: TPH						Analyst	: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	6/13/2014 12:00:00 PM	13667

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

- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 3 of 9

					Lab Order 1406551							
Hall Environmental Analysi	s Laborat	tory, Inc.			Date Reported: 6/23/2014							
CLIENT: J & L Landfarm			Client Sample	e ID: Ce	II #3 Random Select #4	4						
Project: Vadose Zone Repeats 5 vr Met	tals Cell 3		Collection I	Date: 6/1	1/2014 8·00·00 AM							
	Mataina (D		0/2014 0.00.00 AM							
Lab ID: 1406551-004	Matrix:			Date: 6/1	2/2014 9:00:00 AM							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch						
EPA METHOD 8021B: VOLATILES					Analyst	: NSB						
Benzene	ND	0.048	mg/Kg	1	6/16/2014 4:55:14 PM	13666						
Toluene	ND .	0.048	mg/Kg	. 1	6/16/2014 4:55:14 PM	13666						
Ethylbenzene	ND	0.048	mg/Kg	. 1	6/16/2014 4:55:14 PM	13666						
Xylenes, Total	ND	0.097	mg/Kg	. 1	6/16/2014 4:55:14 PM	13666						
Surr: 4-Bromofluorobenzene	98.7	80-120	%REC	1	6/16/2014 4:55:14 PM	13666						
EPA METHOD 300.0: ANIONS					Analyst	JRR						
Chloride	300	- 30	mg/Kg	20	6/13/2014 3:35:42 PM	13690						
EPA METHOD 7471: MERCURY					Analyst	MMD						
Mercury	ND	0.032	mg/Kg	1	6/16/2014 2:23:42 PM	13710						
EPA METHOD 6010B: SOIL METALS					Analyst	ELS						
Arsenic	ND	2.5	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Barium	76	0.099	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Cadmium	ND	0.099	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Chromium	9.3	0.30	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Copper	0.74	0.30	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Iron	11000	50	B mg/Kg	50	6/17/2014 2:55:45 PM	13696						
Lead	ND	0.25	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Manganese	49	0.099	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Selenium	ND	2.5	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Silver	ND	0.25	mg/Kg	1	6/17/2014 2:52:59 PM	13696						
Zinc	19	2.5	mg/Kg	<u> </u>	6/17/2014 2:52:59 PM	13696						
EPA METHOD 418.1: TPH					Analyst	JME						
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	6/13/2014 12:00:00 PM	13667						

Analytical Report

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.		B	Analyte detected in the associated Metho	od Blank
·	Е	Value above quantitation range	:, .	\mathbf{H}	Holding times for preparation or analysis	s exceeded
	J.	Analyte detected below quantitation limits	•	ND	Not Detected at the Reporting Limit	Page 1 of 0
	0	RSD is greater than RSDlimit		Р	Sample pH greater than 2.	r age 4 01 3
	R	RPD outside accepted recovery limits	,	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			ι τ	

WO#: 1406551

23-Jun-14

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J & L Landfarm Vadose Zone Repeats 5 yr Metals Cell 3														
Sample ID MB	 3-13690	SampType	e: MI	 3L.K 690	 Tes	tCode: Ef	PA Method	300.0: Anion	S						
Prep Date: 6/	e: 6/13/2014 Analysis Date: 6/13/2014 SeqNo: 557619 Un								Units: mg/Kg						
Analyte		Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Chloride		ND	1.5												
Sample ID LC	S-13690	SampType	e: LC	 s	Tes	tCode: El	PA Method	300.0: Anion	IS						
Client ID: LC	SS	Batch ID	: 13	690	F	RunNo: 1	9289								
Prep Date: 6/	/13/2014	Analysis Date	: 6/	13/2014	5	eqNo: 5	57620	Units: mg/H	۲g						
Analyte		Result F	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Chloride		14	1.5	15.00	0	95.0	90	110			-				

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Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S 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
- Р Sample pH greater than 2.
- **Reporting Detection Limit** RL

Page 5 of 9

WO#:	1406551

23-Jun-14

Hall	Enviro	nmental	Analysis	Laboratory	, Inc.
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Client: J&L	Landfarm			
Project: Vados	e Zone Repeats 5 yr Metals Cel	11.3	-	•
Sample ID MB-13667	SampType: MBLK	TestCode: EPA Method	418.1: TPH	
Client ID: PBS	Batch ID: 13667	RunNo: 19239		
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556588	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	ND 20			
Sample ID LCS-13667	SampType: LCS	TestCode: EPA Method	418.1: TPH	
Client ID: LCSS	Batch ID: 13667	RunNo: 19239	,	
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556589	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	110 20 100.0	0 105 80	120	· · · · · · · · · · · · · · · · · · ·
Sample ID LCSD-13667	SampType: LCSD	TestCode: EPA Method	418.1: TPH	
Client ID: LCSS02	Batch ID: 13667	RunNo: 19239		, · · ·
Prep Date: 6/12/2014	Analysis Date: 6/13/2014	SeqNo: 556590	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	100 20 100.0	0 104 80	120 1.32	20

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
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded

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- ND Not Detected at the Reporting Limit
 - Р Sample pH greater than 2.

Page 6 of 9

RL Reporting Detection Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: J&L	Landfarm									
Project: Vados	e Zone Repe	ats 5 yr	Metals Cel							
Sample ID MB-13666	Samp	Type: MI	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: 13	666	F	RunNo: 1	9306				
Prep Date: 6/12/2014	Analysis [Date: 6/	16/2014	5	SeqNo: 558130 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		100	80	120			
Sample ID LCS-13666	Samp	Type: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: 13	666	F	RunNo: 1	9306				
Prep Date: 6/12/2014	Analysis [Date: 6/	16/2014	5	SeqNo: 5	58131	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	80	120	_		
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0 .	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	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 greater than 2.
- RL Reporting Detection Limit

Page 7 of 9

23-Jun-14

1406551

WO#:

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406551

23-Jun-14

Sample ID MB-13710	SampType: MBLK	TestCode: EPA Method 7471: Mercury
Client ID: PBS	Batch ID: 13710	RunNo: 19298
Prep Date: 6/16/2014	Analysis Date: 6/16/201	4 SeqNo: 557851 Units: mg/Kg
Analyte	Result PQL SPK	value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Mercury	ND 0.033	· · · · · · · · · · · · · · · · · · ·
·····;	118 0.000	
Sample ID LCS-13710	SampType: LCS	TestCode: EPA Method 7471: Mercury
Sample ID LCS-13710 Client ID: LCSS	SampType: LCS Batch ID: 13710	TestCode: EPA Method 7471: Mercury RunNo: 19298
Sample ID LCS-13710 Client ID: LCSS Prep Date: 6/16/2014	SampType: LCS Batch ID: 13710 Analysis Date: 6/16/201	TestCode: EPA Method 7471: Mercury RunNo: 19298 I4 SeqNo: 557852 Units: mg/Kg
Sample ID LCS-13710 Client ID: LCSS Prep Date: 6/16/2014 Analyte	SampType: LCS Batch ID: 13710 Analysis Date: 6/16/201 Result PQL SPK	TestCode: EPA Method 7471: Mercury RunNo: 19298 I4 SeqNo: 557852 Units: mg/Kg value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

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
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Page 8 of 9

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406551

23-Jun-14

Client: Project:	J & L Vados	Landfarm se Zone Repe	ats 5 yr i	Metals Cell	3						
Sample ID	MB-13696	Samp	ype: ME	BLK	Tes	tCode: E	PA Method	6010B: Soil 1	Metals		
Client ID:	PBS	Batc	h ID: 13	696	F	RunNo: 1	9303				
Prep Date:	6/13/2014	Analysis [Date: 6/	14/2014	5	SegNo: 5	57921	Units: mg/H	(g		
Analyta		Popult		SDK value	SPK Pof Val	%REC	Low imit	Highl imit	~ % 8 6 0	RPDI imit	Qual
Arsenic			25		OF IN INCLIVAL	701120		- ingriculture	70131110		Quai
Barium		ND	0.10								
Cadmium		ND	0.10								
Chromium		ND	0.30								
Conner		ND	0.30								
Lead		ND	0.25								
Manganese		ND	0.10								
Selenium		ND	2.5							-	
Silver		ND	0.25								
Zinc		ND	2.5								
Sample ID	LCS-13696	Samp	VDe: LC	s	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	LCSS	Batc	h ID: 13	696	F	RunNo: 1					
Prep Date:	6/13/2014	Analysis I	Analysis Date: 6/14/2014			SeqNo: 5	57922	Units: mg/M	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		24	2.5	25.00	0	95.3	80	120			
Barium		24	0.10	25.00	0	95.1	80	120			
Cadmium		24	0.10	25.00	0	94.3	80	120			
Chromium		24	0.30	25.00	0	94.9	80	120			
Copper	,	25	0.30	25.00	0	101	80	120			
Lead		23	0.25	25.00	0	90.5	80	120			
Manganese		24	0.10	25.00	0	95.1	80	120			
Selenium		23	2.5	25.00	0	91.2	80	120			
Silver		4.9	0.25	5.000	0	97.1	80	120			
Zinc		23	2.5	25.00	0	93.1	80	120			
Sample ID	MB-13696	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	PBS	Batc	h ID: 13	696	F	RunNo: 1	9320				
Prep Date:	6/13/2014	Analysis [Date: 6/	17/2014	\$	SeqNo: 5	58462	Units: mg/M	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		1.5	1.0								
Sample ID	LCS-13696	Samp	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	LCSS	Batc	h ID: 13	696	F	RunNo: 1	9320				
Prep Date:	6/13/2014	Analysis [Date: 6/	17/2014	\$	SeqNo: 5	58463	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		25	1.0	25.00	0	99.6	80	120			В

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 greater than 2.
- RL Reporting Detection Limit

Page 9 of 9

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			· ·	Hall E TEL: : Wei	nvironmental Alb 505-345-397 bsite: งหายาง.ht	l Analysi 4901 uquerqu 5 FAX: 5 allenviro	s Labora Hawkin e, NM 8 05-345- nmental	atory ns NE 7109 4107 I.com	Sam	ple Log-In	Checl	< List	-
Clie	ent Name:	J&LLAND	RARM	Work Or	der Number	: 1406	551			Rcpth	lo: 1		
Rec	ceived by/date:	X	M	OCe	12/1	¢	·	···· ··· · ·	• -	,	-	• ••••	
Log	ged By:	Ashley Gal	legos	6/12/2014	9:00:00 AM	l i r		Æ	F				
Cor	mpleted By:	Ashley Gal	legos	6/12/2014	9:53:07 AM	·		A	z				
Řev	viewed By:	AR		paliel	p.1				V				
Ċha	ain of Cust	ody							,		•		
1.	Custody seals	s intact on sa	mple bottles?	•	,	Yes	17	No		Not Present	/		
2.	Is Chain of Cu	ustody compl	lete?			Yes		No		Not Present			
3.	How was the	sample deliv	ered?			FedE	x		,				
						;	•						
<u>LO</u>	<u>g in</u>					· ,	1.1.1		· .				
4.	Was an atten	npt made to	cool the samp	les?		Yes	V	NC) k k	NA			
5.	Were all sam	ples received	d at a tempera	ture of >0° C to	⊙6.0°C	Yes	V	No	;	NA .			
6.	Sample(s) in	proper conta	ainer(s)?	x		Yes	V	N)				
7.	Sufficient sam	nple volume :	for Indicated te	est(s)?	,	Yes	1	Na)	,			
8.	Are samples ((except VOA	and ONG) pro	operly preserve	42	Yes	V ,	No					
·9.	Was preserva	ative added to	o bottles?	;		Yes	11	No		NA			
άn	VOA viale ha	ua zara haad	000002			Vor	•••	No	:	No VOA Vials	,		•
11	Ware any sar	mole contain	ers received h	roken?	т., к к	Yes	· ·	. No					۰.
4.1		inplo contain		,					-	# of preserved			•
12	.Does paperwi	ork match bo	ottle labels?	·		Yes		No		for pH:			. :
40	(Note discrep:	ancies on ch	ain of custody) n of Curtodu?	:	Voo		No		Adjusted?	2 or >12 L	iniess noted)
14	Is it clear what	t analyses w	vere requested	n of Custody r		Yes		No					:
15	Were all holdi	ing times abl	le to be met?	-		Yes	Y	No	13	Checked b	y:		
	(If no, notify c	sustomer for a	authorization.)					,		i			
	oial Hoadi	ing lif on	licobie)		×	-				,			
16	Was client to	nig (n app	iscrepancies v	with this order?		Yes	. }	No	: :	NA 1	,		
	:					100							
i	By Who	Morned:			Uate:		a :'''	Phone : '	Fav				
	Regardi	ing:			V IG.	CIVIC	··· ;!		ax		P		
	Client Ir	- nstructions:								an a	r	-	
17	. Additional rer	marks:				- · · ·		· . ·		· · · ····			
18	Cooler Infor	mation								:			
10.	Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Da	ite	Signed	By				
	1	4.8	Good	Yes									
	Done 1 of	• •	[.]	at in ender	.		·	an rur		•			
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Client:	Chain-of-Custody Record			cord	Turn-Arour	nd Time: rd					HA An	LL Al	EN	VI	RO	BO	ME RA	NT		¥
J+	L ha	udber	m		Project Na	ne: e zone i	repeats	ן ∎			ww	w.hal	llenviro	onmer	ntal.c	om				-
Mailing	Address	U			545	metals	cell 3		4901 Hawkins NE - Albuquerque, NM 87109											
Po Phone #	Box 3 # 57	56 H	0005, Nm 88	241	Project #:				Te	1. 505-:	345-3	975 A	Fa nalys	x 505 is Re	5-345 ques	-410 t	7			
email or	Fax#:	ilmb	697 00 90	licom	Project Ma	nager:		<u>_</u>	ly)	Ô				(4)				Т		Τ
QA/QC F	Package: dard	,	Level 4 (Full)	Validation)				's (802	(Gas o	NI WI		SIMS)		2 PCB's						
Accredi	tation AP	⊡ Othe	н		Sampler: On Ice	zives -	□ No	+ TMB	HdT +	RO / DI	504.1)	r 8270 (5	03,NU2 s / 808;		(AC	×.			or N)
	(Type)				Sample Te	mperature: 4	8		置	9 (C	po	10 0	etal		R	N-I	\$			l≻
Date	Time	Matrix	Sample Re	quest ID	Containe Type and	r Preservative # Type	HEARNOW 14006551	BTEX M	BTEX + M	TPH 8015	EDB (Meth	PAH's (83	RCRA 8 M	8081 Pesti	8260B (VC	3270 (Serr	Metal			Air Ruhhla
eluly	0658	spil	random sela	at + 1	402914 2	ice	-001	X		Ĭ				K_			ì	Ā	ZF.	牧
	0717			#2			-002	X		<u> </u> ×	<u> </u>			<u>:</u> [X	Y	42
4_	0735			*3			-003	×		<u> </u>	<u> </u>			<u>c </u>				2	Ľ	<u>}</u>
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Date:	Time: 1130 Time:	Relinquish Relinquish	ed by: 5 <i>Jun</i> ed by:		Received by:	t a	1 Date Time (172/14) 8:980 Date Time	Ren A	narks	a Co	1 6	- C	u R	e P	×6 1	л ИЮ	⊥] Hq	Se	Aq ·	 Zn

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 30, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Metals 5yr Cell 13

OrderNo.: 1406993

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/20/2014 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 <u>www.hallenvironmental.com</u> 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

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406993 Date Reported: 6/30/2014

CLIENT: J & L Landfarm Vadose Zone Metals 5yr Cell 13 **Project:**

1406993-001

Lab ID:

Client Sample ID: Cell #13 #1 Collection Date: 6/19/2014 5:31:00 AM

Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	mg/Kg	1	6/24/2014 1:52:41 PM	13842
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	5.0	mg/Kg	2	6/24/2014 10:59:04 AM	13841
Barium	280	0.20	mg/Kg	2	6/24/2014 10:59:04 AM	13841
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 10:54:55 AM	13841
Chromium	1.9	0.30	mg/Kg	1	6/24/2014 10:54:55 AM	13841
Copper	3.3	0.30	mg/Kg	1	6/24/2014 10:54:55 AM	13841
Iron	2000	10	mg/Kg	10	6/25/2014 8:25:32 AM	13841
Lead	0.35	0.25	mg/Kg	1	6/24/2014 10:54:55 AM	13841
Manganese	19	0.10	mg/Kg	1	6/24/2014 10:54:55 AM	13841
Selenium	ND	2.5	mg/Kg	1	6/24/2014 10:54:55 AM	13841
Silver	ND	0.25	mg/Kg	1	6/24/2014 10:54:55 AM	13841
Zinc	5.6	2.5	mg/Kg	1	6/24/2014 10:54:55 AM	13841

Matrix: SOIL

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

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Ona	lifiers:
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- Value exceeds Maximum Contaminant Level. Е 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 S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**
- Page 1 of 7

					Analytical Report	
		. . .			Lab Order 1406993	
Hall Environmental Analysi	is Laborat	ory, Inc.	·	<u> </u>	Date Reported: 6/30/20	14
CLIENT: J & L Landfarm			Client Sampl	e ID: Ce	II #13 #2	
Project: Vadose Zone Metals 5yr Cell	13		Collection I	Date: 6/1	9/2014 5:43:00 AM	
Lab ID: 1406993-002	Matrix: S	SOIL	Received I	Date: 6/2	0/2014 8:30:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.033	mg/Kg	1	6/24/2014 1:58:04 PM	13842
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	5.0	mg/Kg	2	6/24/2014 11:04:32 AM	13841
Barium	230	0.10	mg/Kg	1	6/24/2014 11:03:10 AM	13841
Cadmium	ND	['] 0.10	mg/Kg	1	6/24/2014 11:03:10 AM	13841
Chromium	1.7	0.30	mg/Kg	1	6/24/2014 11:03:10 AM	13841
Соррег	1.5	0.30	mg/Kg	1	6/24/2014 11:03:10 AM	13841
Iron	1600	10	mg/Kg	10	6/25/2014 8:26:53 AM	13841
Lead	ND	0.25	mg/Kg	1	6/24/2014 11:03:10 AM	13841
Manganese	18	0.10	mg/Kg	1	6/24/2014 11:03:10 AM	13841
Selenium	ND	2.5	mg/Kg	1	6/24/2014 11:03:10 AM	13841
Silver	ND	0.25	mg/Kg	1	6/24/2014 11:03:10 AM	13841

2.5

mg/Kg

1

6/24/2014 11:03:10 AM 13841

5.4

Zinc

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	· B	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 7
	0	RSD is greater than RSDlimit	· P	Sample pH greater than 2.	rage 2 01 7
	R	RPD outside accepted recovery limits	, RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	,		

Analytical Report Lab Order 1406993 Date Reported: 6/30/2014

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: Cell #13 #3 CLIENT: J & L Landfarm Collection Date: 6/19/2014 5:56:00 AM Vadose Zone Metals 5yr Cell 13 **Project:** 1406993-003 Matrix: SOIL Received Date: 6/20/2014 8:30:00 AM Lab ID: . . TT ... *4

Analyses	Result		al Units	- Ur	Date Analyzed	Daten
EPA METHOD 7471: MERCURY					Analyst:	MMD
Mercury	ND	0.033	mg/Kg	1	6/24/2014 1:59:52 PM	13842
EPA METHOD 6010B: SOIL METALS					Analyst:	ELS
Arsenic	ND	5.0	mg/Kg	2	6/24/2014 11:18:30 AM	13841
Barium	370	0.20	mg/Kg	2	6/24/2014 11:18:30 AM	13841
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 11:17:03 AM	13841
Chromium	1.4	0.30	mg/Kg	1	6/24/2014 11:17:03 AM	13841
Copper	0.85	0.30	mg/Kg	1	6/24/2014 11:17:03 AM	13841
Iron	1300	10	mg/Kg	10	6/25/2014 8:28:14 AM	13841
Lead	ND	0.25	mg/Kg	1	6/24/2014 11:17:03 AM	13841
Manganese	12	0.10	mg/Kg	1	6/24/2014 11:17:03 AM	13841
Selenium	ND	2.5	mg/Kg	- 1	6/24/2014 11:17:03 AM	13841
Silver	ND	0.25	mg/Kg	1	6/24/2014 11:17:03 AM	13841
Zinc	3.7	2.5	mg/Kg	1	6/24/2014 11:17:03 AM	13841

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В
	Е	Value above quantitation range	Н
	J.	Analyte detected below quantitation limits	ND
	0	RSD is greater than RSDlimit	Р

- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
 - Not Detected at the Reporting Limit
- Sample pH greater than 2.

- RL Reporting Detection Limit

Page 3 of 7

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406993 Date Reported: 6/30/2014

CLIENT: J & L LandfarmProject:Vadose Zone Metals 5yr Cell 13Lab ID:1406993-004Matrix: SOIL

Client Sample ID: Cell #13 #4 Collection Date: 6/19/2014 5:09:00 AM Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY	· · · · · · · · · · · · · · · · · · ·				Analyst	: MMD
Mercury	. ND	0.032	mg/Kg	1 -	6/24/2014 2:01:41 PM	13842
EPA METHOD 6010B: SOIL METALS		* <u>;</u> =		<u>1</u>	Analyst	ELS
Arsenic	ND	5.0	mg/Kg	. 2	6/24/2014 11:21:12 AM	13841
Barium	420	0.20	mg/Kg	2	6/24/2014 11:21:12 AM	13841
Cadmium	ND	0.10	mg/Kg	. 1	6/24/2014 11:19:49 AM	13841
Chromium	1.4	0.30	mg/Kg	1	6/24/2014 11:19:49 AM	13841
Copper	0.74	0.30	mg/Kg	1	6/24/2014 11:19:49 AM	13841
Iron	1200	10	mg/Kg	10	6/25/2014 8:29:36 AM	13841
Lead	ND	0.25	mg/Kg	. 1	6/24/2014 11:19:49 AM	13841
Manganese	11	0.10	mg/Kg	1	6/24/2014 11:19:49 AM	13841
Selenium	ND	2.5	mg/Kg	1	6/24/2014 11:19:49 AM	13841
Silver	ND	0.25	mg/Kg	1	6/24/2014 11:19:49 AM	13841
Zinc	3.9	2.5	mg/Kg	1	6/24/2014 11:19:49 AM	13841

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

	_		_				
Qualifiers:	*	Value exceeds Maximum Contaminant Level.		,	В	Analyte detected in the associated Metho	d Blank
	Е	Value above quantitation range	÷ '	•	Н	Holding times for preparation or analysis	exceeded
•	J	Analyte detected below quantitation limits		· ·	ND	Not Detected at the Reporting Limit	Page 1 of 7
	0	RSD is greater than RSDlimit	۰.		Р	Sample pH greater than 2.	1 age + 01 7
	R	RPD outside accepted recovery limits	· ·		RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits					

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406993

30-Jun-14

J & L Landfarm **Client: Project:** Vadose Zone Metals 5yr Cell 13 Sample ID MB-13842 SampType: MBLK TestCode: EPA Method 7471: Mercury RunNo: 19472 Client ID: PBS Batch ID: 13842 SeqNo: 563441 Prep Date: Analysis Date: 6/24/2014 Units: mg/Kg 6/23/2014 Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte PQL Qual ND 0.033 Mercury Sample ID LCS-13842 SampType: LCS TestCode: EPA Method 7471: Mercury Client ID: LCSS Batch ID: 13842 RunNo: 19472 SeqNo: 563444 Prep Date: 6/23/2014 Analysis Date: 6/24/2014 Units: mg/Kg RPDLimit PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Qual Analyte Result 0.16 0.033 80 0.1667 97.8 120 Mercury 0 Sample ID 1406993-001AMS SampType: MS TestCode: EPA Method 7471: Mercury Client ID: Cell #13 #1 Batch ID: 13842 RunNo: 19472 Prep Date: 6/23/2014 Analysis Date: 6/24/2014 SeqNo: 563453 Units: mg/Kg SPK value SPK Ref Val %REC %RPD RPDLimit Result PQL LowLimit HighLimit Qual Analyte 0.14 0.032 0.1598 0.005686 81.5 75 125 Mercury Sample ID 1406993-001AMSD SampType: MSD TestCode: EPA Method 7471: Mercury Client ID: Cell #13 #1 Batch ID: 13842 RunNo: 19472 Prep Date: SeqNo: 563454 Units: mg/Kg 6/23/2014 Analysis Date: 6/24/2014 %REC %RPD Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit RPDLimit Qual 0.14 0.033 0.1657 0.005686 83.8 75 6.27 Mercury 125 20

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 greater than 2.
- RL Reporting Detection Limit

Page 5 of 7

• ·

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406993

30-Jun-14

Client: J & L Landfarm

Project: Vadose Zone Metals 5yr Cell 13

Sample ID	MB-13841	SampType: MBLK TestCode: EPA Method 6010B: Soil Metals										
Client ID:	PBS	Batc	n ID: 13	841	· · F	RunNo: 1	9463					
Prep Date:	6/23/2014	Analysis D)ate: 6/	24/2014	5	SeqNo: 5	63064	Units: mg/K	(g	. .		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD_	RPDLimit	Qual	
Arsenic		ND	2.5									
Barium	• •	ND	0.10	•						*		
Cadmium		ND	0.10									
Chromium		ND	0.30									
Copper		ND	0.30	,		,						
Lead		ND	0.25									
Manganese		ND	0.10									
Selenium		ND	2.5		*							
Silver		. ND	0.25									
Zinc		ND	2.5				<u>. </u>					
Sample ID	LCS-13841	SampT	ype: LC	S	Tes	tCode: E	PA Method	6010B: Soil I	Metals			
Client ID:	LCSS	Batcl	n ID: 13	841	F	RunNo: 1						
Prep Date:	6/23/2014	Analysis E)ate: 6/	24/2014	5	SeqNo: 5	63065	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		23	2.5	25.00	0	90.7	80	120				
Barium		23	0.10	25.00	0	92.1	80	120				
Cadmium		23	0.10	25.00	0	92.3	80	· 120				
Chromium		23	0.30	25.00	0	` 91.7	80	120				
Copper		24	0.30	25.00	0	96.2	80	120				
Lead		22	0.25	25.00	0	89.3	80	120				
Manganese		23	0.10	25.00	. Ο	91.4	80	120				
Selenium		22	2.5	25.00	0	86.4	80	120				
Silver		4.8	0.25	5.000	0	95.2	80	120	-			
Zinc		22	2.5	25.00	0	89.3	80	120				
Sample ID	1406993-001AMS	SampT	ype: MS	;	Tes	tCode: El	PA Method	6010B: Soil I	Vetals			
Client ID:	Cell #13 #1	Batch	n ID: 13	841	F	RunNo: 1	9463					
Prep Date:	6/23/2014	Analysis D	ate: 6/	24/2014	5	SeqNo: 5	63090	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic		23	2.5	24.90	4.486	72.8	75	125			S	
Cadmium		18	0.10	24.90	- O	70.6	75	125			S	
Chromium		18	0.30	24.90	1.850	64.1	75	125			S	
Copper		20	0.30	24.90	3.348	65.6	75	125			S	
Lead		16	0.25	24.90	0.3537	61.4	75	125			S	
Manganese		35	0.10	24.90	19.02	65.0	75	125			S	
Selenium		13	2.5	24.90	0	53.5	75	125			S	
Silver		3.5	0.25	4.980	0	69.7	75	125			S	

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

S Spike Recovery outside accepted recovery limits B Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Р Sample pH greater than 2.

RL **Reporting Detection Limit** Page 6 of 7

WO#: 1406993

30-Jun-14

Hall Environmental Analysis Laboratory, Inc.

Client:	J & L Lar	ndfarm												
Project:	Vadose Z	one Metal	s 5yr C	ell 13										
Sample ID	1406993-001AMS	Sampī	ype: MS	 ;	Tes	tCode: El	PA Method	6010B: Soil	Metais					
Client ID:	Cell #13 #1	Batch	n ID: 13	841	F	RunNo: 1	9463							
Prep Date:	6/23/2014	Analysis D)ate: 6 /	24/2014	. 8	SeqNo: 5	63090	Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Zinc		21	2.5	24.90	5.589	61.9	75	125			s			
Sample ID	1406993-001AMSI) SampT	ype: MS	 SD	Tes	tCode: El	PA Method	6010B: Soil	Metals					
Client ID:	Cell #13 #1	Batch	Batch ID: 13841 RunNo: 19463											
Prep Date:	6/23/2014	Analysis D)ate: 6/	24/2014	S	SeqNo: 5	63091	Units: mg/k	٢g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Arsenic		22	2.5	24.60	4.486	69.6	75	125	4.51	20	S			
Cadmium		17	0.098	24.60	0	68.1	75	125	4.82	20	S			
Chromium		17	0.30	24.60	1.850	62.2	75	125	3.73	20	S			
Copper		19	0.30	24.60	3.348	62.8	75	125	4.61	20	S			
Lead		15	0.25	24.60	0.3537	58.3	75	125	6.16	20	S			
Manganese		36	0.098	24.60	19.02	69.3	75	125	2.39	20	S			
Selenium		12	2.5	24.60	0	49.9	75	125	8.20	20	S			
Silver		3.3	0.25	4.920	0	67.1	75	125	4.94	20	S			
Zinc		20	2.5	24.60	5.589	59.0	75	125	4.34	20	S			
Sample ID	MB-13841	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	6010B: Soil	Metals					
Client ID:	PBS	Batch	h ID: 13	841	F	RunNo: 1	9483							
Prep Date:	6/23/2014	Analysis D	Date: 6/	25/2014	S	SeqNo: 5	63853	Units: mg/k	(g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Iron		1.5	1.0											
Sample ID	LCS-13841	SampT	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil	Metals					
Client ID:	LCSS	Batcl	h ID: 13	841	F	RunNo: 1	9483							
Prep Date:	6/23/2014	Analysis D)ate: 6/	25/2014	S	SeqNo: 5	63854	Units: mg/ł	۲g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Iron		25	1.0	25.00	0	98.4	80	120			В			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Value above quantitation range Е

Analyte detected below quantitation limits J

0 RSD is greater than RSDlimit

R RPD outside accepted recovery limits

- S 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
- Р Sample pH greater than 2.

Reporting Detection Limit RL

Page 7 of 7

HALL Hall Environmental ANALYSIS LABORATORY TEL: 5 Web	nvironmental Analysis Labor 4901 Hawkit Albuquerque, NM & 505-345-3975 FAX: 505-345 isite: www.hallenvironmenta	ratory ns NE 87105 Samj 4107 1.com	ple Log-In Cl	neck List
Client Name: J & L LANDFARM Work Ord	der Number: 1406993		RcptNo:	1
Received by/date: MG Olo 20 Logged By: Michelle Garcia 6/20/2014 & Completed By: Michelle Garcia 6/20/2014 &	3:30:00 AM	Minute Con	ue)	
Reviewed By: Malan 0162	3/14	- pour que	······································	
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?	FedEx	· · ·	<u>:</u>	
Log In	-			
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗌		
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 VQA Vials 🗹	
11. Were any sample containers received broken?	Yes 🗆	No 🗹 🛛	ft of preserved	
12. Does paperwork match bottle labels?	Yes 🗹	No 🗌	bottles checked for pH:	12 unloss seted
(Note discrepancies on chain of custody) 13. Are matrices correctly identified on Chain of Custody?	Vec V	No 🗔	Adjusted?	
14 Is it clear what analyses were requested?	Yes 🗹		<u></u>	,
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗔 🛛	Checked by:	
		,		
Special Handling (IT applicable) 16 Was client notified of all discremancies with this order?	Vec	No 🗆		
Person Notified:	Data			
By Whom:	Via: eMail	Phone 🗍 Fax		
Regarding:				
Client Instructions:	(a) a software set as a set of the set of		 A second sec second second sec	
17. Additional remarks:	· ·	÷		
18. <u>Cooler Information</u>	•			
Cooler No Temp °C Condition Seal Intact S 1 4.4 Good Yes Intact S	eal No Seal Date	Signed By		
Page 1 of 1	<u></u>	<u> </u>		
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C	hain	of-Cu	istody Rec	ord	Turn	-Around	Tíme:		1		■,		н	AL		NV	/TR	20	NF	ме	N7	AL	_
Client:					Standard Rush						翻編		A	NA	LY	519	5 L	.AE	30	R/	17(DR	Y
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Date	Time	Matrix	Sample Rec	uest ID		ntainer	Preservative	HEAL No		+ ×	÷) 8	<u>Š</u>	۳) (W	8) suc	1 Pe	OB B	0 (S	5		ļ	ang
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Date	Time:	Relinquis	leel by:		Recei	ved by:		Date Tim	e	Ren	nark	1 s:					L	<u> </u>	<u>ـــــ</u>	L		L	
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

June 30, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Metals 5yr Cell #18

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

OrderNo.: 1406994

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/20/2014 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 <u>www.hallenvironmental.com</u> 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

Date Reported: 6/30/2014

Hall Environmental Analysis Laboratory, Inc.

Project:

Lab ID:

Client Sample ID: Cell #18 #1 CLIENT: J & L Landfarm Vadose Zone Metals 5yr Cell #18 Collection Date: 6/19/2014 9:10:00 AM Received Date: 6/20/2014 8:30:00 AM 1406994-001 Matrix: SOIL

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	: MMD
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:07:13 PM	13842
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Barium	45	0.10	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Chromium	3.3	0.30	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Copper	1.9	0.30	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Iron	3900	20	mg/Kg	20	6/25/2014 8:30:55 AM	13841
Lead	1.1	0.25	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Manganese	51	0.10	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Selenium	ND	2.5	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Silver	ND	0.25	mg/Kg	1	6/24/2014 11:22:32 AM	13841
Zinc	8.9	2.5	mg/Kg	1	6/24/2014 11:22:32 AM	13841

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406994 Date Reported: 6/30/2014

CLIENT: J & L Landfarm

Project: Vadose Zone Metals 5yr Cell #18

Lab ID: 1406994-002 Matrix: SOIL

Client Sample ID: Cell #18 #2 Collection Date: 6/19/2014 9:19:00 AM Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY				· .	Analyst	MMD
Mercury	¹⁷ ND	0.032	mg/Kg	1	6/24/2014 2:09:02 PM	13842
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	2.5	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Barium	27	0.10	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Cadmium	ND	· 0.10	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Chromium	3.0	0.30	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Copper	1.6	0.30	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Iron	3300	20	mg/Kg	20	6/25/2014 8:32:18 AM	13841
Lead	1.2	0.25	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Manganese	39	0.10	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Selenium	ND	2.5	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Silver	ND	0.25	mg/Kg	1	6/24/2014 11:25:11 AM	13841
Zinc	13	2.5	mg/Kg	1	6/24/2014 11:25:11 AM	13841

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method B	Jank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exe	ceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Lab Order 1406994

Date Reported: 6/30/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm		C	lient Sampl	e ID: Ce	11 #18 #3					
Project: Vadose Zone Metals 5yr Ce	ll #18		Collection 3	Date: 6/1	9/2014 9:33:00 AM					
Lab ID: 1406994-003	Matrix: S	SOIL	Received Date: 6/20/2014 8:30:00 AN							
Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch				
EPA METHOD 7471: MERCURY					Analyst:	MMD				
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:10:53 PM	13842				
EPA METHOD 6010B: SOIL METALS					Analyst:	ELS				
Arsenic	ND	2.5	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Barium	32	0.10	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Chromium	3.7	0.31	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Copper	1.6	0.31	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Iron	4200	20	mg/Kg	20	6/25/2014 8:33:38 AM	13841				
Lead	0.99	- 0.25	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Manganese	43	0.10	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Selenium	ND	2.5	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Silver	ND	0.25	mg/Kg	1	6/24/2014 11:27:56 AM	13841				
Zinc	9.9	2.5	mg/Kg	1	6/24/2014 11:27:56 AM	13841				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 uge 5 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406994

Date Reported: 6/30/2014

CLIENT: J & L LandfarmProject:Vadose Zone Metals 5yr Cell #18Lab ID:1406994-004Matrix: SOIL

Client Sample ID: Cell #18 #4 Collection Date: 6/19/2014 9:55:00 AM

Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	Result RL Qual Units		DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:12:44 PM	13842
EPA METHOD 6010B: SOIL METALS				• • .	Analyst	ELS
Arsenic	ND	2.6	mg/Kg	1	6/24/2014 11:35:58 AM	13841
Barium	51	0.10	mg/Kg	1	6/24/2014 11:35:58 AM	13841
Cadmium	ND	0.10	mg/Kg	· ` 1	6/24/2014 11:35:58 AM	13841
Chromium	3.8	0.31	mg/Kg	1	6/24/2014 11:35:58 AM	13841
Copper	1.9	0.31	mg/Kg	1	6/24/2014 11:35:58 AM	13841
Iron	4100	21	mg/Kg	20	6/25/2014 8:34:57 AM	13841
Lead	0.62	0.26	mg/Kg	1	6/24/2014 11:35:58 AM	13841
Manganese	41	0.10	mg/Kg	1	6/24/2014 11:35:58 AM	13841
Selenium	ND	2.6	mg/Kg	1	6/24/2014 11:35:58 AM	13841
Silver	ND	0.26	mg/Kg	1	6/24/2014 11:35:58 AM	13841
Zinc	9.8	2.6	mg/Kg	1	6/24/2014 11:35:58 AM	13841

Qualifiers:	*	Value exceeds Maximum Contaminant Level.			В	Analyte detected in the associated Method	Blank
	Е	Value above quantitation range	·	.'	Н	Holding times for preparation or analysis	exceeded
	l	Analyte detected below quantitation limits	12		ND	Not Detected at the Reporting Limit	Page 4 of 6
	0	RSD is greater than RSDlimit	· -		Р	Sample pH greater than 2.	1 age 4 01 0
	R	RPD outside accepted recovery limits	1945	٠.	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits					

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1406994

30-Jun-14

Client: J & L Landfarm

2

Project:	Vado	ose Zone Metal	ls 5yr C	ell #18											
Sample ID	MB-13842	Samp1	ype: MI	 BLK	Tes	tCode: El	PA Method	7471: Mercu							
Client ID:	PBS	Batch	h ID: 13	842	F	RunNo: 1	9472								
Prep Date:	6/23/2014	Analysis D	Dáte: 6/	24/2014	5	SeqNo: 5	63441	Units: mg/M	Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Mercury		ND	0.033												
Sample ID	LCS-13842	SampT	ype: LC	:s	Tes	tCode: El	PA Method	7471: Mercu	ry						
Client ID:	LCSS	Batcl	h ID: 13	842	F	RunNo: 1	9472								
Prep Date:	6/23/2014	Analysis D	Date: 6/	24/2014	S	SeqNo: 5	63444	Units: mg/#	(g						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Mercury		0.16	0.033	0.1667	0	97.8	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 greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

-

orting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: J & L Landfarm

Project: Vadose Zone Metals 5yr Cell #18

Sample ID	MB-13841	SampT	SampType: MBLK TestCode: EPA Method 6010B: Soil Metals								·····
Client ID:	PBS	Batch	ID: 13	841	F	RunNo: 1	9463				
Prep Date:	6/23/2014	Analysis D	ate: 6 /	24/2014	S	eqNo: 5	63064	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10								
Cadmium		ND	0.10		-						
Chromium		ND	0.30								
Copper		ND	0.30								
Lead		ND	0.25								
Manganese		ND	0.10								
Selenium		ND	2.5								
Silver		ND	0.25							ι.	
Zinc		ND	2.5								
Sample ID	nple ID LCS-13841 SampType: LCS TestCode: EPA Method 6010B: Soil Metals									2	
Client ID:	LCSS	Batch	ID: 13	841	F	RunNo: 1					
Prep Date:	6/23/2014	Analysis D	ate: 6/	24/2014	5	SeqNo: 5	63065	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		23	2.5	25.00	0	90.7	80	120			
Barium		23	0.10	25.00	0	92.1	80	120			
Cadmium		23	0.10	25.00	0	92.3	80	120			
Chromium		23	0.30	25.00	0	91.7	80	120			
Copper		24	0.30	25.00	0	96.2	80	120		а. С	
Lead		22	0.25	25.00	0.	89.3	· 80	120			
Manganese		23	0.10	25.00	0	91.4	80	120			
Selenium		22	2.5	25.00	0	86.4	80	120			
Silver		4.8	0.25	5.000	0	95.2	80	120			
Zinc		- 22	2.5	25.00	0	89.3	80	120			
Sample ID	MB-13841	SampT	ype: Mi	BLK ·	Tes	tCode: El	PA Method	6010B: Soil I	Metals		
Client ID:	PBS	Batch	ID: 13	841	F	RunNo: 1	9483				
Prep Date:	6/23/2014	Analysis D	ate: 6/	25/2014	S	SeqNo: 5	63853	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		1.5	1.0				,				
Sample ID	LCS-13841	SampT	ype: LC	s	Tes	tCode: El	PA Method	6010B: Soil I	Metals		
Client ID:	LCSS	Batch	ID: 13	841	F	RunNo: 1	9483				
Prep Date:	6/23/2014	Analysis D	ate: 6/	25/2014	5	SeqNo: 5	63854	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iron		25	1.0	25.00	0	98.4	80	120			В

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 greater than 2.
- RL Reporting Detection Limit

WO#: 1406994

30-Jun-14

Page 6 of 6

HALL Hall Env ENVIRONMENTAL ANALYSIS LABORATORY Webst	ironmental Analysis Labor 4901 Hawkin Albuquerque, NM 8 5-345-3975 FAX: 505-345- ite: www.hallenvironment	atory 18 NE 17105 Sam 4107 Leom	ple Log-In Check List
Client Name: J & L LANDFARM Work Orde	er Number: 1406994		RcptNo: 1
Received by/date: MG 00/20	<u> </u>		
Logged By: Michelle Garcia 6/20/2014 8:	30:00 AM	Minute Con	nie
Completed By: Michelle Garçia 6/20/2014 12	2:47:28 PM	Minul Gon	une .
Reviewed By: MG ARI 11/23	14	<u> </u>	
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?	FedEx		
Log in			
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗌	
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 beadspace?	Yes	No 🗆	No VOA Vials 🗹
11. Were any sample containers received broken?	Yes	No 🗹	
12. Does paperwork match bottle labels?	Yes 🗹	No 🗖	# of preserved bottles checked for pH:
(Note discrepancies on chain of custody)		N. 🗆	(<2 or >12 unless noted) Adjusted?
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹		
15. Were all holding times able to be met?	Yes 🗹		Checked by:
(If no, notify customer for authorization.)			
<u>Special Handling (if applicable)</u>			
16. Was client notified of all discrepancies with this order?	Yes 🗔	No 🗆	NA 🗹
Person Notified:	Date:		
By Whom:	Via: 🗌 eMaii 🗌	Phone 🗌 Fax	🛄 In Person
Regarding:			
Client Instructions:	a a la constante de la constant		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
17. Additional remarks:			
18. <u>Cooler Information</u> Cooler No Temp °C Condition Seal Intact Se	eal No Seal Date	Signed By	
1 4.4 Good Yes			

Page 1 of 1

C	hain-	of-Cu	stody Reco	ord	Turn-Around	Time:						A 1 1		RIX.	/ T E	20			NIT	A I	
Client:					Standard	🗆 Rush	L					NA		іч ч 6т(2 I 7 I	ΔF	111 20			NL)Rì	/
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Phone	#: 51	5-63	1-5765		1			Analysis Request													
email o	r Fax#:	ilrob	9697 @ gol	com	Project Mana	iger:			(עור)	Ô				5							T
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 03, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Metals 5yr Cell 15

OrderNo.: 1406995

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/20/2014 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 <u>www.hallenvironmental.com</u> 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 1406995

Date Reported: 7/3/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Client Sample ID: Cell #15 #1 Vadose Zone Metals 5yr Cell 15 Collection Date: 6/19/2014 6:31:00 AM **Project:** Lab ID: 1406995-001 Matrix: SOIL Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 7471: MERCURY					Analyst	MMD		
Mercury	ND	0.034	mg/Kg	1	6/24/2014 2:14:35 PM	13842		
EPA METHOD 6010B: SOIL METALS					Analyst	ELS		
Arsenic	ND	5.0	mg/Kg	2	6/24/2014 11:40:04 AM	13841		
Barium	180	0.10	mg/Kg	1	6/24/2014 11:38:42 AM	13841		
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 11:38:42 AM	13841		
Chromium	3.0	0.30	mg/Kg	. 1	6/24/2014 11:38:42 AM	13841		
Copper	1.6	0.30	mg/Kg	1	6/24/2014 11:38:42 AM	13841		
Iron	2700	20	mg/Kg	. 20	6/25/2014 8:39:25 AM	13841		
Lead	ND	0.25	mg/Kg	1	6/24/2014 11:38:42 AM	13841		
Manganese	30	0.10	mg/Kg	1	6/24/2014 11:38:42 AM	13841		
Selenium	ND	2.5	mg/Kg	1	6/24/2014 11:38:42 AM	13841		
Silver	ND	0.25	mg/Kg	1	6/24/2014 11:38:42 AM	13841		
Zinc	6.7	2.5	mg/Kg	1	6/24/2014 11:38:42 AM	13841		

Oug	lifiers:
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- * 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
- S 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
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**
- Page 1 of 6

Hall Environmental Analysis	Labor	atory. Inc.			Analytical Report Lab Order 1406995	4				
CLIENT: J & L Landfarm			Client Sampl	e ID: Ce	Il #15 #2	• 				
Lab ID: 1406995-002	Matrix:	SOIL	Received Date: 6/20/2014 8:30:00 AM							
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch				
EPA METHOD 7471: MERCURY					Analyst	: MMD				
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:16:27 PM	13842				
EPA METHOD 6010B: SOIL METALS				•	Analyst	ELS				
Arsenic	ND	5.0	mg/Kg	2	6/24/2014 11:42:47 AM	13841				
Barium	210	0.10	mg/Kg	1	6/24/2014 11:41:26 AM	13841				
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 11:41:26 AM	13841				
Chromium	2.8	0.30	mg/Kg	1	6/24/2014 11:41:26 AM	13841				
Copper	1.7	0.30	mg/Kg	1	6/24/2014 11:41:26 AM	13841				
Iron	2700	20	⁻ mg/Kg	20	6/25/2014 8:40:46 AM	13841				
Lead	ND	0.25	mg/Kg	1	6/24/2014 11:41:26 AM	13841				
Manganese	34	0.10	mg/Kg	1	6/24/2014 11:41:26 AM	13841				
Selenium	ND	2.5	mg/Kg	1	6/24/2014 11:41:26 AM	13841				
Silver	' ND	0.25	mg/Kg	1	6/24/2014 11:41:26 AM	13841				
Zinc	6.9	2.5	mg/Kg	1	6/24/2014 11:41:26 AM	13841				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.		В	Analyte detected in the associated Metho	od Blank
•	Е	Value above quantitation range	н	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	· .	ND	Not Detected at the Reporting Limit	Page 2 of 6
	0	RSD is greater than RSDlimit		Р	Sample pH greater than 2.	r age 2 01 0
	R	RPD outside accepted recovery limits		RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits		•	•	

Date Reported: 7/3/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm	Client Sample ID: Cell #15 #3										
Project: Vadose Zone Metals 5yr Cell 15	<b>Collection Date: 6/19/2014 6:55:00 AM</b>										
Lab ID: 1406995-003	Matrix:	SOIL	Received	d Date: 6/20/2014 8:30:00 AM							
Analyses	Result	RL Qual	Units	DF Date Analyzed Batch							
EPA METHOD 7471: MERCURY				Analyst: MMD							
Mercury	ND	0.033	mg/Kg	1 6/24/2014 2:18:10 PM 13842							
EPA METHOD 6010B: SOIL METALS				Analyst: ELS							
Arsenic	ND	4.9	mg/Kg	2 6/24/2014 11:45:30 AM 13841							
Barium	380	0.20	mg/Kg	2 6/24/2014 11:45:30 AM 13841							
Cadmium	ND	0.099	mg/Kg	1 6/24/2014 11:44:07 AM 13841							
Chromium	2.0	0.30	mg/Kg	1 6/24/2014 11:44:07 AM 13841							
Copper	0.71	0.30	mg/Kg	1 6/24/2014 11:44:07 AM 13841							
Iron	1800	9.9	mg/Kg	10 6/25/2014 8:42:08 AM 13841							
Lead	ND	0.25	mg/Kg	1 6/24/2014 11:44:07 AM 13841							
Manganese	15	0.099	mg/Kg	1 6/24/2014 11:44:07 AM 13841							
Selenium	ND	2.5	mg/Kg	1 6/24/2014 11:44:07 AM 13841							
Silver	ND	0.25	mg/Kg	1 6/24/2014 11:44:07 AM 13841							
Zinc	5.1	2.5	mg/Kg	1 6/24/2014 11:44:07 AM 13841							

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
- P Sample pH greater than 2.
- RL Reporting Detection Limit
- Page 3 of 6
- -

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406995

Date Reported: 7/3/2014

CLIENT: J & L LandfarmClient SProject: Vadose Zone Metals 5yr Cell 15CollectLab ID: 1406995-004Matrix: SOILRece

Client Sample ID: Cell #15 #4 Collection Date: 6/19/2014 7:10:00 AM

Received Date: 6/20/2014 8:30:00 AM

Analyses	Result RL Qual Units			DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.032	`_mg/Kg	- 1	6/24/2014 2:19:55 PM	13842
EPA METHOD 6010B: SOIL METALS	• • •			•	Analyst	ELS
Arsenic	ND	4.8	mg/Kg	2	6/24/2014 11:48:11 AM	13841
Barium	340	0.19	mg/Kg	· 2	6/24/2014 11:48:11 AM	13841
Cadmium	ND [*]	0.097	mg/Kg	1	6/24/2014 11:46:52 AM	13841
Chromium	1.6	0.29	mg/Kg	. 1	6/24/2014 11:46:52 AM	13841
Copper	0.63	0.29	mg/Kg	1	6/24/2014 11:46:52 AM	13841
Iron	1500	9.7	mg/Kg	10	6/25/2014 8:43:29 AM	13841
Lead	ND	0.24	mg/Kg	1	6/24/2014 11:46:52 AM	13841
Manganese	13	0.097	mg/Kg	1	6/24/2014 11:46:52 AM	13841
Selenium	ND	2.4	mg/Kg	1	6/24/2014 11:46:52 AM	13841
Silver	ND	0.24	mg/Kg	1	6/24/2014 11:46:52 AM	13841
Zinc	4.2	2.4	mg/Kg	1	6/24/2014 11:46:52 AM	13841

Qualifiers:	*	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	NÐ	Not Detected at the Reporting Limit Page 4 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL '	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		and the second

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

J & L Landfarm

**Project:** Vadose Zone Metals 5yr Cell 15 Sample ID MB-13842 TestCode: EPA Method 7471: Mercury SampType: MBLK Client ID: PBS Batch ID: 13842 RunNo: 19472 Prep Date: SeqNo: 563441 6/23/2014 Analysis Date: 6/24/2014 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Analyte ND 0.033 Mercury

Sample ID LCS-13842	SampType: LCS	TestCode: EPA Method	od 7471: Mercury							
Client ID: LCSS	Batch ID: 13842	RunNo: 19472								
Prep Date: 6/23/2014	Analysis Date: 6/24/2014	SeqNo: 563444	Units: mg/Kg							
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual							
Mercury	0.16 0.033 0.1667	0 97.8 80	120							

#### Qualifiers:

**Client:** 

- * 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 greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

reater than 2

WO#:

1406995

Qual

03-Jul-14

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

**Client:** J & L Landfarm

Ξ

**Project:** Vadose Zone Metals 5yr Cell 15

Sample ID	MB-13841	SampType: MBLK TestCode: EPA Method 6010B: Soil Metals									
Client ID:	PBS	Batch	ID: 13	841	F	RunNo: 1	9463				
Prep Date:	6/23/2014	Analysis D	ate: 6	/24/2014	S	SeqNo: 5	63064	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	2.5								
Barium		ND	0.10						,		
Cadmium		ND	0.10								
Chromium		ND	0.30								
Copper		ND	0.30								
Lead		ND	0.25								
Manganese		ND	0.10								
Selenium		ND	2.5								
Silver		ND	0.25								
Zinc		ND	2.5								
Sample ID	LCS-13841	SampT	ype: LC	s	Tes	tCode: E	PA Method	6010B: Soil	Metals		
Client ID:	LCSS	Batch ID: 13841			F	RunNo: 1					
Prep Date:	6/23/2014	Analysis D	ate: 6/	24/2014	S	SeqNo: 5	63065	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		23	2.5	25.00	0	90.7	80	120			
Barium		23	0.10	25.00	0	92.1	80	120			
Cadmium		23	0.10	25.00	0	92.3	80	120			
Chromium		23	0.30	25.00	0	91.7	80	120			
Copper		24	0.30	25.00	0	96.2	80	· 120			
Lead		22	0.25	25.00	0	89.3	80	120			
Manganese		23	0.10	25.00	0	91.4	80	120			
Selenium		22	2.5	25.00	0	86.4	80	120			
Silver		4.8	0.25	. 5.000	0	95.2	80	120			
Zinc		22	2.5	25.00	0	89.3	80	120			
Sample ID	MB-13841	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	6010B: Soil I	Vietals		
Client ID:	PBS	Batch	ID: 13	841	R	RunNo: 1	9483				
Prep Date:	6/23/2014	Analysis D	ate: 6/	25/2014	s	eqNo: 5	63853	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		1.5	1.0			_					
Sample ID	LCS-13841	SampT	ype: LC	S	Tes	tCode: Ei	PA Method	6010B: Soil I	Metals		
Client ID:	LCSS	Batch	ID: 13	841	R	RunNo: 1	9483				
Prep Date:	6/23/2014	Analysis D	ate: <b>6</b> /	25/2014	. s	eqNo: 5	63854	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		25	1.0	25.00	0	98.4	80	120			B

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

Analyte detected below quantitation limits J

0 RSD is greater than RSDlimit

- R RPD outside accepted recovery limits
- S 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 greater than 2. Р
- **Reporting Detection Limit** RL

Page 6 of 6

03-Jul-14

1406995

WO#:

HALL Environmental Analysis Laboratory	Hall Environmental A Albuq TEL: 505-345-3975 I Website: www.hall	Analysis Labord 4901 Hawkin querque, NM 8 FAX: 505-345- lenvironmental	ator) s NE 7105 <b>Sam</b> 4107 .com	ample Log-In Check List									
Client Name: J & L LANDFARM	Work Order Number:	1406995		RcptNo:	1								
Received by/date: Mg	06/20/14		-Minhul Ca										
Logged By: Michelle Garcia	6/20/2014 8:30:00 AM		no o										
Completed By: Michelle Garcia	6/20/2014 12:51:02 PM		41 pubills Cp	un)									
Reviewed By: NG	06/23/14												
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?		FedEx											
Log In													
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 🗋										
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗌										
7. Sufficient sample volume for indicated test(s	3)?	Yes 🗹	No 🗌										
8. Are samples (except VOA and ONG) proper	ty 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 broke	en?	Yes	No 🗹	# of preserved									
12.Does paperwork match bottle labels? (Note discregancies on chain of custody)		Yes 💆	No 🗖	for pH:(<2 or	>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? (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 🗹									

Date:

Vla:

Cooler No Temp C Condition Seal Intact Seal No Seal Date

Yes

Good

eMail Phone Fax In Person

Signed By

Page 1 of 1

4.4

Person Notified:

By Whom:

Regarding: Client Instructions:

17. Additional remarks:

18. Cooler Information

1

Client:	Chain-of-Custody Record		Turn-Around Time:																		
					Standard		۱ <u></u>	╎∟			Å	NA	LY	SI	5 L	.AI	<b>BO</b>	R/	<b>4T</b> (	DR	Y
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Po	Bex	356	Habbs um 8	8241	Project #:			1	Τe	əl. 50	5-34	5-397	5	Fax	505-	-345	-410	7			
Phone	#: 575	5-631	- 5765		1								Ana	ysis	Req	ues	t				
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	) (Type) _		· · · · ·	<u></u>	Sample Tem	perature:	<i>[[4]</i>		TBE	<u>0</u>	b	po	etal 2		cide	(¥	i-VC	9			کر م
Date	Time	Matrix	Sample Req	uest ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + M	BTEX + M	rph 8015	<b>FPH</b> (Meth	EDB (Meth	SCRA 8 M	Anions (F,(	3081 Pesti	3260B (VC	3270 (Sem	metal			Air Bubble
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Date:	Time: // <b>3</b> 0 Time:	Relinquish	ed by:		Received by:	iu fa	Date Time	Rer A	nark F	s: Ba	cd	Cr	Cu	Fe	P	6	mns	H	 9 5		 q Za

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 03, 2014

Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Metals 5yr Cell #17

OrderNo.: 1406996

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/20/2014 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 <u>www.hallenvironmental.com</u> 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,

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 7/3/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L LandfarmClient Sample ID: Cell #17 #1Project: Vadose Zone Metals 5yr Cell #17Collection Date: 6/19/2014 8:25:00 AMLab ID: 1406996-001Matrix: SOILReceived Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 7471: MERCURY					Analyst	MMD	
Mercury	ND	0.031	mg/Kg	1	6/24/2014 2:21:40 PM	13842	
EPA METHOD 6010B: SOIL METALS					Analyst	ELS	
Arsenic	ND	5.0	mg/Kg	2	6/24/2014 11:57:29 AM	13841	
Barium	210	0.10	mg/Kg	1	6/24/2014 11:56:04 AM	13841	
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 11:56:04 AM	13841	
Chromium	2.1	0.30	mg/Kg	1	6/24/2014 11:56:04 AM	13841	
Copper	1.4	0.30	mg/Kg	1	6/24/2014 11:56:04 AM	13841	
Iron	2200	10	mg/Kg	10	6/25/2014 8:44:51 AM	13841	
Lead	ND	0.25	mg/Kg	1	6/24/2014 11:56:04 AM	13841	
Manganese	23	0.10	mg/Kg	1	6/24/2014 11:56:04 AM	13841	
Selenium	ND	2.5	mg/Kg	1	6/24/2014 11:56:04 AM	13841	
Silver	ND	0.25	mg/Kg	1	6/24/2014 11:56:04 AM	13841	
Zinc	6.0	2.5	mg/Kg	1	6/24/2014 11:56:04 AM	13841	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 450 1 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

	Hall	Environmenta	al Anal	ysis La	aborator	y, Inc.
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#### CLIENT: J & L Landfarm

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Analyses

Vadose Zone Metals 5yr Cell #17 **Project:** 1406996-002 Lab ID:

## **Analytical Report** Lab Order 1406996

Date Reported: 7/3/2014

Client Sample ID: Cell #17 #2 Collection Date: 6/19/2014 8:34:00 AM

Matrix: SOIL Received Date: 6/20/2014 8:30:00 AM , Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 7471: MERCURY** Analyst: MMD 42 41 41 41

					7 11 101 7 0 1	
Mercury	ND	0.034	mg/Kg	1	6/24/2014 2:23:26 PM	13842
EPA METHOD 6010B: SOIL METALS				··· .	Analyst:	ELS
Arsenic	ND	5.1	mg/Kg	2	6/24/2014 12:00:14 PM	13841
Barium	200	0.10	mg/Kg	1	6/24/2014 11:58:51 AM	13841
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 11:58:51 AM	13841
Chromium	1.9	0.31	mg/Kg	1	6/24/2014 11:58:51 AM	13841
Copper	1.4	0.31	mg/Kg	1	6/24/2014 11:58:51 AM	13841
Iron	· 2200	10	mg/Kg	10	6/25/2014 8:46:15 AM	13841
Lead	ND	0.26	mg/Kg	. 1	6/24/2014 11:58:51 AM	13841
Manganese	23	0.10	mg/Kg	1	6/24/2014 11:58:51 AM	13841
Selenium	ND	2.6	mg/Kg	1	6/24/2014 11:58:51 AM	13841
Silver	¹⁷ ND	0.26	mg/Kg	1	6/24/2014 11:58:51 AM	13841
Zinc	5.3	2.6	mg/Kg	1	6/24/2014 11:58:51 AM	13841

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	d Blank
	Ε	Value above quantitation range	Н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	• ,		

Date Reported: 7/3/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm		Client Sample ID: Cell #17 #3							
Project: Vadose Zone Metals 5yr Cel	1 #17	Collection Date: 6/19/2014 8:42:00 AM							
Lab ID: 1406996-003	Matrix: S	SOIL	Received	<b>Date:</b> 6/2	20/2014 8:30:00 AM				
Analyses	Result	RL Qua	Units	DF	Date Analyzed	Batch			
EPA METHOD 7471: MERCURY					Analyst	MMD			
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:28:56 PM	13842			
EPA METHOD 6010B: SOIL METALS					Analyst	ELS			
Arsenic	ND	5.0	mg/Kg	2	6/24/2014 12:03:02 PM	13841			
Barium	66	0.10	mg/Kg	1	6/24/2014 12:01:39 PM	13841			
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 12:01:39 PM	13841			
Chromium	6.0	0.30	mg/Kg	1	6/24/2014 12:01:39 PM	13841			
Copper	2.7	0.30	mg/Kg	1	6/24/2014 12:01:39 PM	13841			
Iron	6700	50	mg/Kg	50	6/25/2014 8:47:36 AM	13841			
Lead	1.1	0.25	mg/Kg	1	6/24/2014 12:01:39 PM	13841			
Manganese	61	0.10	mg/Kg	1	6/24/2014 12:01:39 PM	13841			
Selenium	ND	2.5	mg/Kg	1	6/24/2014 12:01:39 PM	13841			
Silver	ND	0.25	mg/Kg	1	6/24/2014 12:01:39 PM	13841			
Zinc	15	2.5	mg/Kg	1	6/24/2014 12:01:39 PM	13841			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 6
	0	RSD is greater than RSD limit	Р	Sample pH greater than 2.	1 450 5 61 6
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical	Report
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# Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406996 Date Reported: 7/3/2014

CLIENT: J & L LandfarmClient Sample ID: Cell #17 #4Project: Vadose Zone Metals 5yr Cell #17Collection Date: 6/19/2014 8:52:00 AMLab ID: 1406996-004Matrix: SOILReceived Date: 6/20/2014 8:30:00 AM

Analyses Result **RL** Qual Units **DF** Date Analyzed Batch Analyst: MMD **EPA METHOD 7471: MERCURY** ND 6/24/2014 2:30:42 PM 13842 Mercury 0.033 mg/Kg 1 EPA METHOD 6010B: SOIL METALS Analyst: ELS ND Arsenic 5.0 mg/Kg 2 6/24/2014 12:05:51 PM 13841 Barium 53 0:10 mg/Kg 1 6/24/2014 12:04:28 PM 13841 Cadmium ND 0.10 mg/Kg 1 6/24/2014 12:04:28 PM 13841 Chromium 5.3 0.30 mg/Kg 1 6/24/2014 12:04:28 PM 13841 Copper 2.4 0.30 mg/Kg 1 6/24/2014 12:04:28 PM 13841 Iron 6800 6/25/2014 8:48:55 AM 50 mg/Kg 50 13841 0.89 0.25 6/24/2014 12:04:28 PM 13841 Lead mg/Kg 1 Manganese 55 0.10 mg/Kg 6/24/2014 12:04:28 PM 13841 1 Selenium ND 6/24/2014 12:04:28 PM 2.5 mg/Kg 13841 1 ND Silver 0.25 6/24/2014 12:04:28 PM 13841 mg/Kg 1 6/24/2014 12:04:28 PM 13841 Zinc 14 2.5 mg/Kg 1

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	•	В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range		Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	. 1	ND	Not Detected at the Reporting Limit	Page 4 of 6
	0	RSD is greater than RSDlimit	· ·	Р	Sample pH greater than 2.	1 age 4 01 0
	R	RPD outside accepted recovery limits		RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			· · ·	

# QC SUMMARY REPORT

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1406996

Quai

03-Jul-14

J & L Landfarm

Client: Project:	J & L Vados	Landfarm se Zone Metals 5yr Cell #17	· · · · ·
Sample ID	MB-13842	SampType: MBLK	TestCode: EPA Method 7471: Mercury
Client ID:	PBS	Batch ID: 13842	RunNo: 19472
Prep Date:	6/23/2014	Analysis Date: 6/24/2014	SeqNo: 563441 Units: mg/Kg
Analyte		Result PQL SPK va	alue SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit
Mercury		ND 0.033	
Sample ID	LCS-13842	SampType: LCS	TestCode: EPA Method 7471: Mercury
Client ID:	LCSS	Batch ID: 13842	RunNo: 19472
Dur Date		Analysis Datas alouioodd	

Fiep Date.	0/23/2014	Analysis		24/2014		equito. or	03444	Units. my/r	<i>.</i> a		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.16	0.033	0.1667	0	97.8	80	120			

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range Е
- Analyte detected below quantitation limits J
- 0 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 в
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL **Reporting Detection Limit**

Page 5 of 6

## **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1406996

03-Jul-14

**Client:** J & L Landfarm **Project:** Vadose Zone Metals 5yr Cell #17 Sample ID MB-13841 TestCode: EPA Method 6010B: Soil Metals SampType: MBLK Client ID: PBS Batch ID: 13841 RunNo: 19463 Prep Date: 6/23/2014 Analysis Date: 6/24/2014 SeqNo: 563064 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Arsenic ND 2.5 Barium ND 0.10 0.10 Cadmium ND ND 0.30 Chromium ND 0.30 Copper ND 0.25 Lead ND 0.10 Manganese ND 2.5 Selenium Silver ND 0.25 Zinc ND 2.5 Sample ID LCS-13841 SampType: LCS TestCode: EPA Method 6010B: Soil Metals Client ID: LCSS Batch ID: 13841 RunNo: 19463 Analysis Date: 6/24/2014 Prep Date: 6/23/2014 SeqNo: 563065 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 23 25.00 90.7 2.5 80 120 Arsenic 0 Barium 23 0.10 25.00 0 92.1 80 120 Cadmium 23 0.10 25.00 0 92.3 80 120 23 0.30 25.00 0 91.7 Chromium 80 120 Copper 24 0.30 25.00 0 96.2 80 120 Lead 22 0.25 25.00 0 89.3 80 120 23 0.10 25.00 ٥ 91.4 Manganese 80 120 Selenium 22 2.5 25.00 0 86.4 80 120 Silver 4.8 0.25 5.000 0 95.2 80 120 Zinc 22 25.00 ۵ 2.5 89.3 80 120 Sample ID MB-13841 SampType: MBLK TestCode: EPA Method 6010B: Soil Metals Client ID: PBS Batch ID: 13841 RunNo: 19483 Prep Date: 6/23/2014 Analysis Date: 6/25/2014 SeqNo: 563853 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 1.5 1.0 iron Sample ID LCS-13841 TestCode: EPA Method 6010B: Soil Metals SampType: LCS Client ID: LCSS Batch ID: 13841 RunNo: '19483 Prep Date: 6/23/2014 Analysis Date: 6/25/2014 SeqNo: 563854 Units: mg/Kg **RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Qual Iron 25 1.0 25.00 0 98.4 80 120 в Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank

Not Detected at the Reporting Limit

- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit

Ε

R RPD outside accepted recovery limits

Value above quantitation range

- S Spike Recovery outside accepted recovery limits
- P Sample pH greater than 2.
- RL Reporting Detection Limit

ND

Page 6 of 6

HALL Hall E ENVIRONMENTAL ANALYSIS LABORATORY TEL: : Web	nvironmental Analysis Labor 4901 Hawkin Albuquerque, NM 8 505-345-3975 FAX: 505-345- bsite: www.hallenvironmental	ator, ss NE 7105 <b>Sam</b> 4107 Leom	ple Log-In Che	eck List
Client Name: J & L LANDFARM Work On	der Number: 1406996		RcptNo: 1	
Received by/date: Mg Qu 20/14				
Logged By: Michelle Garcia \$/20/2014	8:30:00 AM	Michelle Gor	un	
Completed By: Michelle Garcia 6/20/2014 Reviewed By: M. J. J. Old	12:53:29 PM J3 /IY	Minul Gr	uin)	
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?	FedEx			
<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 🗔		
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗔	4	
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗌		
8. Are samples (except VOA and ONG) properly preserved	i? Yes 🗹	No 🗌		
9. Was preservative added to bottles?	Yes 🗋	No 🗹	NA 🗌	
10.VOA viais have zero headspace?	Yes	No 🗆	No VOA Vials 🗹	
11. Were any sample containers received broken?	Yes 🗌	No 🗹	# of preserved	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗌	for pH:	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:	

Special Handling (if applicable)

(If no, notify customer for authorization.)

16.V	Nas client notified of all c	liscrepancies with this order?	Yes 🗌	No 🗌	NA 🗹
	Person Notified:		Date:	14	
	By Whom:		Via: 🗌 eMail 🗌 P	hone 🔲 Fax 🔲 I	n Person
	Regarding:		المراجع المراجع المراجع المراجع		· · · · · · · · · · · · · · · · · · ·
	Client Instructions:	م من	المراجع	0	البوريد ويديجيني

17. Additional remarks:

18. Cooler Information

Ē	Cooler No Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By	
0	4.4	Good	Yes				

Page 1 of 1

C	Chain-of-Custody Record		Turn-Arour	nd Time:						B.			E		TE	<u>)</u>	<b>N1</b> 2	ME	NT	· A 1			
Client:					Standa	nd 🗆	Rush	)					N.	LL 81	EI YS	515	5 I		30	R	ATC	אר אר	Y
T+	L ha	J.L.	<i>w</i>		Project Na	me:	one	metas					www	r.hal	lenv	ironr	nent	al.co	om				-
Mailing	Address	U			5	Ir Ce	11	<i>±17</i>		49	01 H	awki	ns N	E -	Alb	uque	erqu	e, N	M 87	7109			
POE	or 3	56	Hobbs NM	88241	Project #:					Τe	el. 50	5-34	5-39	975	۶	ax	505-	345	-410	7			
Phone	#: 52	5-63	1-5763	•										Α	naly	sis	Req	uesi	ŧ				
email o	r Fax#:	ilrob	969700	olicom	Project Ma	nager:			Ð	(yln	ЯŐ)					( [†] O	6						
QA/QC	Package:					P			802	as o	M			<u>(</u> )		04,S	ğ						
Star	ndard		🗆 Level 4 (Fu	Il Validation)	Jud	4 60	<u>pert</u>	5	3's (	9	R			NS I		P, P	32 P					ĺ	
	itation AP	🗆 Othe	۱		Sampler:	Zp/T			IN I	Ē	10	8.1)	<u>-</u>	3270	i	NC NC	/ 80		0				Î
	) (Type)				Sample Te	mperatur	e.	<u> </u>	÷	+ 	(GR	4	9	٥٣	als	0 N	des		VOA				o ∠
Date	Time	Matrix	Sample F	Request ID	Containe Type and	r Presei # Ty	vative	HEALNO	EX + MTE	EX + MTE	H 8015B	H (Metho	B (Metho	H's (8310	RA 8 Met	ons (F,Cl	31 Pestici	SOB (VOA	0 (Semi-	كالمطالح			Bubbles
								406996	BTI	BTI	d	Ē		PA	RC	Ani	806	826	827	٤			Air
2/12/14	0825	soil	<u>Cell ≠ 17</u>	₩ E	1400-9	s ice	2	-001												X			
1	0834		· · ·	#2				-002										_		x			
	0842			#3				- 003							-				·	X		ŀ	T
	0852		4	КЦ	×	4		-004												X	$\downarrow$		—
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Date:	1130 Time:	Reling	ed by:		Received by:	s F	}	Dete Time	Å	s Ba	з. СС	lc	- 0	i.	Fe	- P	61	MN	4	<del>م</del> ۽	e A	3 21	4
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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# HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 03, 2014 Judy Roberts J & L Landfarm PO Box 356 Hobbs, NM 88241 TEL: (575) 631-5765 FAX

RE: Vadose Zone Metals 5yr Cell #16

OrderNo.: 1406997

Dear Judy Roberts:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/20/2014 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 <u>www.hallenvironmental.com</u> 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

Date Reported: 7/3/2014

# Hall Environmental Analysis Laboratory, Inc.

Project:

Lab ID:

CLIENT: J & L Landfarm Client Sample ID: Cell #16 #1 Vadose Zone Metals 5yr Cell #16 Collection Date: 6/19/2014 7:31:00 AM 1406997-001 Matrix: SOIL Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:32:30 PM	13842
EPA METHOD 6010B: SOIL METALS					Analyst	ELS
Arsenic	ND	4.9	mg/Kg	. 2	6/24/2014 12:08:34 PM	13841
Barium	99	0.099	mg/Kg	- 1	6/24/2014 12:07:13 PM	13841
Cadmium	ND	0.099	mg/Kg	· 1	6/24/2014 12:07:13 PM	13841
Chromium	3.8	0.30	mg/Kg	1	6/24/2014 12:07:13 PM	13841
Copper	2.1	0.30	mg/Kg	1	6/24/2014 12:07:13 PM	13841
Iron	4200	20	mg/Kg	20	6/25/2014 8:50:15 AM	13841
Lead	0.39	0.25	mg/Kg	1	6/24/2014 12:07:13 PM	13841
Manganese	42	0.099	mg/Kg	1	6/24/2014 12:07:13 PM	13841
Selenium	ND	2.5	mg/Kg	1	6/24/2014 12:07:13 PM	13841
Silver	ND	0.25	mg/Kg	1	6/24/2014 12:07:13 PM	13841
Zinc	9.8	2.5	mg/Kg	1	6/24/2014 12:07:13 PM	13841

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Ε	Value above quantitation range	н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	' ND	Not Detected at the Reporting Limit	Page 1 of 6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	r ugo r or o
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Date Reported: 7/3/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm

Project: Vadose Zone Metals 5yr Cell #16

Lab ID: 1406997-002 Matrix: SOIL

Client Sample ID: Cell #16 #2 Collection Date: 6/19/2014 7:44:00 AM Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Qu	ial Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:34:18 PM	13842
EPA METHOD 6010B: SOIL METALS				•	Analyst	ELS
Arsenic	ND	· 4.8	mg/Kg	2	6/24/2014 12:16:35 PM	13841
Barium	· 44	0.096	mg/Kg	1	6/24/2014 12:15:10 PM	13841
Cadmium	· ND	0.096	mg/Kg	1	6/24/2014 12:15:10 PM	13841
Chromium	4.7	0.29	mg/Kg	1	6/24/2014 12:15:10 PM	13841
Copper	2.0	0.29	mg/Kg	1	6/24/2014 12:15:10 PM	13841
Iron	6600	48	mg/Kg	50	6/25/2014 9:51:54 AM	13841
Lead	1.4	0.24	mg/Kg	1	6/24/2014 12:15:10 PM	13841
Manganese	67	0.096	mg/Kg	1	6/25/2014 8:51:36 AM	13841
Selenium	ND	2.4	mg/Kg	1	6/24/2014 12:15:10 PM	13841
Silver	· ND	0.24	mg/Kg	1	6/24/2014 12:15:10 PM	13841
Zinc	15	2.4	mg/Kg	1	6/25/2014 8:51:36 AM	13841

					_
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	-
	Ε	Value above quantitation range	н	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2 of	6
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	Ŭ
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits	• •		

Date Reported: 7/3/2014

## Hall Environmental Analysis Laboratory, Inc.

# CLIENT: J & L Landfarm Client Sample ID: Cell #16 #3 Project: Vadose Zone Metals 5yr Cell #16 Collection Date: 6/19/2014 7:53:00 AM Lab ID: 1406997-003 Matrix: SOIL Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Qu	al Units	D	F Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analys	t: MMD
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:36:06 PM	13842
EPA METHOD 6010B: SOIL METALS				I.	Analys	t: ELS
Arsenic	ND	2.6	mg/Kg	<b>1</b>	6/24/2014 12:17:54 PM	1 13841
Barium	32	0.10	mg/Kg	1	6/24/2014 12:17:54 PM	1 13841
Cadmium	ND	0.10	mg/Kg	1	6/24/2014 12:17:54 PM	1 13841
Chromium	5.3	0.31	mg/Kg	1	6/24/2014 12:17:54 PM	1 13841
Copper	1.9	0.31	mg/Kg	1	6/24/2014 12:17:54 PM	1 13841
iron	6600	51	mg/Kg	' 5	0 6/25/2014 9:54:35 AM	13841
Lead	1.3	0.26	mg/Kg	. 1	6/24/2014 12:17:54 PN	1 13841
Manganese	71	0.10	mg/Kg	· 1	6/25/2014 9:53:15 AM	13841
Selenium	ND	2.6	mg/Kg	· 1	6/24/2014 12:17:54 PN	1 13841
Silver	ND	0.26	mg/Kg	+ 1	6/24/2014 12:17:54 PM	1 13841
Zinc	16	2.6	mg/Kg	1	6/25/2014 9:53:15 AM	13841

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth-	od Blank			
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded				
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 6			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 460 5 01 0			
-	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits			r			

Date Reported: 7/3/2014

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: J & L Landfarm Project: Vadose Zone Metals 5yr Cell #16

Lab ID: 1406997-004 Matrix: SOIL

Client Sample ID: Cell #16 #4 Collection Date: 6/19/2014 8:02:00 AM Received Date: 6/20/2014 8:30:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY					Analyst	MMD
Mercury	ND	0.033	mg/Kg	1	6/24/2014 2:37:54 PM	13848
EPA METHOD 6010B: SOIL METAL	S			:	Analyst	ELS
Arsenic	ND	5.0	mg/Kg	2	6/24/2014 12:22:00 PM	13841
Barium	32	0.10	mg/Kg	[,] 1	6/24/2014 12:20:39 PM	13841
Cadmium	ND	0.10	mg/Kg	· 1	6/24/2014 12:20:39 PM	13841
Chromium	4.8	0.30	mg/Kg	1	6/24/2014 12:20:39 PM	13841
Copper	1.8	0.30	mg/Kg	1	6/24/2014 12:20:39 PM	13841
iron	5400	50	mg/Kg	50	6/25/2014 9:57:10 AM	13841
Lead	_ 1.3	0.25	mg/Kg	1	6/24/2014 12:20:39 PM	13841
Manganese	58	0.10	mg/Kg	1	6/25/2014 9:55:57 AM	13841
Selenium	ND	2.5	mg/Kg	1	6/24/2014 12:20:39 PM	13841
Silver	ND	0.25	mg/Kg	1	6/24/2014 12:20:39 PM	13841
Zinc	14	2.5	mg/Kg	1	6/25/2014 9:55:57 AM	13841

• • •

Qualifiers:	*	Value exceeds Maximum Contaminant Level.			В	Analyte detected in the associated Metho	d Blank
	Е	Value above quantitation range	•	·	Н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits		$(x, f_{i,k}) \in \mathcal{F}_{i,k}$	ND	Not Detected at the Reporting Limit	Dage 1 of f
	0	RSD is greater than RSDlimit			P	Sample pH greater than 2.	1 age 4 01 0
	R	RPD outside accepted recovery limits			RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits					

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	J & L Lar Vadose Z	ndfarm one Metal	s 5yr (	Cell #16							
Sample ID	MB-13842	SampT	ype: N	IBLK	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID:	PBS	Batch	1D: 1	3842	F	RunNo: 1	9472	•			
Prep Date:	6/23/2014	Analysis D	ate: (	6/24/2014	S	SeqNo: 5	63441	Units: mg/M	Κg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.033	} 							
Sample ID	LCS-13842	SampT	ype: L	cs	Tes	tCode: E	PA Method	7471: Mercu			
Client ID:	LCSS	Batch	1D: 1	3842	F	RunNo: 1	9472				
Prep Date:	6/23/2014	Analysis D	ate: (	5/24/2014	5	SeqNo: 5	63444	Units: mg/H	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.16	0.033	3 0.1667	0	97.8	80	120			
Sample ID	MB-13848	SampT	ype: N	 IBLK	Tes	tCode: E	PA Method	7471: Mercu	ry		
Client ID:	PBS	Batch	1D: 1	3848	F	RunNo: 1	9472				
Prep Date:	6/23/2014	Analysis D	ate: (	6/24/2014	5	SeqNo: 5	63447	Units: mg/H	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.033	3							
Sample ID	LCS-13848	SampT	ype: L	CS	Tes	tCode: E	PA Method	7471: Mercu	 ry		
Client ID:	LCSS	Batch	1D: 1	3848	F	RunNo: 1	9472				
Prep Date:	6/23/2014	Analysis D	ate: 6	5/24/2014	5	SeqNo: 5	63450	Units: mg/M	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.17	0.033	3 0.1667	0	105	80	120		<u> </u>	
Sample ID	1406997-004AMS	SampT	 ype: №	 IS	Tes	tCode: E	PA Method	7471: Mercu	 ry		
Client ID:	Cell #16 #4	Batch	D: 1	3848	F	RunNo: 1	9472				
Prep Date:	6/23/2014	Analysis D	ate: (	6/24/2014	S	SeqNo: 5	63478	Units: mg/H	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	······	0.17	0.032	2 0.1609	0.006582	103	75	125			
Sample ID	1406997-004AMSE	) SampT	ype: N	 ISD	Tes	tCode: E	PA Method	7471: Mercu	ту		
Client ID:	Cell #16 #4	Batch	1D: 1	3848	F	RunNo: 1	9472				
Prep Date:	6/23/2014	Analysis D	ate: (	5/24/2014	5	SeqNo: 5	63479	Units: mg/H	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.18	0.033	3 0 1648	0.006582	102	75	125	2.03	20	

#### 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 greater than 2.
- RL Reporting Detection Limit

Page 5 of 6

03**-**Jul-14

1406997

WO#:

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

Client: J & L Landfarm

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Project: Vadose Zone Metals 5yr Cell #16

Sample ID MB-13841	SampType: MBLK	SampType: MBLK TestCode: EPA Method 6010B: So									
Client ID: PBS	Batch ID: 13841	RunNo: 19463									
Prep Date: 6/23/2014	Analysis Date: 6/24/2014	SeqNo: 563064	Units: mg/Kg	• • •							
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual							
Arsenic	ND 2.5										
Barium	ND 0.10		1								
Cadmium	ND 0.10										
Chromium	ND 0.30										
Copper	ND 0.30										
Lead	ND 0.25										
Manganese	ND 0.10										
Selenium	ND 2.5										
Silver	ND 0.25	•									
Zinc	ND 2.5										
Sample ID LCS-13841	SampType: LCS TestCode: EPA Method 6010B: Soil Metals										
Client ID: LCSS	Batch ID: 13841	RunNo: 19463									
Prep Date: 6/23/2014	Analysis Date: 6/24/2014	SeqNo: 563065	Units: <b>mg/Kg</b>								
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual							
Arsenic	23 2.5 25.00	0 90.7 80	120	•.							
Barium	23 0.10 25.00	0 92.1 80	120								
Cadmium	23 0.10 25.00	0 92.3 80	120								
Chromium	23 0.30 25.00	0 91.7 80	120								
Copper	24 0.30 25.00	0 96.2 80	120								
Lead	22 0.25 25.00	0 89.3 80	120 -								
Manganese	23 0.10 25.00	0 91.4 80	120								
Selenium	22 2.5 25.00	0 86.4 80	120								
Silver	4.8 0.25 5.000	0 95.2 80	120								
Zinc	22 2.5 25.00	0 89.3 80	120								
Sample ID MB-13841	SampType: MBLK	TestCode: EPA Method	6010B: Soil Metals								
Client ID: PBS	Batch ID: 13841	RunNo: 19483									
Prep Date: 6/23/2014	Analysis Date: 6/25/2014	SeqNo: 563853	Units: mg/Kg								
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual							
Iron	1.5 1.0			,							
Sample ID LCS-13841	SampType: LCS	TestCode: EPA Method	6010B: Soil Metals								
Client ID: LCSS	Batch ID: 13841	RunNo: 19483									
Prep Date: 6/23/2014	Analysis Date: 6/25/2014	SeqNo: 563854	Units: mg/Kg								
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual							
Iron	25 1.0 25.00	0 98.4 80	120	В							

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 greater than 2.

RL Reporting Detection Limit

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1406997

WO#:

03-Jul-14

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albuq TEL: 505-345-3975 F Website: www.hall	nalysi 4901 uerqu FAX: 5 enviro	s Laborator Hawkins N e, NM 8710 05-345-410 nmental.com	Sample Log-In Check List											
Client Name: J & L LANDFARM	Nork Order Number: 1	14069	97		RcptNo:										
Received by/date:	0/2014 8:30:00 AM 20/2014 8:30:00 AM 20/2014 1:04:53 PM 0/23/14		•	Mürule Gon Mürule Gon	ue)										
Chain of Custody			-	N- [7]											
1, Custody seals intact on sample bottles?		Yes													
2. Is chain of Custody complete?		Tes													
3. How was the sample delivered?		<u>reor</u>	X												
<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 È										
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 p	reserved?	Yes		No 🗌	_										
9. Was preservative added to bottles?		Yes		No 🗹	NA LI										
10 VOA vials have zero headspace?		Yes		No 🗍	No VOA Vials 🔽										
11 Were any sample containers received broken?		Yes		No 🗹 (											
					# of preserved										
12. Does paperwork match bottle labels?		Yes		No 🗋	for pH:										
(Note discrepancies on chain of custody)				N. [7]	or (<2 or Adjusted?	>12 unless noted)									
13. Are matrices correctly identified on Chain of Cus	stody?	Yes													
15. Were all holding times able to be met?		Ves			Checked by:										
(If no, notify customer for authorization.)		103													
Special Handling (if applicable)															
16. Was client notified of all discrepancies with this	order?	Yes		No 🗋	NA 🗹										
Person Notified:	Date:	u		1. AF 1/18 115 - No. 1											
By Whom:	Via:	] eMa	uil 📋 Pho	one 🔲 Fax	in Person										
Regarding:	add at 1975 words" An altern in all the edition of the second second		and deviation of the second symposium		trainfluine contraction and the second s										
Client Instructions:	· · · · · · · · · · · · · · · · · · ·														
17. Additional remarks:															
18. <u>Cooler Information</u>															
Cooler No Temp °C Condition Seal I	ntact Seal No Se	eal Da	nte S	igned By											
1 4.4 Good Yes															
Page 1 of 1				•		<u></u>									

Chain-of-Custody Record Client: <u>S+L Landfarm</u> Mailing Address: D D Box 35/2 Libbs NM			Turn-Around Project Name Project #	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax. 505-345-4107																	
Phone	#: 57	5-63	1- 5765	7								A	naly	/sis	Req	ues	t				i i
email or Fax#: 1106 9697 19 AoL.com		Project Manager:				<u>ارک</u>	Îĝ					04)									
QA/QC	Package:				<b>~</b>		221	as or	/ MF			ŝ		₄ ,S(	CB's						
Standard 🗆 Level 4 (Full Validation)		Judy Koberts			3) S,	Ű	R B			SIM		۲ ۵	5 P								
Accreditation		Sampler: Lag In-				H	D/0	Ê	Ę	270		Ň	808						Î		
□ NELAP □ Other		On Ice:				;+ 	3RC	418	20	5 8	lis	Ş	es /		S	4			o.		
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALNO	BTEX + MTBI	BTEX + MTBI	TPH 8015B (0	TPH (Method	EDB (Method	PAH's (8310 d	RCRA 8 Meta	Anions (F,Cl,I	8081 Pesticid	8260B (VOA)	8270 (Semi-V	metals			Air Bubbles ()
119/14	0731	soil	roll #16 #1	1 400000	ice	-001												7			1
1	0744		#2															X			
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Date: /////p Date:	Time: 1/30 Time:	Relinguish	d by:	Received by:	ufp-	Date Time CluBQ14 0830 Date Time	Rer *	mark	s: Ba	Cd	Cr	C		Fe	PŁ	5 /	۱ ۲	Hy	Se	. Aq	2~1

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.