NM1 - ___30____

LANDFARM CELL BACKGROUND DATA

CELL(S):

__8 and 10___

Larson & Associates, Inc.
Environmental Consultants

November 5, 2014

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

Re: R360 Artesia LLC (NM1-30-0)
Plan 4 – Background Soil Concentrations

Mr. Jones,

This letter transmits Plan 4, which is part of R360 Artesia's (R360) effort to establish background soil concentrations. R360 initiated this discussion with the New Mexico Oil Conservation Division (OCD) to evaluate vadose soils beneath the buffer zone and cell berm north of cells 1 through 4 and to prepare the site for closure.

This plan discusses background soil data for the Artesia Landfarm. The permit requires the establishment of background concentrations for constituents in soils. R360 collected 12 composite samples for background concentrations based on a sample plan approved by the OCD. These data are discussed in the following section.

INITIAL BACKGROUND SAMPLES

R360 submitted the Groundwater Delineation Report to the OCD in November 2013. Included in this report were the results and discussion of the background soils data. R360 retained Larson & Associates, Inc. to collect the background samples. The north side of Cells 5 and 6 were selected for background sample collection with 12 composite samples being collected. Each composite sample consisted of 16 discrete samples that were collected between approximately 1 and 2 feet below ground surface (bgs). The analytes included those listed on the Section 3103 A&B list, which includes among others:

- TRPH (Method 418.1)
- Soluble anions, pH
- Metals
- Volatile Organics
- Semi-volatile Organics
- PCBs

Based on the TRPH and chloride concentrations, it appears the selected background area was slightly impacted over time in most areas. Background composite samples 8 and 10 were the only two sections not to show an impact. This conclusion is based on the TRPH and the chloride concentration (Table 1). Figure 1 presents a

Facility drawing showing the background composite sample locations. Figure 2 presents a detailed drawing showing the individual discrete sample locations for each composite sample.

Table 1. Background Concentrations for TPH and Chlorides

Section No.	Depth	TRPH (mg/kg)	Chloride (mg/kg)
1	1-2 ft	169	240
2	1-2 ft	341	268
3	1-2 ft	356	237
4	1-2 ft	275	1,100
5	1-2 ft	239	183
6	1-2 ft	192	874
7	1-2 ft	390	65.1
8	1-2 ft	<4.78	<5
9	1-2 ft	33.8	<5
10	1-2 ft	<5.02	<5
11	1-2 ft	4.61	457
12	1-2 ft	251	14.8

Background Soil Concentrations

R360 proposes to use the two background samples collected in sections 8 and 10 for the background soil concentrations. R360 reserves the right to collect additional background samples in the future in order to have a larger data pool and better confidence in these values. However, in order to proceed with the removal of soils in the buffer zone, as identified in Plan 1, R360 needs to establish background soil values at this time. Table 2 and 3 provide the background values for Section 8 and 10 samples. Average concentrations are presented for the inorganic species and TRPH in Table 2 and the volatile, semi-volatile and other organics in Table 3. The laboratory report shows the reporting limit (RL) value which is equivalent to the practical quantification limit (PQL). Attachment A presents the analytical report for background samples 8 and 10. Appendix B presents a letter from the analytical laboratory that explains the reporting units.

It is necessary to average the parameter concentrations for the two background samples. This is complicated by the fact that a number of values are reported below the RL (PQL). R360 reviewed the 2009 EPA Guidance Document, Statistical Analysis of Groundwater Data at RCRA Facilities. Chapter 5 of this document discusses how to manage non-detect data. They discuss three methods for statistical evaluation and one method for simple substitution. They recommend the three statistical methods over the simple substitution, but with only two data points these methods are not as useful. R360 will evaluate these methods if more background samples are collected, but with two background samples we prefer to use the simple substitution method at this time. The simple substitution method options include 0, ½ of the detection limit and the detection limit. Since the real value cannot be known, each of these has some bias if used. Of these options, EPA recommends

using ½ of the detection limit for determing background values. R360 believes that due to the low sample number the simple substitution will be appropriate for two data points and recommends using ½ of the detection limit.

R360 used ½ of the detection limit value to calculate the average concentration. The average value is listed as a "less than" value, since the detection value is used. R360 reserves the right to use a different approved method for averaging background concentrations, at a future date, especially if additional background samples are collected. Using the simple substitution method will allow R360 to initiate removal of soil from the buffer and berm area and collect verification samples. R360 will use the higher of the PQL or the background soil concentration (19.15.3615.E.NMAC) in the evaluation of analytical data collected as part of the closure and site evaluation efforts.

Please contact Wayne Crawley with R360 at (281) 873-3205 or me if you have questions.

Sincerely,

LARSON & ASSOCIATES, INC.

Mark J. Larson, P.G.
Sr. Project Manager/President
mark@laenvironmental.com

cc: Wayne Crawley – R360 Environmental Solutions
Midland Office

TABLES

Table 2. Background Soil Concentrations for Inorganic Parameters and TRPH

Sample	Date	Depth (Feet)	TRPH	Cyanide	Chloride	Fluoride	Nitrate-N	Sulfate	pH
Mean Background Concentration:			**<4.90**	**<0.176**	**<5.04**	**<1.08**	**<5.04**	**<11**	**7.60**
PQL			**9.55 - 10.0**	**0.428 - 0.450**	**5.02 - 5.06**	**1.00 - 1.01**	**5.02 - 5.06**	**10.0 - 10.1**	
Section 8	07/15/13	1 - 2	<4.78	<0.180	<5.06	1.16	<5.06	12	7.52
Section 10	07/16/13	1 - 2	<5.02	<0.171	<5.02	<1.00	<5.02	<10.0	7.68

Sample	Date	Depth (Feet)	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese
Mean Background Concentration:			**1.63**	**21.0**	**<0.117**	**4.81**	**1.45**	**5,380**	**2.87**	**48.0**
PQL			**0.983 - 0.995**	**1.97 - 1.99**	**0.298 - 0.295**	**1.97 - 1.99**	**1.97 - 1.99**	**61.4 - 62.2**	**0.295 - 0.298**	**1.97 - 1.99**
Section 8	07/15/13	1 - 2	1.54	19.6	<0.0983	4.57	1.37	5,200	2.82	45.6
Section 10	07/16/13	1 - 2	1.71	22.4	0.136	5.05	1.53	5,560	2.92	50.4

Sample	Date	Depth (Feet)	Mercury	Selenium	Silver	Zinc
Mean Background Concentration:			**<0.016**	**0.579**	**<0.099**	**10.35**
PQL			**0.0373 - 0.0406**	**0.491 - 0.497**	**0.197 - 0.199**	**2.46 - 2.49**
Section 8	07/15/13	1 - 2	<0.0149	0.503	<0.0983	10.1
Section 10	07/16/13	1 - 2	<0.0162	0.654	<0.0995	10.6

Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligram per Kilograms (mg/Kg).

1. <: Not detected at method detection limit
2. TRPH - Total Recoverable Hydrocarbons, Method 418.1
3. For < (ess than) values, 1/2 of the detection value was used for background average calculations

Table 3. Volatile, Semi-Volatile and PCB Concentrations in Background Soil Samples

Sample	Date	Depth feet	Benzene	Toluene	Carbon tetra chloride	1,2-Dichloro ethane	1,1-Dichloro ethylene	Tetrachloro ethylene	Trichloro ethylene	Ethyl benzene	Total Xylenes	Methylene chloride
Mean Background Concentration:			<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.004785
PQL			0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507
Section 8	07/15/13	1 - 2	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.00450
Section 10	07/16/13	1 - 2	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00507

Sample	Date	Depth feet	Chloroform	1,1-Dichloro ethane	Ethylene bromide	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	1,1,2,2-Tetrachloroethane	Vinyl chloride
Mean Background Concentration:			<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095
PQL			0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507	0.00450 - 0.00507
Section 8	07/15/13	1 - 2	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899	<0.000899
Section 10	07/16/13	1 - 2	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101

Sample	Date	Depth feet	1-Methylnaphthalene	2-Methyl naphthalene	Naphthalene	Benzo[a] pyrene	2,3,4,6-Tetrachloro phenol	2,4,5-Trichloro phenol	2,4,6-Trichloro phenol	2,4-Dichloro phenol	2,4-Dimethyl phenol	2,4-Dinitro phenol	2,6-Dichloro phenol
Mean Background Concentration:			<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.01005	<0.0502	<0.01005
PQL			0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.132 - 0.133	0.0266 - 0.0268
Section 8	07/15/13	1 - 2	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.00999	<0.0500	<0.00999
Section 10	07/16/13	1 - 2	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0504	<0.0101

Sample	Date	Depth feet	2-Chloro phenol	2-Methylphenol	2-Nitrophenol	4,6-Dinitro-2-methyl phenol	4-Chloro-3-methyl phenol	4-Methyl phenol	4-Nitro phenol	Pentachloro phenol	Phenol	Total Phenol
Mean Background Concentration:			<0.01005	<0.01005	<0.01005	<0.0302	<0.01005	<0.0201	<0.0502	<0.01005	<0.01005	<0.01005
PQL			0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268	0.0659 - 0.0666	0.0266 - 0.0268	0.0266 - 0.0268	0.132 - 0.133	0.0266 - 0.0268	0.0266 - 0.0268	0.0266 - 0.0268
Section 8	07/15/13	1 - 2	<0.00999	<0.00999	<0.00999	<0.0300	<0.00999	<0.0200	<0.0500	<0.00999	<0.00999	<0.00999
Section 10	07/16/13	1 - 2	<0.0101	<0.0101	<0.0101	<0.0303	<0.0101	<0.0202	<0.0504	<0.0101	<0.0101	<0.0101

Sample	Date	Depth feet	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
Mean Background Concentration:			<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168
PQL			0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336	0.0333 - 0.0336
Section 8	07/15/13	1 - 2	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167	<0.0167
Section 10	07/16/13	1 - 2	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168	<0.0168

Notes: Analysis performed by method SW-846-9056 by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligram per Kilograms (mg/Kg).

1. <: Not detected at method detection limit
2. BDL: Below method detection limit

FIGURES

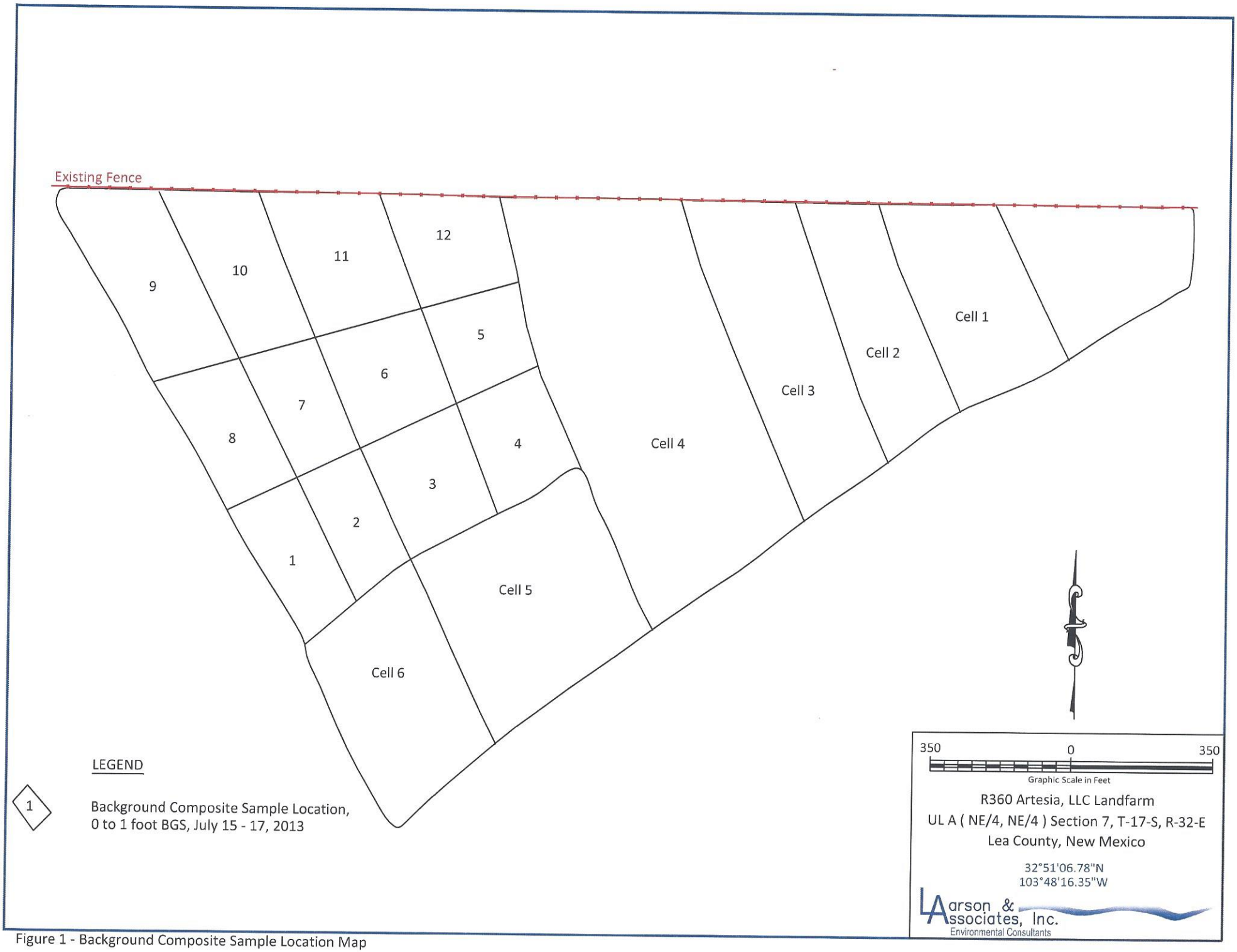

Figure 1 - Background Composite Sample Location Map

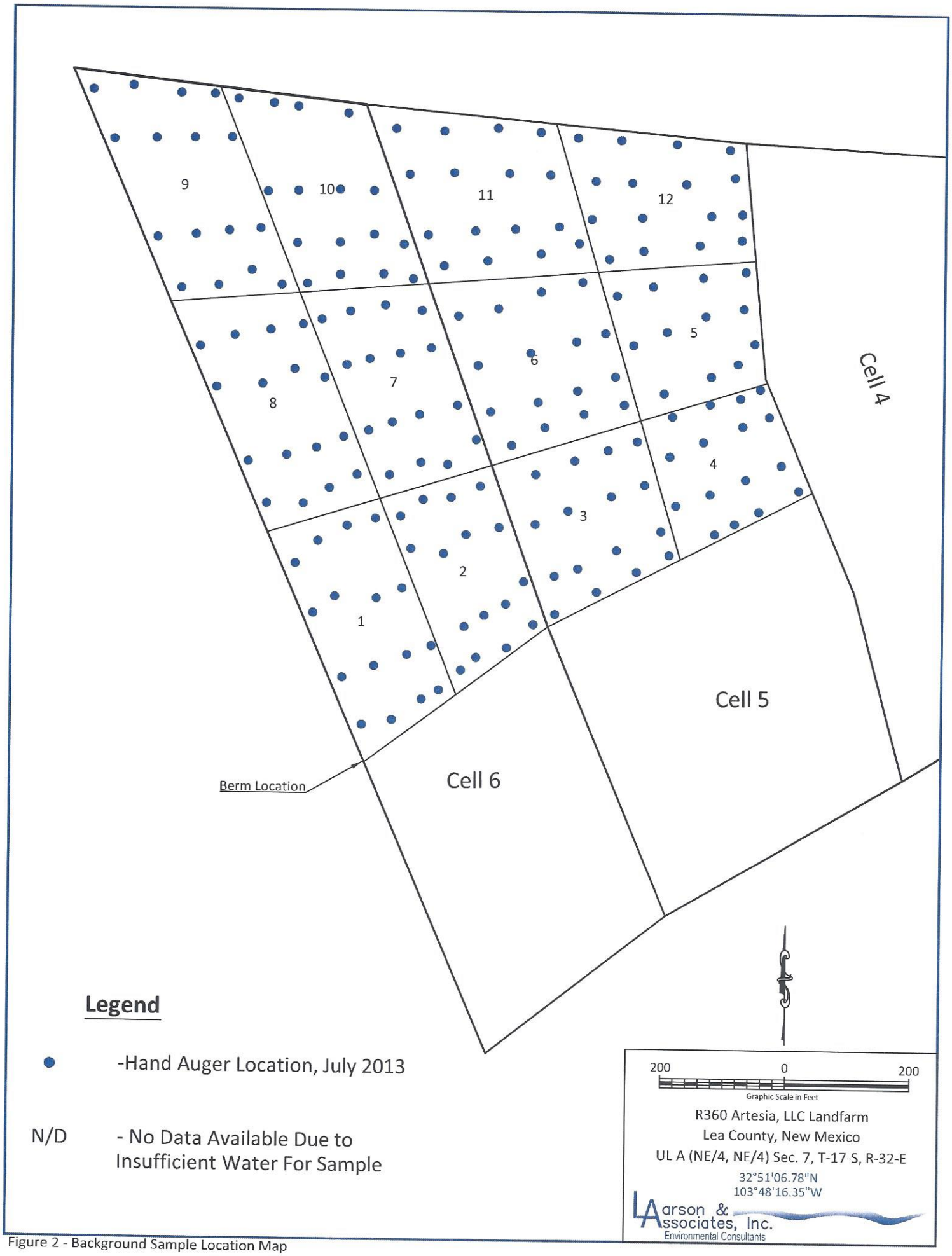

Figure 2 - Background Sample Location Map

ATTACHMENT A

July 25, 2013

Mark Larson
Larson & Associates
507 N. Marienfeld #200
Midland, TX 79701
TEL: (432) 687-0901
FAX (432) 687-0456

Order No.: 1307158

RE: R360 Artesia Landfarm

Dear Mark Larson:

DHL Analytical, Inc. received 12 sample(s) on 7/18/2013 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-13-11

Table of Contents

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 7-17-13 PAGE 1 OF 1
PO #: LAB WORK ORDER #: 1307158
PROJECT LOCATION OR NAME: R360 Landfarm
LAI PROJECT #: 11-0109-10 COLLECTOR:

TRRP report? ☐ Yes ☐ No

TIME ZONE: Time zone/State:

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

per Coty 7/26/13.

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
~~Point~~ Composite #1	01	7-15-13	215	S	3				X			see enclosed List
~~Point~~ 2	02	7-15-13	130									
~~Point~~ 3	03	7-16-13	1145									
~~Point~~ 4	04	7-16-13	230									
~~Point~~ 5	05	7-17-13	900									
~~Point~~ 6	06	7-17-13	1100									
~~Point~~ 7	07	7-15-13	400									
~~Point~~ 8	08	7-16-13	300									
~~Point~~ 9	09	7-16-13	1000									
~~Point~~ 10	10	7-16-13	900									
~~Point~~ 11	11	7-17-13	1200									
~~Point~~ 12	12	7-17-13	1000									

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

TOTAL

RELINQUISHED BY:(Signature)	DATE/TIME 7-17-13 5:30pm	RECEIVED BY: (Signature) Lonestar
RELINQUISHED BY:(Signature) Lonestar	DATE/TIME 7/18/13 8316	RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☐
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 1.1 THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☒ CARRIER BILL # Lonestar
☐ HAND DELIVERED

Lone Star Overnight

WWW.LSO.COM
Questions? Call 800-800-8984

Airbill No. 47376974

47376974

1. To:
Print Name (Person): Jennifer Parker
Phone (Important): 512-388-8222
Company Name: DHL
Street Address (No P.O. Box or P.O. Box Zip Code Deliveries): 2300 Double Creek Dr.
Suite / Floor:
City: Round Rock State: TX Zip: 78664

2. From:
Print Name (Person): [illegible]
Phone (Important): 432-687-0901
Company Name: LARSON & ASSOCIATES
Street Address: 507 NORTH MARIENFELD
Suite / Floor: 200
City: MIDLAND State: TX Zip: 79701

3. Service:
Visit www.lso.com for availability of services to your destination and enjoy added features by creating your shipping label online.

- [X] By 10:30 am Delivery — Check availability at www.lso.com
- [ ] By 8:30 am Delivery (Extra charge, no signature obtained) — Check availability at www.lso.com
- [ ] By 3:00 pm Delivery
- [ ] Ground (next day to most cities)
- [ ] Saturday Delivery (Extra charge, not available on Ground) — Check availability at www.lso.com
- [ ] Other ______

Assumed 10:30 a.m. service unless otherwise noted.

- [ ] Deliver Without Delivery Signature (See Limits of Liability below)

Release Signature

L ____ x W ____ x H ____

4. Package:
Weight: 50
Your Company's Billing Reference Information: 11-0109-10
Ship Date: (mm/dd/yy) 7/17/13

5. Payment:

FOR COURIER USE ONLY
Courier Number: 10385
- [ ] Check here if LSO Supplies are used with Ground Service
Pick-up Location: 1st RD
Date: 7-17
Time: 1638
City Code:
AV

LIMIT OF LIABILITY: We are not responsible for claims in excess of $100 for any reason unless you: 1) declare a greater value (not to exceed $25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 08:30 AM DELIVERIES. PRIORITY SERVICE PACKAGING PROVIDED BY LSO IS NOT INTENDED FOR USE ON GROUND SERVICE. OVERSIZE RATES MAY APPLY. DELIVERY COMMITMENTS MAY VARY, ADDITIONAL FEES MAY APPLY.

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name Larson & Associates

Date Received: 7/18/2013

Work Order Number 1307158

Received by JB

Checklist completed by: Signature 7/18/2013 Date

Reviewed by Initials 7/18/2013 Date

Carrier name LoneStar

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.1 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CASE NARRATIVE

Sample was analyzed using the methods outlined in the following references:

Method SW8260C - Volatile Organics
Method SW8270D - Semivolatiles Organics (1-Methylnapthalene is not NELAC Certified)
Method SW8270D - PCB Analysis
Method SW6020A - Metals Analysis
Method SW7471B - Mercury Analysis
Method E300 - Anions Analysis
Method E418.1 - TRPH Analysis (this parameter not NELAC Certified)
Method SW9014 - Cyanide Analysis
Method SW9045D - pH of a Soil (corrosivity)
Method D2216 - Percent Moisture

LOG IN

The samples were received and log-in performed on 7/18/2013. A total of 12 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

ANIONS ANALYSIS

For Anions Analysis, the recovery of Chloride for the Matrix Spike and Matrix Spike Duplicate (1307158-02 MS/MSD) was slightly below the method control limits. These are flagged accordingly in the QC Summary Report. This anion is within method control limits in the associated LCS. The reference sample selected for the QC Sample was from this work order. No further corrective action was taken.

TRPH ANALYSIS

For TRPH Analysis, the recoveries and RPD of the Matrix Spike and Matrix Spike Duplicate (1307158-01 MS/MSD) were above the method control limits. These are flagged accordingly in the QC Summary Report. The associated LCS is within method control limits. The reference sample selected for the QC Sample was from this workorder. No further corrective action was taken.

As per the TCEQ-NELAP accreditation requirement the following must be noted: The TCEQ guidance on the use of Total Petroleum Hydrocarbons (all methodologies) recommends a modification to the method. That modification includes collecting the sample using an open-bore coring device and extruding the cored sample into a volatile organic analysis (VOA) vial with a polytetraflouroethylene-lined (PTFE-lined) septum seal. If this modification is not utilized the results of samples collected in 4 oz containers for TPH components may be compromised. The client has been notified and has

requested the Laboratory to proceed with analysis.

METALS ANALYSIS

For Metals Analysis, the recovery of Iron for the Matrix Spike and Matrix Spike Duplicate (1307158-08 MS/MSD) was below of the method control limits. These are flagged accordingly in the QC Summary Report. These compounds are within method control limits in the associated LCS. The reference sample selected for the QC Sample was from this workorder. No further corrective action was taken.

For Metals Analysis, the recoveries of Iron and Manganese for the Post Digestion Spike (1307158-08 PDS) were above the method control limits. These are flagged accordingly in the QC Summary Report. These compounds are within method control limits in the associated Serial Dilution. The reference sample selected for the QC Sample was from this workorder. No further corrective action was taken.

PCB ANALYSIS

For PCB Analysis, several samples were diluted due to nature of matrix.

For PCB Analysis, the recoveries of surrogates 2-Fluorobiphenyl and 4-Terphenyl-d14 for Sample Composite #6 were above the method control limits, due to nature of matrix. These are flagged accordingly in the Analytical Data Report. No further corrective action was taken.

SEMIVOLATILES ANALYSIS

For Semivolatiles Analysis, several samples were diluted due to nature of matrix.

For Semivolatiles Analysis, the recoveries of the surrogates for Sample Composite #6 were above the method control limits, due to nature of matrix and confirmed by re-analysis. These are flagged accordingly in the Analytical Data Report. No further corrective action was taken.

VOLATILES ANALYSIS

As per the TCEQ-NELAP accreditation requirement the following must be noted: The TCEQ guidance on the use of EPA SW-846 Method 5035 recommends a modification to the method. That modification includes collecting the sample using an open-bore coring device and extruding the cored sample into a volatile organic analysis (VOA) vial with a polytetraflouroethylene-lined (PTFE-lined) septum seal. If this modification is not utilized the results of samples collected in 4 oz containers for low level Volatile components may be compromised. The client has been notified and has requested the Laboratory to proceed with analysis.

DHL Analytical, Inc.

Date: *26-Jul-13*

CLIENT: Larson & Associates
Project: R360 Artesia Landfarm
Lab Order: 1307158

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1307158-01	Composite #1		07/15/13 02:15 PM	7/18/2013
1307158-02	Composite #2		07/15/13 01:30 PM	7/18/2013
1307158-03	Composite #3		07/16/13 11:45 AM	7/18/2013
1307158-04	Composite #4		07/16/13 02:30 PM	7/18/2013
1307158-05	Composite #5		07/17/13 09:00 AM	7/18/2013
1307158-06	Composite #6		07/17/13 11:00 AM	7/18/2013
1307158-07	Composite #7		07/15/13 04:00 PM	7/18/2013
1307158-08	Composite #8		07/15/13 03:00 PM	7/18/2013
1307158-09	Composite #9		07/16/13 10:00 AM	7/18/2013
1307158-10	Composite #10		07/16/13 09:00 AM	7/18/2013
1307158-11	Composite #11		07/17/13 12:00 PM	7/18/2013
1307158-12	Composite #12		07/17/13 10:00 AM	7/18/2013

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1307158-01A	Composite #1	07/15/13 02:15 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-01B	Composite #1	07/15/13 02:15 PM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #1	07/15/13 02:15 PM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #1	07/15/13 02:15 PM	Soil	SW9045C	pH Preparation	07/22/13 04:00 PM	58515
	Composite #1	07/15/13 02:15 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-01C	Composite #1	07/15/13 02:15 PM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #1	07/15/13 02:15 PM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #1	07/15/13 02:15 PM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #1	07/15/13 02:15 PM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #1	07/15/13 02:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #1	07/15/13 02:15 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-02A	Composite #2	07/15/13 01:30 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-02B	Composite #2	07/15/13 01:30 PM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #2	07/15/13 01:30 PM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #2	07/15/13 01:30 PM	Soil	SW9045C	pH Preparation	07/22/13 04:00 PM	58515
	Composite #2	07/15/13 01:30 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-02C	Composite #2	07/15/13 01:30 PM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #2	07/15/13 01:30 PM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #2	07/15/13 01:30 PM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #2	07/15/13 01:30 PM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #2	07/15/13 01:30 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #2	07/15/13 01:30 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-03A	Composite #3	07/16/13 11:45 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-03B	Composite #3	07/16/13 11:45 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #3	07/16/13 11:45 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #3	07/16/13 11:45 AM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #3	07/16/13 11:45 AM	Soil	SW9045C	pH Preparation	07/23/13 08:57 AM	58520
	Composite #3	07/16/13 11:45 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1307158-03C	Composite #3	07/16/13 11:45 AM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #3	07/16/13 11:45 AM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #3	07/16/13 11:45 AM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #3	07/16/13 11:45 AM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #3	07/16/13 11:45 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #3	07/16/13 11:45 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-04A	Composite #4	07/16/13 02:30 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-04B	Composite #4	07/16/13 02:30 PM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #4	07/16/13 02:30 PM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #4	07/16/13 02:30 PM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #4	07/16/13 02:30 PM	Soil	SW9045C	pH Preparation	07/23/13 08:57 AM	58520
	Composite #4	07/16/13 02:30 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-04C	Composite #4	07/16/13 02:30 PM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #4	07/16/13 02:30 PM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #4	07/16/13 02:30 PM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #4	07/16/13 02:30 PM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #4	07/16/13 02:30 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #4	07/16/13 02:30 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-05A	Composite #5	07/17/13 09:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-05B	Composite #5	07/17/13 09:00 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #5	07/17/13 09:00 AM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #5	07/17/13 09:00 AM	Soil	SW9045C	pH Preparation	07/23/13 08:57 AM	58520
	Composite #5	07/17/13 09:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-05C	Composite #5	07/17/13 09:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #5	07/17/13 09:00 AM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #5	07/17/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #5	07/17/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #5	07/17/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1307158-05C	Composite #5	07/17/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-06A	Composite #6	07/17/13 11:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-06B	Composite #6	07/17/13 11:00 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #6	07/17/13 11:00 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #6	07/17/13 11:00 AM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #6	07/17/13 11:00 AM	Soil	SW9045C	pH Preparation	07/23/13 08:57 AM	58520
	Composite #6	07/17/13 11:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-06C	Composite #6	07/17/13 11:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #6	07/17/13 11:00 AM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #6	07/17/13 11:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #6	07/17/13 11:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #6	07/17/13 11:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #6	07/17/13 11:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-07A	Composite #7	07/15/13 04:00 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-07B	Composite #7	07/15/13 04:00 PM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #7	07/15/13 04:00 PM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #7	07/15/13 04:00 PM	Soil	SW9045C	pH Preparation	07/22/13 04:00 PM	58515
	Composite #7	07/15/13 04:00 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-07C	Composite #7	07/15/13 04:00 PM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #7	07/15/13 04:00 PM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #7	07/15/13 04:00 PM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #7	07/15/13 04:00 PM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #7	07/15/13 04:00 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #7	07/15/13 04:00 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-08A	Composite #8	07/15/13 03:00 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-08B	Composite #8	07/15/13 03:00 PM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #8	07/15/13 03:00 PM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #8	07/15/13 03:00 PM	Soil	SW9045C	pH Preparation	07/22/13 04:00 PM	58515

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Client: Larson & Associates
Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1307158-08B	Composite #8	07/15/13 03:00 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-08C	Composite #8	07/15/13 03:00 PM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #8	07/15/13 03:00 PM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #8	07/15/13 03:00 PM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #8	07/15/13 03:00 PM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #8	07/15/13 03:00 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #8	07/15/13 03:00 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-09A	Composite #9	07/16/13 10:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-09B	Composite #9	07/16/13 10:00 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #9	07/16/13 10:00 AM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #9	07/16/13 10:00 AM	Soil	SW9045C	pH Preparation	07/23/13 08:57 AM	58520
	Composite #9	07/16/13 10:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-09C	Composite #9	07/16/13 10:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #9	07/16/13 10:00 AM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #9	07/16/13 10:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #9	07/16/13 10:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #9	07/16/13 10:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #9	07/16/13 10:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-10A	Composite #10	07/16/13 09:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-10B	Composite #10	07/16/13 09:00 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #10	07/16/13 09:00 AM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #10	07/16/13 09:00 AM	Soil	SW9045C	pH Preparation	07/23/13 08:57 AM	58520
	Composite #10	07/16/13 09:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-10C	Composite #10	07/16/13 09:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #10	07/16/13 09:00 AM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #10	07/16/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #10	07/16/13 09:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #10	07/16/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1307158-10C	Composite #10	07/16/13 09:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-11A	Composite #11	07/17/13 12:00 PM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-11B	Composite #11	07/17/13 12:00 PM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #11	07/17/13 12:00 PM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #11	07/17/13 12:00 PM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #11	07/17/13 12:00 PM	Soil	SW9045C	pH Preparation	07/23/13 08:57 AM	58520
	Composite #11	07/17/13 12:00 PM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-11C	Composite #11	07/17/13 12:00 PM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #11	07/17/13 12:00 PM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #11	07/17/13 12:00 PM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #11	07/17/13 12:00 PM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #11	07/17/13 12:00 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #11	07/17/13 12:00 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
1307158-12A	Composite #12	07/17/13 10:00 AM	Soil	SW5030A	Purge and Trap Soils GC/MS	07/18/13 12:17 PM	58451
1307158-12B	Composite #12	07/17/13 10:00 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #12	07/17/13 10:00 AM	Soil	E300	Anion Prep	07/22/13 02:08 PM	58513
	Composite #12	07/17/13 10:00 AM	Soil	SW9010C	Cyanide Soil Prep	07/24/13 10:32 AM	58502
	Composite #12	07/17/13 10:00 AM	Soil	SW9045C	pH Preparation	07/23/13 08:57 AM	58520
	Composite #12	07/17/13 10:00 AM	Soil	SW3550B	Soil Prep Sonication: TRPH	07/22/13 11:14 AM	58511
1307158-12C	Composite #12	07/17/13 10:00 AM	Soil	SW7471A	Mercury Soil Prep, Total	07/19/13 09:00 AM	58449
	Composite #12	07/17/13 10:00 AM	Soil	D2216	Moisture Preparation	07/23/13 04:24 PM	58534
	Composite #12	07/17/13 10:00 AM	Soil	SW3550C	Soil Prep Sonication: BNA	07/22/13 08:42 AM	58493
	Composite #12	07/17/13 10:00 AM	Soil	SW3550C	Soil Prep Sonication: PCB	07/23/13 01:51 PM	58538
	Composite #12	07/17/13 10:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448
	Composite #12	07/17/13 10:00 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	07/19/13 08:40 AM	58448

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1307158-01A	Composite #1	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 02:46 PM	GCMS1_130718A
1307158-01B	Composite #1	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 09:57 AM	IC2_130723A
	Composite #1	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:10 PM	UV/VIS_2_130724B
	Composite #1	Soil	SW9045D	pH of Solid (Corrosivity)	58515	1	07/22/13	WC_130722A
	Composite #1	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-01C	Composite #1	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/23/13 10:03 PM	GCMS8_130723A
	Composite #1	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #1	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 04:26 PM	GCMS9_130723A
	Composite #1	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 02:35 PM	CETAC_HG_130722C
	Composite #1	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:05 PM	ICP-MS3_130719B
	Composite #1	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	50	07/22/13 02:15 PM	ICP-MS2_130722A
1307158-02A	Composite #2	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 03:17 PM	GCMS1_130718A
1307158-02B	Composite #2	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 10:16 AM	IC2_130723A
	Composite #2	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:11 PM	UV/VIS_2_130724B
	Composite #2	Soil	SW9045D	pH of Solid (Corrosivity)	58515	1	07/22/13	WC_130722A
	Composite #2	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-02C	Composite #2	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/23/13 10:34 PM	GCMS8_130723A
	Composite #2	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #2	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 04:50 PM	GCMS9_130723A
	Composite #2	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 02:38 PM	CETAC_HG_130722C
	Composite #2	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	50	07/22/13 02:20 PM	ICP-MS2_130722A
	Composite #2	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:11 PM	ICP-MS3_130719B
1307158-03A	Composite #3	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 03:50 PM	GCMS1_130718A
1307158-03B	Composite #3	Soil	E300	Anions by IC method - Soil	58513	100	07/23/13 01:43 PM	IC2_130723A
	Composite #3	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 10:30 AM	IC2_130723A
	Composite #3	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:13 PM	UV/VIS_2_130724B
	Composite #3	Soil	SW9045D	pH of Solid (Corrosivity)	58520	1	07/23/13 01:35 PM	PH_130723A
	Composite #3	Soil	E418.1	TRPH	58511	10	07/22/13 03:18 PM	IR207_130722A

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1307158-03C	Composite #3	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/23/13 11:05 PM	GCMS8_130723A
	Composite #3	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #3	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 05:13 PM	GCMS9_130723A
	Composite #3	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:10 PM	CETAC_HG_130722C
	Composite #3	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:17 PM	ICP-MS3_130719B
	Composite #3	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	50	07/22/13 02:26 PM	ICP-MS2_130722A
1307158-04A	Composite #4	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 04:21 PM	GCMS1_130718A
1307158-04B	Composite #4	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 10:45 AM	IC2_130723A
	Composite #4	Soil	E300	Anions by IC method - Soil	58513	10	07/23/13 02:42 PM	IC2_130723A
	Composite #4	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:13 PM	UV/VIS_2_130724B
	Composite #4	Soil	SW9045D	pH of Solid (Corrosivity)	58520	1	07/23/13 01:35 PM	PH_130723A
	Composite #4	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-04C	Composite #4	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/23/13 11:35 PM	GCMS8_130723A
	Composite #4	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #4	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 05:36 PM	GCMS9_130723A
	Composite #4	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:12 PM	CETAC_HG_130722C
	Composite #4	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	50	07/22/13 02:32 PM	ICP-MS2_130722A
	Composite #4	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:23 PM	ICP-MS3_130719B
1307158-05A	Composite #5	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 04:52 PM	GCMS1_130718A
1307158-05B	Composite #5	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 11:00 AM	IC2_130723A
	Composite #5	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:13 PM	UV/VIS_2_130724B
	Composite #5	Soil	SW9045D	pH of Solid (Corrosivity)	58520	1	07/23/13 01:35 PM	PH_130723A
	Composite #5	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-05C	Composite #5	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/24/13 12:06 AM	GCMS8_130723A
	Composite #5	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #5	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 05:59 PM	GCMS9_130723A
	Composite #5	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:14 PM	CETAC_HG_130722C
	Composite #5	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	50	07/22/13 02:38 PM	ICP-MS2_130722A

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1307158-05C	Composite #5	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:29 PM	ICP-MS3_130719B
1307158-06A	Composite #6	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 05:23 PM	GCMS1_130718A
1307158-06B	Composite #6	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 12:00 PM	IC2_130723A
	Composite #6	Soil	E300	Anions by IC method - Soil	58513	10	07/23/13 02:56 PM	IC2_130723A
	Composite #6	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:13 PM	UV/VIS_2_130724B
	Composite #6	Soil	SW9045D	pH of Solid (Corrosivity)	58520	1	07/23/13 01:35 PM	PH_130723A
	Composite #6	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-06C	Composite #6	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/24/13 12:37 AM	GCMS8_130723A
	Composite #6	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #6	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 06:22 PM	GCMS9_130723A
	Composite #6	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:17 PM	CETAC_HG_130722C
	Composite #6	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:35 PM	ICP-MS3_130719B
	Composite #6	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	25	07/22/13 02:44 PM	ICP-MS2_130722A
1307158-07A	Composite #7	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 05:56 PM	GCMS1_130718A
1307158-07B	Composite #7	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 12:15 PM	IC2_130723A
	Composite #7	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:13 PM	UV/VIS_2_130724B
	Composite #7	Soil	SW9045D	pH of Solid (Corrosivity)	58515	1	07/22/13	WC_130722A
	Composite #7	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-07C	Composite #7	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/24/13 01:08 AM	GCMS8_130723A
	Composite #7	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #7	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 06:45 PM	GCMS9_130723A
	Composite #7	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:19 PM	CETAC_HG_130722C
	Composite #7	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	25	07/22/13 02:50 PM	ICP-MS2_130722A
	Composite #7	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:41 PM	ICP-MS3_130719B
1307158-08A	Composite #8	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 06:27 PM	GCMS1_130718A
1307158-08B	Composite #8	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 12:30 PM	IC2_130723A
	Composite #8	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:16 PM	UV/VIS_2_130724B
	Composite #8	Soil	SW9045D	pH of Solid (Corrosivity)	58515	1	07/22/13	WC_130722A

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1307158-08B	Composite #8	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-08C	Composite #8	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	1	07/23/13 03:51 PM	GCMS8_130723A
	Composite #8	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #8	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	1	07/23/13 12:35 PM	GCMS9_130723A
	Composite #8	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 02:19 PM	CETAC_HG_130722C
	Composite #8	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	25	07/22/13 02:03 PM	ICP-MS2_130722A
	Composite #8	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 08:53 PM	ICP-MS3_130719B
1307158-09A	Composite #9	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 06:57 PM	GCMS1_130718A
1307158-09B	Composite #9	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 12:44 PM	IC2_130723A
	Composite #9	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:16 PM	UV/VIS_2_130724B
	Composite #9	Soil	SW9045D	pH of Solid (Corrosivity)	58520	1	07/23/13 01:35 PM	PH_130723A
	Composite #9	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-09C	Composite #9	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	1	07/23/13 04:22 PM	GCMS8_130723A
	Composite #9	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #9	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	1	07/23/13 12:58 PM	GCMS9_130723A
	Composite #9	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:21 PM	CETAC_HG_130722C
	Composite #9	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:47 PM	ICP-MS3_130719B
	Composite #9	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	50	07/22/13 02:55 PM	ICP-MS2_130722A
1307158-10A	Composite #10	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 07:28 PM	GCMS1_130718A
1307158-10B	Composite #10	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 12:59 PM	IC2_130723A
	Composite #10	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:16 PM	UV/VIS_2_130724B
	Composite #10	Soil	SW9045D	pH of Solid (Corrosivity)	58520	1	07/23/13 01:35 PM	PH_130723A
	Composite #10	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-10C	Composite #10	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	1	07/23/13 04:53 PM	GCMS8_130723A
	Composite #10	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #10	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	1	07/23/13 01:22 PM	GCMS9_130723A
	Composite #10	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:23 PM	CETAC_HG_130722C
	Composite #10	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 09:53 PM	ICP-MS3_130719B

Lab Order: 1307158
Client: Larson & Associates
Project: R360 Artesia Landfarm

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1307158-10C	Composite #10	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	25	07/22/13 03:01 PM	ICP-MS2_130722A
1307158-11A	Composite #11	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 08:00 PM	GCMS1_130718A
1307158-11B	Composite #11	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 01:13 PM	IC2_130723A
	Composite #11	Soil	E300	Anions by IC method - Soil	58513	10	07/23/13 03:11 PM	IC2_130723A
	Composite #11	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:16 PM	UV/VIS_2_130724B
	Composite #11	Soil	SW9045D	pH of Solid (Corrosivity)	58520	1	07/23/13 01:35 PM	PH_130723A
	Composite #11	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-11C	Composite #11	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/24/13 01:39 AM	GCMS8_130723A
	Composite #11	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #11	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 07:09 PM	GCMS9_130723A
	Composite #11	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:25 PM	CETAC_HG_130722C
	Composite #11	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	25	07/22/13 12:59 PM	ICP-MS2_130722A
	Composite #11	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 11:17 PM	ICP-MS3_130719B
1307158-12A	Composite #12	Soil	SW8260C	8260 Soil Volatiles by GC/MS	58451	1	07/18/13 08:30 PM	GCMS1_130718A
1307158-12B	Composite #12	Soil	E300	Anions by IC method - Soil	58513	10	07/23/13 03:26 PM	IC2_130723A
	Composite #12	Soil	E300	Anions by IC method - Soil	58513	1	07/23/13 01:28 PM	IC2_130723A
	Composite #12	Soil	SW9014	Cyanide - Solid Sample	58502	1	07/24/13 05:17 PM	UV/VIS_2_130724B
	Composite #12	Soil	SW9045D	pH of Solid (Corrosivity)	58520	1	07/23/13 01:35 PM	PH_130723A
	Composite #12	Soil	E418.1	TRPH	58511	1	07/22/13 03:18 PM	IR207_130722A
1307158-12C	Composite #12	Soil	SW8270D	PCB by GC/MS - Soil/Solid	58538	5	07/24/13 02:10 AM	GCMS8_130723A
	Composite #12	Soil	D2216	Percent Moisture	58534	1	07/24/13 08:50 AM	PMOIST_130723A
	Composite #12	Soil	SW8270D	Semivolatiles by GC/MS - Soil	58493	5	07/23/13 07:32 PM	GCMS9_130723A
	Composite #12	Soil	SW7471B	Total Mercury: Soil/Solid	58449	1	07/22/13 03:27 PM	CETAC_HG_130722C
	Composite #12	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	5	07/19/13 11:23 PM	ICP-MS3_130719B
	Composite #12	Soil	SW6020A	Trace Metals: ICP-MS - Solid	58448	25	07/22/13 01:05 PM	ICP-MS2_130722A

DHL Analytical, Inc.

Date: *26-Jul-13*

CLIENT:	Larson & Associates	**Client Sample ID:**	Composite #8
Project:	R360 Artesia Landfarm	**Lab ID:**	1307158-08
Project No:	11-0109-10	**Collection Date:**	07/15/13 03:00 PM
Lab Order:	1307158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		**SW7471B**					Analyst: **LM**
Mercury	ND	0.0149	0.0373		mg/Kg-dry	1	07/22/13 02:19 PM
TRACE METALS: ICP-MS - SOLID		**SW6020A**					Analyst: **SW**
Arsenic	1.54	0.491	0.983		mg/Kg-dry	5	07/19/13 08:53 PM
Barium	19.6	0.491	1.97		mg/Kg-dry	5	07/19/13 08:53 PM
Cadmium	ND	0.0983	0.295		mg/Kg-dry	5	07/19/13 08:53 PM
Chromium	4.57	0.491	1.97		mg/Kg-dry	5	07/19/13 08:53 PM
Copper	1.37	0.491	1.97	J	mg/Kg-dry	5	07/19/13 08:53 PM
Iron	5200	61.4	61.4		mg/Kg-dry	25	07/22/13 02:03 PM
Lead	2.82	0.0983	0.295		mg/Kg-dry	5	07/19/13 08:53 PM
Manganese	45.6	0.491	1.97		mg/Kg-dry	5	07/19/13 08:53 PM
Selenium	0.503	0.147	0.491		mg/Kg-dry	5	07/19/13 08:53 PM
Silver	ND	0.0983	0.197		mg/Kg-dry	5	07/19/13 08:53 PM
Zinc	10.1	0.983	2.46		mg/Kg-dry	5	07/19/13 08:53 PM
SEMIVOLATILES BY GC/MS - SOIL		**SW8270D**					Analyst: **CZ**
1-Methylnaphthalene	ND	0.00999	0.0266	N	mg/Kg-dry	1	07/23/13 12:35 PM
2-Methylnaphthalene	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
Naphthalene	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
Benzo[a]pyrene	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2,3,4,6-Tetrachlorophenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2,4,5-Trichlorophenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2,4,6-Trichlorophenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2,4-Dichlorophenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2,4-Dimethylphenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2,4-Dinitrophenol	ND	0.0500	0.132		mg/Kg-dry	1	07/23/13 12:35 PM
2,6-Dichlorophenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2-Chlorophenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2-Methylphenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
2-Nitrophenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
4,6-Dinitro-2-methylphenol	ND	0.0300	0.0659		mg/Kg-dry	1	07/23/13 12:35 PM
4-Chloro-3-methylphenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
4-Methylphenol	ND	0.0200	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
4-Nitrophenol	ND	0.0500	0.132		mg/Kg-dry	1	07/23/13 12:35 PM
Pentachlorophenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
Phenol	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
Total Phenol (Calculated)	ND	0.00999	0.0266		mg/Kg-dry	1	07/23/13 12:35 PM
Surr: 2,4,6-Tribromophenol	80.0	0	45-126		%REC	1	07/23/13 12:35 PM
Surr: 2-Fluorobiphenyl	95.0	0	60-125		%REC	1	07/23/13 12:35 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *26-Jul-13*

CLIENT:	Larson & Associates	**Client Sample ID:**	Composite #8
Project:	R360 Artesia Landfarm	**Lab ID:**	1307158-08
Project No:	11-0109-10	**Collection Date:**	07/15/13 03:00 PM
Lab Order:	1307158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		**SW8270D**					Analyst: **CZ**
Surr: 2-Fluorophenol	99.0	0	37-125		%REC	1	07/23/13 12:35 PM
Surr: 4-Terphenyl-d14	96.0	0	45-125		%REC	1	07/23/13 12:35 PM
Surr: Nitrobenzene-d5	87.0	0	45-125		%REC	1	07/23/13 12:35 PM
Surr: Phenol-d5	81.0	0	40-125		%REC	1	07/23/13 12:35 PM
PCB BY GC/MS - SOIL/SOLID		**SW8270D**					Analyst: **CZ**
Aroclor 1016	ND	0.0167	0.0333		mg/Kg-dry	1	07/23/13 03:51 PM
Aroclor 1221	ND	0.0167	0.0333		mg/Kg-dry	1	07/23/13 03:51 PM
Aroclor 1232	ND	0.0167	0.0333		mg/Kg-dry	1	07/23/13 03:51 PM
Aroclor 1242	ND	0.0167	0.0333		mg/Kg-dry	1	07/23/13 03:51 PM
Aroclor 1248	ND	0.0167	0.0333		mg/Kg-dry	1	07/23/13 03:51 PM
Aroclor 1254	ND	0.0167	0.0333		mg/Kg-dry	1	07/23/13 03:51 PM
Aroclor 1260	ND	0.0167	0.0333		mg/Kg-dry	1	07/23/13 03:51 PM
Surr: 2-Fluorobiphenyl	83.2	0	43-125		%REC	1	07/23/13 03:51 PM
Surr: 4-Terphenyl-d14	105	0	32-125		%REC	1	07/23/13 03:51 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **DEW**
Benzene	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Toluene	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Carbon tetrachloride	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
1,2-Dichloroethane	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
1,1-Dichloroethylene	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Tetrachloroethylene	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Trichloroethylene	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Ethylbenzene	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Total Xylenes	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Methylene chloride	ND	0.00450	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Chloroform	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
1,1-Dichloroethane	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Ethylene bromide	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
1,1,1-Trichloroethane	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
1,1,2-Trichloroethane	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
1,1,2,2-Tetrachloroethane	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Vinyl chloride	ND	0.000899	0.00450		mg/Kg-dry	1	07/18/13 06:27 PM
Surr: 1,2-Dichloroethane-d4	105	0	52-149		%REC	1	07/18/13 06:27 PM
Surr: 4-Bromofluorobenzene	100	0	84-118		%REC	1	07/18/13 06:27 PM
Surr: Dibromofluoromethane	106	0	65-135		%REC	1	07/18/13 06:27 PM
Surr: Toluene-d8	95.8	0	84-116		%REC	1	07/18/13 06:27 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *26-Jul-13*

CLIENT:	Larson & Associates	**Client Sample ID:**	Composite #8
Project:	R360 Artesia Landfarm	**Lab ID:**	1307158-08
Project No:	11-0109-10	**Collection Date:**	07/15/13 03:00 PM
Lab Order:	1307158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		**E418.1**					Analyst: **JCG**
Petroleum Hydrocarbons, TR	ND	4.78	9.55	N	mg/Kg-dry	1	07/22/13 03:18 PM
CYANIDE - SOLID SAMPLE		**SW9014**					Analyst: **JCG**
Cyanide, Total	ND	0.180	0.450		mg/Kg-dry	1	07/24/13 05:16 PM
ANIONS BY IC METHOD - SOIL		**E300**					Analyst: **JBC**
Chloride	ND	5.06	5.06		mg/Kg-dry	1	07/23/13 12:30 PM
Fluoride	1.16	1.01	1.01		mg/Kg-dry	1	07/23/13 12:30 PM
Nitrate-N	ND	5.06	5.06		mg/Kg-dry	1	07/23/13 12:30 PM
Sulfate	12.0	10.1	10.1		mg/Kg-dry	1	07/23/13 12:30 PM
PH OF SOLID (CORROSIVITY)		**SW9045D**					Analyst: **JCG**
pH	7.52	0	0		pH Units@21.2℃	1	07/22/13
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	1.23	0	0		WT%	1	07/24/13 08:50 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
N	Parameter not NELAC certified
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *26-Jul-13*

CLIENT:	Larson & Associates	**Client Sample ID:**	Composite #10
Project:	R360 Artesia Landfarm	**Lab ID:**	1307158-10
Project No:	11-0109-10	**Collection Date:**	07/16/13 09:00 AM
Lab Order:	1307158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY: SOIL/SOLID		**SW7471B**					Analyst: **LM**
Mercury	ND	0.0162	0.0406		mg/Kg-dry	1	07/22/13 03:23 PM
TRACE METALS: ICP-MS - SOLID		**SW6020A**					Analyst: **SW**
Arsenic	1.71	0.497	0.995		mg/Kg-dry	5	07/19/13 09:53 PM
Barium	22.4	0.497	1.99		mg/Kg-dry	5	07/19/13 09:53 PM
Cadmium	0.136	0.0995	0.298	J	mg/Kg-dry	5	07/19/13 09:53 PM
Chromium	5.05	0.497	1.99		mg/Kg-dry	5	07/19/13 09:53 PM
Copper	1.53	0.497	1.99	J	mg/Kg-dry	5	07/19/13 09:53 PM
Iron	5560	62.2	62.2		mg/Kg-dry	25	07/22/13 03:01 PM
Lead	2.92	0.0995	0.298		mg/Kg-dry	5	07/19/13 09:53 PM
Manganese	50.4	0.497	1.99		mg/Kg-dry	5	07/19/13 09:53 PM
Selenium	0.654	0.149	0.497		mg/Kg-dry	5	07/19/13 09:53 PM
Silver	ND	0.0995	0.199		mg/Kg-dry	5	07/19/13 09:53 PM
Zinc	10.6	0.995	2.49		mg/Kg-dry	5	07/19/13 09:53 PM
SEMIVOLATILES BY GC/MS - SOIL		**SW8270D**					Analyst: **CZ**
1-Methylnaphthalene	ND	0.0101	0.0268	N	mg/Kg-dry	1	07/23/13 01:22 PM
2-Methylnaphthalene	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
Naphthalene	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
Benzo[a]pyrene	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2,3,4,6-Tetrachlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2,4,5-Trichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2,4,6-Trichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2,4-Dichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2,4-Dimethylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2,4-Dinitrophenol	ND	0.0504	0.133		mg/Kg-dry	1	07/23/13 01:22 PM
2,6-Dichlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2-Chlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2-Methylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
2-Nitrophenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
4,6-Dinitro-2-methylphenol	ND	0.0303	0.0666		mg/Kg-dry	1	07/23/13 01:22 PM
4-Chloro-3-methylphenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
4-Methylphenol	ND	0.0202	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
4-Nitrophenol	ND	0.0504	0.133		mg/Kg-dry	1	07/23/13 01:22 PM
Pentachlorophenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
Phenol	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
Total Phenol (Calculated)	ND	0.0101	0.0268		mg/Kg-dry	1	07/23/13 01:22 PM
Surr: 2,4,6-Tribromophenol	80.0	0	45-126		%REC	1	07/23/13 01:22 PM
Surr: 2-Fluorobiphenyl	92.0	0	60-125		%REC	1	07/23/13 01:22 PM

Qualifiers:

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C	Sample Result or QC discussed in the Case Narrative
E	TPH pattern not Gas or Diesel Range Pattern
MDL	Method Detection Limit
RL	Reporting Limit
N	Parameter not NELAC certified
B	Analyte detected in the associated Method Blank
DF	Dilution Factor
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
S	Spike Recovery outside control limits

DHL Analytical, Inc.

Date: *26-Jul-13*

CLIENT:	Larson & Associates	**Client Sample ID:**	Composite #10
Project:	R360 Artesia Landfarm	**Lab ID:**	1307158-10
Project No:	11-0109-10	**Collection Date:**	07/16/13 09:00 AM
Lab Order:	1307158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		**SW8270D**					Analyst: **CZ**
Surr: 2-Fluorophenol	96.0	0	37-125		%REC	1	07/23/13 01:22 PM
Surr: 4-Terphenyl-d14	93.0	0	45-125		%REC	1	07/23/13 01:22 PM
Surr: Nitrobenzene-d5	84.0	0	45-125		%REC	1	07/23/13 01:22 PM
Surr: Phenol-d5	80.0	0	40-125		%REC	1	07/23/13 01:22 PM
PCB BY GC/MS - SOIL/SOLID		**SW8270D**					Analyst: **CZ**
Aroclor 1016	ND	0.0168	0.0336		mg/Kg-dry	1	07/23/13 04:53 PM
Aroclor 1221	ND	0.0168	0.0336		mg/Kg-dry	1	07/23/13 04:53 PM
Aroclor 1232	ND	0.0168	0.0336		mg/Kg-dry	1	07/23/13 04:53 PM
Aroclor 1242	ND	0.0168	0.0336		mg/Kg-dry	1	07/23/13 04:53 PM
Aroclor 1248	ND	0.0168	0.0336		mg/Kg-dry	1	07/23/13 04:53 PM
Aroclor 1254	ND	0.0168	0.0336		mg/Kg-dry	1	07/23/13 04:53 PM
Aroclor 1260	ND	0.0168	0.0336		mg/Kg-dry	1	07/23/13 04:53 PM
Surr: 2-Fluorobiphenyl	81.5	0	43-125		%REC	1	07/23/13 04:53 PM
Surr: 4-Terphenyl-d14	104	0	32-125		%REC	1	07/23/13 04:53 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **DEW**
Benzene	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Toluene	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Carbon tetrachloride	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
1,2-Dichloroethane	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
1,1-Dichloroethylene	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Tetrachloroethylene	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Trichloroethylene	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Ethylbenzene	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Total Xylenes	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Methylene chloride	ND	0.00507	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Chloroform	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
1,1-Dichloroethane	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Ethylene bromide	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
1,1,1-Trichloroethane	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
1,1,2-Trichloroethane	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
1,1,2,2-Tetrachloroethane	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Vinyl chloride	ND	0.00101	0.00507		mg/Kg-dry	1	07/18/13 07:28 PM
Surr: 1,2-Dichloroethane-d4	105	0	52-149		%REC	1	07/18/13 07:28 PM
Surr: 4-Bromofluorobenzene	99.5	0	84-118		%REC	1	07/18/13 07:28 PM
Surr: Dibromofluoromethane	105	0	65-135		%REC	1	07/18/13 07:28 PM
Surr: Toluene-d8	97.1	0	84-116		%REC	1	07/18/13 07:28 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *26-Jul-13*

CLIENT:	Larson & Associates	**Client Sample ID:**	Composite #10
Project:	R360 Artesia Landfarm	**Lab ID:**	1307158-10
Project No:	11-0109-10	**Collection Date:**	07/16/13 09:00 AM
Lab Order:	1307158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRPH		**E418.1**					Analyst: **JCG**
Petroleum Hydrocarbons, TR	ND	5.02	10.0	N	mg/Kg-dry	1	07/22/13 03:18 PM
CYANIDE - SOLID SAMPLE		**SW9014**					Analyst: **JCG**
Cyanide, Total	ND	0.171	0.428		mg/Kg-dry	1	07/24/13 05:16 PM
ANIONS BY IC METHOD - SOIL		**E300**					Analyst: **JBC**
Chloride	ND	5.02	5.02		mg/Kg-dry	1	07/23/13 12:59 PM
Fluoride	ND	1.00	1.00		mg/Kg-dry	1	07/23/13 12:59 PM
Nitrate-N	ND	5.02	5.02		mg/Kg-dry	1	07/23/13 12:59 PM
Sulfate	ND	10.0	10.0		mg/Kg-dry	1	07/23/13 12:59 PM
PH OF SOLID (CORROSIVITY)		**SW9045D**					Analyst: **MK**
pH	7.68	0	0		pH Units@21.2℃	1	07/23/13 01:35 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	1.47	0	0		WT%	1	07/24/13 08:50 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc. **Date:** *25-Jul-13*

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_130722C

The QC data in batch 58449 applies to the following samples: 1307158-01C, 1307158-02C, 1307158-03C, 1307158-04C, 1307158-05C, 1307158-06C, 1307158-07C, 1307158-08C, 1307158-09C, 1307158-10C, 1307158-11C, 1307158-12C

Sample ID: **MB-58449**	Batch ID: **58449**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 1:12:41 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.0400								

Sample ID: **LCS-58449**	Batch ID: **58449**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 1:20:50 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.203	0.0400	0.2000	0	102	85	115			

Sample ID: **LCSD-58449**	Batch ID: **58449**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **LCSD**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 1:22:52 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.207	0.0400	0.2000	0	104	85	115	1.95	25	

Sample ID: **1307158-08C SD**	Batch ID: **58449**	TestNo: **SW7471B**	Units: **mg/Kg-dry**
SampType: **SD**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 2:21:47 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0	0.186	0	0				0	10	

Sample ID: **1307158-08C PDS**	Batch ID: **58449**	TestNo: **SW7471B**	Units: **mg/Kg-dry**
SampType: **PDS**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 2:29:46 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.245	0.0373	0.2328	0	105	85	115			

Sample ID: **1307158-08C MS**	Batch ID: **58449**	TestNo: **SW7471B**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 2:31:49 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.198	0.0372	0.1861	0	107	80	120			

Sample ID: **1307158-08C MSD**	Batch ID: **58449**	TestNo: **SW7471B**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 2:33:53 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.199	0.0373	0.1863	0	107	80	120	0.542	25	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_130722C

Sample ID: **ICV2-130722**	Batch ID: **R67567**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 1:06:34 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00393	0.0400	0.004000	0	98.2	90	110			

Sample ID: **CCV2-130722**	Batch ID: **R67567**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 2:05:21 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00204	0.0400	0.002000	0	102	90	110			

Sample ID: **CCV3-130722**	Batch ID: **R67567**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 2:40:49 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00200	0.0400	0.002000	0	100	90	110			

Sample ID: **CCV4-130722**	Batch ID: **R67567**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **CETAC_HG_130722C**	Analysis Date: **7/22/2013 3:31:33 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00197	0.0400	0.002000	0	98.5	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_130722A

The QC data in batch 58448 applies to the following samples: 1307158-01C, 1307158-02C, 1307158-03C, 1307158-04C, 1307158-05C, 1307158-06C, 1307158-07C, 1307158-08C, 1307158-09C, 1307158-10C, 1307158-11C, 1307158-12C

Sample ID: **1307158-08C SD**	Batch ID: **58448**	TestNo: **SW6020A**	Units: **mg/Kg-dry**
SampType: **SD**	Run ID: **ICP-MS2_130722A**	Analysis Date: **7/22/2013 2:09:00 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	5240	307	0	5196				0.918	10	

Sample ID: **1307158-08C PDS**	Batch ID: **58448**	TestNo: **SW6020A**	Units: **mg/Kg-dry**
SampType: **PDS**	Run ID: **ICP-MS2_130722A**	Analysis Date: **7/22/2013 3:07:00 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	13000	61.4	6144	5196	128	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_130722A

Sample ID: ILCVL-130722	Batch ID: R67561	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS2_130722A	Analysis Date: 7/22/2013 12:11:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.114	0.100	0.100	0	114	70	130			

Sample ID: LCVL1-130722	Batch ID: R67561	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS2_130722A	Analysis Date: 7/22/2013 1:46:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.111	0.100	0.100	0	111	70	130			

Sample ID: LCVL2-130722	Batch ID: R67561	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS2_130722A	Analysis Date: 7/22/2013 3:42:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.111	0.100	0.100	0	111	70	130			

Sample ID: ICV1-130722	Batch ID: R67561	TestNo: SW6020A	Units: mg/L
SampType: ICV	Run ID: ICP-MS2_130722A	Analysis Date: 7/22/2013 11:53:00 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.57	0.100	2.50	0	103	90	110			

Sample ID: CCV1-130722	Batch ID: R67561	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS2_130722A	Analysis Date: 7/22/2013 1:17:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	5.22	0.100	5.00	0	104	90	110			

Sample ID: CCV2-130722	Batch ID: R67561	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS2_130722A	Analysis Date: 7/22/2013 3:13:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	5.28	0.100	5.00	0	106	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_130719B

The QC data in batch 58448 applies to the following samples: 1307158-01C, 1307158-02C, 1307158-03C, 1307158-04C, 1307158-05C, 1307158-06C, 1307158-07C, 1307158-08C, 1307158-09C, 1307158-10C, 1307158-11C, 1307158-12C

Sample ID: **MB-58448** Batch ID: **58448** TestNo: **SW6020A** Units: **mg/Kg**
SampType: **MBLK** Run ID: **ICP-MS3_130719B** Analysis Date: **7/19/2013 8:29:00 PM** Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	1.00								
Barium	ND	2.00								
Cadmium	ND	0.300								
Chromium	ND	2.00								
Copper	ND	2.00								
Iron	ND	12.5								
Lead	ND	0.300								
Manganese	ND	2.00								
Selenium	ND	0.500								
Silver	ND	0.200								
Zinc	ND	2.50								

Sample ID: **LCS-58448** Batch ID: **58448** TestNo: **SW6020A** Units: **mg/Kg**
SampType: **LCS** Run ID: **ICP-MS3_130719B** Analysis Date: **7/19/2013 8:35:00 PM** Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	51.5	1.00	50.00	0	103	80	120			
Barium	50.7	2.00	50.00	0	101	80	120			
Cadmium	49.4	0.300	50.00	0	98.9	80	120			
Chromium	48.6	2.00	50.00	0	97.2	80	120			
Copper	50.0	2.00	50.00	0	100	80	120			
Iron	271	12.5	250.0	0	108	80	120			
Lead	50.7	0.300	50.00	0	101	80	120			
Manganese	52.2	2.00	50.00	0	104	80	120			
Selenium	53.4	0.500	50.00	0	107	80	120			
Silver	50.8	0.200	50.00	0	102	80	120			
Zinc	51.8	2.50	50.00	0	104	80	120			

Sample ID: **LCSD-58448** Batch ID: **58448** TestNo: **SW6020A** Units: **mg/Kg**
SampType: **LCSD** Run ID: **ICP-MS3_130719B** Analysis Date: **7/19/2013 8:41:00 PM** Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	51.2	1.00	50.00	0	103	80	120	0.438	20	
Barium	49.4	2.00	50.00	0	98.8	80	120	2.55	20	
Cadmium	49.0	0.300	50.00	0	97.9	80	120	1.02	20	
Chromium	48.5	2.00	50.00	0	97.0	80	120	0.258	20	
Copper	49.2	2.00	50.00	0	98.3	80	120	1.66	20	
Iron	268	12.5	250.0	0	107	80	120	1.21	20	
Lead	50.4	0.300	50.00	0	101	80	120	0.544	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_130719B

Sample ID: LCSD-58448	Batch ID: 58448	TestNo: SW6020A	Units: mg/Kg
SampType: LCSD	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 8:41:00 PM	Prep Date: 7/19/2013

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	51.7	2.00	50.00	0	103	80	120	1.11	20	
Selenium	52.9	0.500	50.00	0	106	80	120	1.08	20	
Silver	50.5	0.200	50.00	0	101	80	120	0.740	20	
Zinc	50.3	2.50	50.00	0	101	80	120	2.89	20	

Sample ID: 1307158-08C SD	Batch ID: 58448	TestNo: SW6020A	Units: mg/Kg-dry
SampType: SD	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 8:59:00 PM	Prep Date: 7/19/2013

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0	4.91	0	1.540				0	10	
Barium	19.6	9.83	0	19.56				0.062	10	
Cadmium	0	1.47	0	0				0	10	
Chromium	4.45	9.83	0	4.573				2.78	10	
Copper	0	9.83	0	1.370				0	10	
Lead	2.79	1.47	0	2.819				0.876	10	
Manganese	46.0	9.83	0	45.64				0.724	10	
Selenium	0	2.46	0	0.5026				0	10	
Silver	0	0.983	0	0				0	10	
Zinc	9.82	12.3	0	10.11				2.91	10	

Sample ID: 1307158-08C PDS	Batch ID: 58448	TestNo: SW6020A	Units: mg/Kg-dry
SampType: PDS	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 9:59:00 PM	Prep Date: 7/19/2013

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	56.9	0.983	49.15	1.540	113	80	120			
Barium	74.4	1.97	49.15	19.56	112	80	120			
Cadmium	51.4	0.295	49.15	0	105	80	120			
Chromium	56.8	1.97	49.15	4.573	106	80	120			
Copper	54.4	1.97	49.15	1.370	108	80	120			
Lead	55.7	0.295	49.15	2.819	108	80	120			
Manganese	108	1.97	49.15	45.64	127	80	120			S
Selenium	56.8	0.491	49.15	0.5026	115	80	120			
Silver	51.2	0.197	49.15	0	104	80	120			
Zinc	66.1	2.46	49.15	10.11	114	80	120			

Sample ID: 1307158-08C MS	Batch ID: 58448	TestNo: SW6020A	Units: mg/Kg-dry
SampType: MS	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 10:05:00 PM	Prep Date: 7/19/2013

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	52.1	1.00	50.12	1.540	101	80	120			
Barium	70.2	2.00	50.12	19.56	101	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_130719B

Sample ID: **1307158-08C MS**	Batch ID: **58448**	TestNo: **SW6020A**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **ICP-MS3_130719B**	Analysis Date: **7/19/2013 10:05:00 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	48.0	0.301	50.12	0	95.9	80	120			
Chromium	51.9	2.00	50.12	4.573	94.4	80	120			
Copper	49.8	2.00	50.12	1.370	96.7	80	120			
Iron	5010	12.5	250.6	4814	78.0	80	120			S
Lead	51.7	0.301	50.12	2.819	97.6	80	120			
Manganese	94.6	2.00	50.12	45.64	97.6	80	120			
Selenium	52.1	0.501	50.12	0.5026	103	80	120			
Silver	49.2	0.200	50.12	0	98.2	80	120			
Zinc	58.9	2.51	50.12	10.11	97.3	80	120			

Sample ID: **1307158-08C MSD**	Batch ID: **58448**	TestNo: **SW6020A**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **ICP-MS3_130719B**	Analysis Date: **7/19/2013 10:11:00 PM**	Prep Date: **7/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	50.5	0.974	48.68	1.540	100	80	120	3.26	20	
Barium	68.8	1.95	48.68	19.56	101	80	120	2.04	20	
Cadmium	46.0	0.292	48.68	0	94.6	80	120	4.29	20	
Chromium	50.4	1.95	48.68	4.573	94.1	80	120	2.93	20	
Copper	48.7	1.95	48.68	1.370	97.2	80	120	2.38	20	
Iron	4890	12.2	243.4	4814	32.0	80	120	2.38	20	S
Lead	50.6	0.292	48.68	2.819	98.3	80	120	2.11	20	
Manganese	93.3	1.95	48.68	45.64	97.9	80	120	1.32	20	
Selenium	50.2	0.487	48.68	0.5026	102	80	120	3.75	20	
Silver	47.3	0.195	48.68	0	97.1	80	120	4.10	20	
Zinc	57.7	2.43	48.68	10.11	97.8	80	120	2.00	20	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_130719B

Sample ID: **ILCVL-130719**	Batch ID: **R67537**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS3_130719B**	Analysis Date: **7/19/2013 3:16:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00548	0.00500	0.00500	0	110	70	130			
Barium	0.00525	0.0100	0.00500	0	105	70	130			
Cadmium	0.00112	0.00100	0.00100	0	112	70	130			
Chromium	0.00526	0.00500	0.00500	0	105	70	130			
Copper	0.00536	0.0100	0.00500	0	107	70	130			
Iron	0.108	0.100	0.100	0	108	70	130			
Lead	0.00108	0.00100	0.00100	0	108	70	130			
Manganese	0.00558	0.0100	0.00500	0	112	70	130			
Selenium	0.00579	0.00500	0.00500	0	116	70	130			
Silver	0.00210	0.00200	0.00200	0	105	70	130			
Zinc	0.00472	0.00500	0.00500	0	94.5	70	130			

Sample ID: **LCVL2-130719**	Batch ID: **R67537**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS3_130719B**	Analysis Date: **7/19/2013 8:11:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00515	0.00500	0.00500	0	103	70	130			
Barium	0.00490	0.0100	0.00500	0	98.0	70	130			
Cadmium	0.000994	0.00100	0.00100	0	99.4	70	130			
Chromium	0.00456	0.00500	0.00500	0	91.2	70	130			
Copper	0.00477	0.0100	0.00500	0	95.5	70	130			
Iron	0.100	0.100	0.100	0	100	70	130			
Lead	0.000998	0.00100	0.00100	0	99.9	70	130			
Manganese	0.00519	0.0100	0.00500	0	104	70	130			
Selenium	0.00539	0.00500	0.00500	0	108	70	130			
Silver	0.00207	0.00200	0.00200	0	104	70	130			
Zinc	0.00431	0.00500	0.00500	0	86.3	70	130			

Sample ID: **LCVL3-130719**	Batch ID: **R67537**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS3_130719B**	Analysis Date: **7/19/2013 10:59:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00513	0.00500	0.00500	0	103	70	130			
Barium	0.00503	0.0100	0.00500	0	101	70	130			
Cadmium	0.00103	0.00100	0.00100	0	103	70	130			
Chromium	0.00455	0.00500	0.00500	0	91.0	70	130			
Copper	0.00469	0.0100	0.00500	0	93.9	70	130			
Iron	0.100	0.100	0.100	0	100	70	130			
Lead	0.00100	0.00100	0.00100	0	100	70	130			
Manganese	0.00515	0.0100	0.00500	0	103	70	130			
Selenium	0.00521	0.00500	0.00500	0	104	70	130			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_130719B

Sample ID: LCVL3-130719	Batch ID: R67537	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 10:59:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.00203	0.00200	0.00200	0	102	70	130			
Zinc	0.00435	0.00500	0.00500	0	87.1	70	130			

Sample ID: LCVL4-130719	Batch ID: R67537	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS3_130719B	Analysis Date: 7/20/2013 12:59:00 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00520	0.00500	0.00500	0	104	70	130			
Barium	0.00479	0.0100	0.00500	0	95.9	70	130			
Cadmium	0.000831	0.00100	0.00100	0	83.1	70	130			
Chromium	0.00434	0.00500	0.00500	0	86.8	70	130			
Copper	0.00470	0.0100	0.00500	0	94.1	70	130			
Iron	0.102	0.100	0.100	0	102	70	130			
Lead	0.000981	0.00100	0.00100	0	98.1	70	130			
Manganese	0.00503	0.0100	0.00500	0	101	70	130			
Selenium	0.00535	0.00500	0.00500	0	107	70	130			
Silver	0.00202	0.00200	0.00200	0	101	70	130			
Zinc	0.00426	0.00500	0.00500	0	85.2	70	130			

Sample ID: ICV1-130719	Batch ID: R67537	TestNo: SW6020A	Units: mg/L
SampType: ICV	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 2:58:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.103	0.00500	0.100	0	103	90	110			
Barium	0.101	0.0100	0.100	0	101	90	110			
Cadmium	0.102	0.00100	0.100	0	102	90	110			
Chromium	0.104	0.00500	0.100	0	104	90	110			
Copper	0.106	0.0100	0.100	0	106	90	110			
Iron	2.69	0.100	2.50	0	108	90	110			
Lead	0.101	0.00100	0.100	0	101	90	110			
Manganese	0.108	0.0100	0.100	0	108	90	110			
Selenium	0.107	0.00500	0.100	0	107	90	110			
Silver	0.103	0.00200	0.100	0	103	90	110			
Zinc	0.107	0.00500	0.100	0	107	90	110			

Sample ID: CCV2-130719	Batch ID: R67537	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 7:29:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.200	0.00500	0.200	0	100	90	110			
Barium	0.195	0.0100	0.200	0	97.3	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_130719B

Sample ID: CCV2-130719	Batch ID: R67537	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 7:29:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.193	0.00100	0.200	0	96.5	90	110			
Chromium	0.184	0.00500	0.200	0	92.0	90	110			
Copper	0.186	0.0100	0.200	0	93.2	90	110			
Iron	4.94	0.100	5.00	0	98.8	90	110			
Lead	0.193	0.00100	0.200	0	96.7	90	110			
Manganese	0.198	0.0100	0.200	0	98.8	90	110			
Selenium	0.214	0.00500	0.200	0	107	90	110			
Silver	0.195	0.00200	0.200	0	97.4	90	110			
Zinc	0.204	0.00500	0.200	0	102	90	110			

Sample ID: CCV3-130719	Batch ID: R67537	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS3_130719B	Analysis Date: 7/19/2013 10:17:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.202	0.00500	0.200	0	101	90	110			
Barium	0.188	0.0100	0.200	0	93.8	90	110			
Cadmium	0.188	0.00100	0.200	0	93.8	90	110			
Chromium	0.186	0.00500	0.200	0	93.2	90	110			
Copper	0.191	0.0100	0.200	0	95.6	90	110			
Iron	5.06	0.100	5.00	0	101	90	110			
Lead	0.194	0.00100	0.200	0	96.8	90	110			
Manganese	0.198	0.0100	0.200	0	99.1	90	110			
Selenium	0.208	0.00500	0.200	0	104	90	110			
Silver	0.190	0.00200	0.200	0	95.2	90	110			
Zinc	0.204	0.00500	0.200	0	102	90	110			

Sample ID: CCV4-130719	Batch ID: R67537	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS3_130719B	Analysis Date: 7/20/2013 12:28:00 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.204	0.00500	0.200	0	102	90	110			
Barium	0.190	0.0100	0.200	0	95.0	90	110			
Cadmium	0.188	0.00100	0.200	0	93.8	90	110			
Chromium	0.186	0.00500	0.200	0	93.0	90	110			
Copper	0.194	0.0100	0.200	0	97.2	90	110			
Iron	5.04	0.100	5.00	0	101	90	110			
Lead	0.192	0.00100	0.200	0	96.0	90	110			
Manganese	0.199	0.0100	0.200	0	99.5	90	110			
Selenium	0.211	0.00500	0.200	0	106	90	110			
Silver	0.191	0.00200	0.200	0	95.4	90	110			
Zinc	0.200	0.00500	0.200	0	99.8	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS8_130723A

The QC data in batch 58538 applies to the following samples: 1307158-01C, 1307158-02C, 1307158-03C, 1307158-04C, 1307158-05C, 1307158-06C, 1307158-07C, 1307158-08C, 1307158-09C, 1307158-10C, 1307158-11C, 1307158-12C

Sample ID: **MB-58538** Batch ID: **58538** TestNo: **SW8270D** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GCMS8_130723A** Analysis Date: **7/23/2013 3:20:00 PM** Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0500								
Aroclor 1221	ND	0.0500								
Aroclor 1232	ND	0.0500								
Aroclor 1242	ND	0.0500								
Aroclor 1248	ND	0.0500								
Aroclor 1254	ND	0.0500								
Aroclor 1260	ND	0.0500								
Surr: 2-Fluorobiphenyl	0.767		1.000		76.7	43	125			
Surr: 4-Terphenyl-d14	1.05		1.000		105	32	125			

Sample ID: **LCS-58538** Batch ID: **58538** TestNo: **SW8270D** Units: **mg/Kg**
SampType: **LCS** Run ID: **GCMS8_130723A** Analysis Date: **7/23/2013 7:28:00 PM** Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.956	0.0500	1.000	0	95.6	41	138			
Aroclor 1260	1.04	0.0500	1.000	0	104	61	131			
Surr: 2-Fluorobiphenyl	0.894		1.000		89.4	43	125			
Surr: 4-Terphenyl-d14	1.20		1.000		120	32	125			

Sample ID: **1307213-02CMS** Batch ID: **58538** TestNo: **SW8270D** Units: **mg/Kg**
SampType: **MS** Run ID: **GCMS8_130723A** Analysis Date: **7/23/2013 7:59:00 PM** Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.601	0.0324	0.6489	0	92.7	41	138			
Aroclor 1260	0.626	0.0324	0.6489	0	96.4	61	131			
Surr: 2-Fluorobiphenyl	0.559		0.6489		86.1	43	125			
Surr: 4-Terphenyl-d14	0.735		0.6489		113	32	125			

Sample ID: **1307213-02CMS** Batch ID: **58538** TestNo: **SW8270D** Units: **mg/Kg**
SampType: **MSD** Run ID: **GCMS8_130723A** Analysis Date: **7/23/2013 8:30:00 PM** Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.633	0.0324	0.6489	0	97.6	41	138	5.21	50	
Aroclor 1260	0.676	0.0324	0.6489	0	104	61	131	7.81	50	
Surr: 2-Fluorobiphenyl	0.573		0.6489		88.3	43	125	0	0	
Surr: 4-Terphenyl-d14	0.764		0.6489		118	32	125	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS8_130723A

Sample ID: **ICV-130723**	Batch ID: **R67582**	TestNo: **SW8270D**		Units:	**mg/Kg**
SampType: **ICV**	Run ID: **GCMS8_130723A**	Analysis Date: **7/23/2013 2:49:00 PM**		Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	2.00	0.0500	2.000	0	100	80	120			
Aroclor 1260	2.20	0.0500	2.000	0	110	80	120			
Surr: 2-Fluorobiphenyl	1.91		2.000		95.6	80	120			
Surr: 4-Terphenyl-d14	2.37		2.000		119	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_130723A

The QC data in batch 58493 applies to the following samples: 1307158-01C, 1307158-02C, 1307158-03C, 1307158-04C, 1307158-05C, 1307158-06C, 1307158-07C, 1307158-08C, 1307158-09C, 1307158-10C, 1307158-11C, 1307158-12C

Sample ID: **LCS-58493** Batch ID: **58493** TestNo: **SW8270D** Units: **mg/Kg**
SampType: **LCS** Run ID: **GCMS9_130723A** Analysis Date: **7/23/2013 9:53:00 AM** Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1.01	0.0266	1.340	0	75.4	40	125			N
2,3,4,6-Tetrachlorophenol	1.12	0.0266	1.340	0	83.4	40	125			
2,4,5-Trichlorophenol	1.15	0.0266	1.340	0	85.5	49	125			
2,4,6-Trichlorophenol	1.15	0.0266	1.340	0	85.8	43	125			
2,4-Dichlorophenol	1.13	0.0266	1.340	0	84.3	45	125			
2,4-Dimethylphenol	1.08	0.0266	1.340	0	80.5	32	125			
2,4-Dinitrophenol	1.09	0.132	1.340	0	81.4	25	132			
2,6-Dichlorophenol	1.13	0.0266	1.340	0	84.4	38	125			
2-Chlorophenol	1.05	0.0266	1.340	0	78.5	44	125			
2-Methylnaphthalene	1.02	0.0266	1.340	0	76.0	47	125			
2-Methylphenol	0.839	0.0266	1.340	0	62.6	40	125			
2-Nitrophenol	1.09	0.0266	1.340	0	81.3	42	125			
4,6-Dinitro-2-methylphenol	1.23	0.0660	1.340	0	91.5	29	137			
4-Chloro-3-methylphenol	1.11	0.0266	1.340	0	83.2	46	125			
4-Methylphenol	0.855	0.0266	1.340	0	63.8	41	125			
4-Nitrophenol	1.16	0.132	1.340	0	86.5	25	138			
Benzo[a]pyrene	1.24	0.0266	1.340	0	92.2	50	125			
Naphthalene	1.07	0.0266	1.340	0	79.9	40	125			
Pentachlorophenol	1.07	0.0266	1.340	0	79.6	25	125			
Phenol	0.914	0.0266	1.340	0	68.2	25	125			
Surr: 2,4,6-Tribromophenol	0.660		0.6670		99.0	45	138			
Surr: 2-Fluorobiphenyl	0.653		0.6670		98.0	60	135			
Surr: 2-Fluorophenol	0.667		0.6670		100	37	125			
Surr: 4-Terphenyl-d14	0.680		0.6670		102	60	129			
Surr: Nitrobenzene-d5	0.593		0.6670		89.0	45	125			
Surr: Phenol-d5	0.567		0.6670		85.0	40	125			

Sample ID: **1307175-04DMS** Batch ID: **58493** TestNo: **SW8270D** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **GCMS9_130723A** Analysis Date: **7/23/2013 10:16:00 AM** Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1.02	0.0284	1.430	0	71.6	40	125			N
2,3,4,6-Tetrachlorophenol	1.03	0.0284	1.430	0	71.8	40	125			
2,4,5-Trichlorophenol	1.08	0.0284	1.430	0	75.5	49	125			
2,4,6-Trichlorophenol	1.08	0.0284	1.430	0	75.3	43	125			
2,4-Dichlorophenol	1.10	0.0284	1.430	0	77.0	45	125			
2,4-Dimethylphenol	1.02	0.0284	1.430	0	71.3	32	125			
2,4-Dinitrophenol	0.731	0.141	1.430	0	51.1	25	132			
2,6-Dichlorophenol	1.10	0.0284	1.430	0	76.6	38	125			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_130723A

Sample ID: **1307175-04DMS**	Batch ID: **58493**	TestNo: **SW8270D**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **GCMS9_130723A**	Analysis Date: **7/23/2013 10:16:00 AM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Chlorophenol	1.06	0.0284	1.430	0	74.1	44	125			
2-Methylnaphthalene	1.00	0.0284	1.430	0	70.2	47	125			
2-Methylphenol	0.848	0.0284	1.430	0	59.3	40	125			
2-Nitrophenol	1.05	0.0284	1.430	0	73.5	42	125			
4,6-Dinitro-2-methylphenol	0.951	0.0704	1.430	0	66.5	29	137			
4-Chloro-3-methylphenol	1.07	0.0284	1.430	0	74.6	46	125			
4-Methylphenol	0.852	0.0284	1.430	0	59.6	41	125			
4-Nitrophenol	1.05	0.141	1.430	0	73.4	25	138			
Benzo[a]pyrene	1.15	0.0284	1.430	0	80.6	50	125			
Naphthalene	1.05	0.0284	1.430	0	73.3	40	125			
Pentachlorophenol	0.914	0.0284	1.430	0	63.9	25	125			
Phenol	0.925	0.0284	1.430	0	64.7	25	125			
Surr: 2,4,6-Tribromophenol	2.35		2.847		82.7	45	138			
Surr: 2-Fluorobiphenyl	2.41		2.847		84.7	60	135			
Surr: 2-Fluorophenol	2.40		2.847		84.5	37	125			
Surr: 4-Terphenyl-d14	2.56		2.847		90.0	60	129			
Surr: Nitrobenzene-d5	2.34		2.847		82.2	45	125			
Surr: Phenol-d5	2.09		2.847		73.5	40	125			

Sample ID: **1307175-04DMSD**	Batch ID: **58493**	TestNo: **SW8270D**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GCMS9_130723A**	Analysis Date: **7/23/2013 10:39:00 AM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1.02	0.0289	1.454	0	70.4	40	125	0.025	30	N
2,3,4,6-Tetrachlorophenol	1.05	0.0289	1.454	0	72.5	40	125	2.53	30	
2,4,5-Trichlorophenol	1.12	0.0289	1.454	0	77.0	49	125	3.66	30	
2,4,6-Trichlorophenol	1.13	0.0289	1.454	0	77.9	43	125	5.01	30	
2,4-Dichlorophenol	1.12	0.0289	1.454	0	77.1	45	125	1.77	30	
2,4-Dimethylphenol	1.01	0.0289	1.454	0	69.7	32	125	0.693	30	
2,4-Dinitrophenol	0.759	0.143	1.454	0	52.2	25	132	3.75	30	
2,6-Dichlorophenol	1.11	0.0289	1.454	0	76.1	38	125	0.985	30	
2-Chlorophenol	1.09	0.0289	1.454	0	75.0	44	125	2.77	30	
2-Methylnaphthalene	1.02	0.0289	1.454	0	70.2	47	125	1.57	30	
2-Methylphenol	0.863	0.0289	1.454	0	59.4	40	125	1.80	30	
2-Nitrophenol	1.08	0.0289	1.454	0	74.4	42	125	2.91	30	
4,6-Dinitro-2-methylphenol	0.994	0.0716	1.454	0	68.4	29	137	4.37	30	
4-Chloro-3-methylphenol	1.11	0.0289	1.454	0	76.3	46	125	3.81	30	
4-Methylphenol	0.847	0.0289	1.454	0	58.3	41	125	0.643	30	
4-Nitrophenol	1.11	0.143	1.454	0	76.3	25	138	5.49	30	
Benzo[a]pyrene	1.25	0.0289	1.454	0	85.9	50	125	7.91	30	
Naphthalene	1.09	0.0289	1.454	0	75.0	40	125	3.92	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_130723A

Sample ID: **1307175-04DMSD**	Batch ID: **58493**	TestNo: **SW8270D**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GCMS9_130723A**	Analysis Date: **7/23/2013 10:39:00 AM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Pentachlorophenol	0.942	0.0289	1.454	0	64.8	25	125	3.03	30	
Phenol	0.944	0.0289	1.454	0	65.0	25	125	2.10	30	
Surr: 2,4,6-Tribromophenol	2.44		2.894		84.2	45	138	0	0	
Surr: 2-Fluorobiphenyl	2.48		2.894		85.7	60	135	0	0	
Surr: 2-Fluorophenol	2.47		2.894		85.2	37	125	0	0	
Surr: 4-Terphenyl-d14	2.71		2.894		93.7	60	129	0	0	
Surr: Nitrobenzene-d5	2.42		2.894		83.5	45	125	0	0	
Surr: Phenol-d5	2.13		2.894		73.7	40	125	0	0	

Sample ID: **MB-58493**	Batch ID: **58493**	TestNo: **SW8270D**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GCMS9_130723A**	Analysis Date: **7/23/2013 11:26:00 AM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	0.0266								N
2,3,4,6-Tetrachlorophenol	ND	0.0266								
2,4,5-Trichlorophenol	ND	0.0266								
2,4,6-Trichlorophenol	ND	0.0266								
2,4-Dichlorophenol	ND	0.0266								
2,4-Dimethylphenol	ND	0.0266								
2,4-Dinitrophenol	ND	0.132								
2,6-Dichlorophenol	ND	0.0266								
2-Chlorophenol	ND	0.0266								
2-Methylnaphthalene	ND	0.0266								
2-Methylphenol	ND	0.0266								
2-Nitrophenol	ND	0.0266								
4,6-Dinitro-2-methylphenol	ND	0.0660								
4-Chloro-3-methylphenol	ND	0.0266								
4-Methylphenol	ND	0.0266								
4-Nitrophenol	ND	0.132								
Benzo[a]pyrene	ND	0.0266								
Naphthalene	ND	0.0266								
Pentachlorophenol	ND	0.0266								
Phenol	ND	0.0266								
Total Phenol (Calculated)	ND	0.0266								
Surr: 2,4,6-Tribromophenol	0.500		0.6670		75.0	45	138			
Surr: 2-Fluorobiphenyl	0.580		0.6670		87.0	60	135			
Surr: 2-Fluorophenol	0.600		0.6670		90.0	37	125			
Surr: 4-Terphenyl-d14	0.627		0.6670		94.0	60	129			
Surr: Nitrobenzene-d5	0.520		0.6670		78.0	45	125			
Surr: Phenol-d5	0.513		0.6670		77.0	40	125			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS9_130723A

Sample ID: **ICV-130723**	Batch ID: **R67579**	TestNo: **SW8270D**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GCMS9_130723A**	Analysis Date: **7/23/2013 9:30:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.87	0.0266	4.000	0	96.7	80	120			N
2,3,4,6-Tetrachlorophenol	3.92	0.0266	4.000	0	98.0	80	120			
2,4,5-Trichlorophenol	3.99	0.0266	4.000	0	99.7	80	120			
2,4,6-Trichlorophenol	4.07	0.0266	4.000	0	102	80	120			
2,4-Dichlorophenol	3.96	0.0266	4.000	0	99.1	80	120			
2,4-Dimethylphenol	3.78	0.0266	4.000	0	94.4	80	120			
2,4-Dinitrophenol	3.89	0.132	4.000	0	97.3	80	120			
2,6-Dichlorophenol	4.06	0.0266	4.000	0	101	80	120			
2-Chlorophenol	3.89	0.0266	4.000	0	97.4	80	120			
2-Methylnaphthalene	3.86	0.0266	4.000	0	96.6	80	120			
2-Methylphenol	3.34	0.0266	4.000	0	83.4	80	120			
2-Nitrophenol	4.00	0.0266	4.000	0	99.9	80	120			
4,6-Dinitro-2-methylphenol	3.97	0.0660	4.000	0	99.3	80	120			
4-Chloro-3-methylphenol	4.05	0.0266	4.000	0	101	80	120			
4-Methylphenol	3.40	0.0266	4.000	0	85.0	80	120			
4-Nitrophenol	3.92	0.132	4.000	0	97.9	80	120			
Benzo[a]pyrene	4.08	0.0266	4.000	0	102	80	120			
Naphthalene	3.98	0.0266	4.000	0	99.5	80	120			
Pentachlorophenol	3.93	0.0266	4.000	0	98.2	80	120			
Phenol	3.59	0.0266	4.000	0	89.8	80	120			
Total Phenol (Calculated)	57.9	0.0266	0							
Surr: 2,4,6-Tribromophenol	3.99		4.000		99.8	80	120			
Surr: 2-Fluorobiphenyl	4.00		4.000		100	80	120			
Surr: 2-Fluorophenol	4.26		4.000		106	80	120			
Surr: 4-Terphenyl-d14	4.16		4.000		104	80	120			
Surr: Nitrobenzene-d5	4.09		4.000		102	80	120			
Surr: Phenol-d5	3.59		4.000		89.8	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_130718A

The QC data in batch 58451 applies to the following samples: 1307158-01A, 1307158-02A, 1307158-03A, 1307158-04A, 1307158-05A, 1307158-06A, 1307158-07A, 1307158-08A, 1307158-09A, 1307158-10A, 1307158-11A, 1307158-12A

Sample ID: **LCS-58451** Batch ID: **58451** TestNo: **SW8260C** Units: **mg/Kg**
SampType: **LCS** Run ID: **GCMS1_130718A** Analysis Date: **7/18/2013 1:38:00 PM** Prep Date: **7/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.0237	0.00500	0.0232	0	102	68	130			
1,1,2,2-Tetrachloroethane	0.0223	0.00500	0.0232	0	96.3	59	140			
1,1,2-Trichloroethane	0.0229	0.00500	0.0232	0	98.7	62	127			
1,1-Dichloroethane	0.0221	0.00500	0.0232	0	95.4	73	125			
1,1-Dichloroethylene	0.0211	0.00500	0.0232	0	90.8	65	136			
1,2-Dichloroethane	0.0234	0.00500	0.0232	0	101	72	137			
Benzene	0.0224	0.00500	0.0232	0	96.8	75	125			
Carbon tetrachloride	0.0237	0.00500	0.0232	0	102	67	133			
Chloroform	0.0239	0.00500	0.0232	0	103	72	124			
Ethylbenzene	0.0228	0.00500	0.0232	0	98.4	75	125			
Ethylene bromide	0.0221	0.00500	0.0232	0	95.4	70	124			
Methylene chloride	0.0256	0.00500	0.0232	0	111	63	137			
Tetrachloroethylene	0.0236	0.00500	0.0232	0	102	67	139			
Toluene	0.0236	0.00500	0.0232	0	102	75	125			
Trichloroethylene	0.0238	0.00500	0.0232	0	103	77	124			
Vinyl chloride	0.0210	0.00500	0.0232	0	90.7	58	126			
Total Xylenes	0.0679	0.00500	0.0696	0	97.6	75	125			
Surr: 1,2-Dichloroethane-d4	50.4		50.00		101	52	149			
Surr: 4-Bromofluorobenzene	50.7		50.00		101	84	118			
Surr: Dibromofluoromethane	51.1		50.00		102	65	135			
Surr: Toluene-d8	48.2		50.00		96.5	84	116			

Sample ID: **MB-58451** Batch ID: **58451** TestNo: **SW8260C** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GCMS1_130718A** Analysis Date: **7/18/2013 2:12:00 PM** Prep Date: **7/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.00500								
1,1,2,2-Tetrachloroethane	ND	0.00500								
1,1,2-Trichloroethane	ND	0.00500								
1,1-Dichloroethane	ND	0.00500								
1,1-Dichloroethylene	ND	0.00500								
1,2-Dichloroethane	ND	0.00500								
Benzene	ND	0.00500								
Carbon tetrachloride	ND	0.00500								
Chloroform	ND	0.00500								
Ethylbenzene	ND	0.00500								
Ethylene bromide	ND	0.00500								
Methylene chloride	ND	0.00500								
Tetrachloroethylene	ND	0.00500								

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_130718A

Sample ID: **MB-58451**	Batch ID: **58451**	TestNo: **SW8260C**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GCMS1_130718A**	Analysis Date: **7/18/2013 2:12:00 PM**	Prep Date: **7/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	0.00500								
Trichloroethylene	ND	0.00500								
Vinyl chloride	ND	0.00500								
Total Xylenes	ND	0.00500								
Surr: 1,2-Dichloroethane-d4	53.8		50.00		108	52	149			
Surr: 4-Bromofluorobenzene	50.1		50.00		100	84	118			
Surr: Dibromofluoromethane	51.5		50.00		103	65	135			
Surr: Toluene-d8	47.7		50.00		95.4	84	116			

Sample ID: **1307158-12AMS**	Batch ID: **58451**	TestNo: **SW8260C**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **GCMS1_130718A**	Analysis Date: **7/18/2013 9:02:00 PM**	Prep Date: **7/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.0263	0.00604	0.0280	0	93.9	68	130			
1,1,2,2-Tetrachloroethane	0.0241	0.00604	0.0280	0	86.1	59	140			
1,1,2-Trichloroethane	0.0260	0.00604	0.0280	0	93.0	62	127			
1,1-Dichloroethane	0.0254	0.00604	0.0280	0	90.7	73	125			
1,1-Dichloroethylene	0.0242	0.00604	0.0280	0	86.2	65	136			
1,2-Dichloroethane	0.0278	0.00604	0.0280	0	99.1	72	137			
Benzene	0.0249	0.00604	0.0280	0	88.9	73	126			
Carbon tetrachloride	0.0256	0.00604	0.0280	0	91.5	67	133			
Chloroform	0.0265	0.00604	0.0280	0	94.5	72	124			
Ethylbenzene	0.0229	0.00604	0.0280	0	81.8	74	127			
Ethylene bromide	0.0248	0.00604	0.0280	0	88.7	70	124			
Methylene chloride	0.0307	0.00604	0.0280	0	110	63	137			
Tetrachloroethylene	0.0235	0.00604	0.0280	0	84.0	67	139			
Toluene	0.0251	0.00604	0.0280	0	89.5	71	127			
Trichloroethylene	0.0249	0.00604	0.0280	0	88.8	77	124			
Vinyl chloride	0.0226	0.00604	0.0280	0	80.8	58	126			
Total Xylenes	0.0671	0.00604	0.0841	0	79.8	75	125			
Surr: 1,2-Dichloroethane-d4	64.8		60.40		107	52	149			
Surr: 4-Bromofluorobenzene	60.1		60.40		99.5	84	118			
Surr: Dibromofluoromethane	63.3		60.40		105	65	135			
Surr: Toluene-d8	58.1		60.40		96.2	84	116			

Sample ID: **1307158-12AMSD**	Batch ID: **58451**	TestNo: **SW8260C**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GCMS1_130718A**	Analysis Date: **7/18/2013 9:35:00 PM**	Prep Date: **7/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.0273	0.00622	0.0289	0	94.8	68	130	3.81	30	
1,1,2,2-Tetrachloroethane	0.0253	0.00622	0.0289	0	87.7	59	140	4.85	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_130718A

Sample ID: **1307158-12AMSD**	Batch ID: **58451**	TestNo: **SW8260C**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GCMS1_130718A**	Analysis Date: **7/18/2013 9:35:00 PM**	Prep Date: **7/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	0.0272	0.00622	0.0289	0	94.3	62	127	4.39	30	
1,1-Dichloroethane	0.0263	0.00622	0.0289	0	91.1	73	125	3.34	30	
1,1-Dichloroethylene	0.0252	0.00622	0.0289	0	87.2	65	136	4.11	30	
1,2-Dichloroethane	0.0295	0.00622	0.0289	0	102	72	137	6.08	30	
Benzene	0.0259	0.00622	0.0289	0	89.6	73	126	3.74	30	
Carbon tetrachloride	0.0270	0.00622	0.0289	0	93.7	67	133	5.27	30	
Chloroform	0.0278	0.00622	0.0289	0	96.4	72	124	4.94	30	
Ethylbenzene	0.0233	0.00622	0.0289	0	80.6	74	127	1.42	30	
Ethylene bromide	0.0263	0.00622	0.0289	0	91.3	70	124	5.85	30	
Methylene chloride	0.0314	0.00622	0.0289	0	109	63	137	2.08	30	
Tetrachloroethylene	0.0232	0.00622	0.0289	0	80.6	67	139	1.21	30	
Toluene	0.0252	0.00622	0.0289	0	87.4	71	127	0.527	30	
Trichloroethylene	0.0267	0.00622	0.0289	0	92.6	77	124	7.07	30	
Vinyl chloride	0.0244	0.00622	0.0289	0	84.4	58	126	7.30	30	
Total Xylenes	0.0684	0.00622	0.0866	0	79.0	75	125	1.97	30	
Surr: 1,2-Dichloroethane-d4	71.7		62.20		115	52	149	0	0	
Surr: 4-Bromofluorobenzene	61.5		62.20		98.9	84	118	0	0	
Surr: Dibromofluoromethane	65.5		62.20		105	65	135	0	0	
Surr: Toluene-d8	58.5		62.20		94.1	84	116	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_130718A

Sample ID: **ICV-130718**	Batch ID: **R67509**	TestNo: **SW8260C**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GCMS1_130718A**	Analysis Date: **7/18/2013 1:07:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.0476	0.00500	0.0464	0	103	80	120			
1,1,2,2-Tetrachloroethane	0.0439	0.00500	0.0464	0	94.5	80	120			
1,1,2-Trichloroethane	0.0466	0.00500	0.0464	0	100	80	120			
1,1-Dichloroethane	0.0448	0.00500	0.0464	0	96.6	80	120			
1,1-Dichloroethylene	0.0442	0.00500	0.0464	0	95.2	80	120			
1,2-Dichloroethane	0.0483	0.00500	0.0464	0	104	80	120			
Benzene	0.0451	0.00500	0.0464	0	97.2	80	120			
Carbon tetrachloride	0.0475	0.00500	0.0464	0	102	80	120			
Chloroform	0.0475	0.00500	0.0464	0	102	80	120			
Ethylbenzene	0.0452	0.00500	0.0464	0	97.5	80	120			
Ethylene bromide	0.0444	0.00500	0.0464	0	95.7	80	120			
Methylene chloride	0.0500	0.00500	0.0464	0	108	80	120			
Tetrachloroethylene	0.0467	0.00500	0.0464	0	101	80	120			
Toluene	0.0466	0.00500	0.0464	0	100	80	120			
Trichloroethylene	0.0483	0.00500	0.0464	0	104	80	120			
Vinyl chloride	0.0415	0.00500	0.0464	0	89.5	80	120			
Total Xylenes	0.135	0.00500	0.139	0	96.8	80	120			
Surr: 1,2-Dichloroethane-d4	52.5		50.00		105	52	149			
Surr: 4-Bromofluorobenzene	49.7		50.00		99.5	84	118			
Surr: Dibromofluoromethane	51.6		50.00		103	65	135			
Surr: Toluene-d8	47.9		50.00		95.8	84	116			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_130723A

The QC data in batch 58513 applies to the following samples: 1307158-01B, 1307158-02B, 1307158-03B, 1307158-04B, 1307158-05B, 1307158-06B, 1307158-07B, 1307158-08B, 1307158-09B, 1307158-10B, 1307158-11B, 1307158-12B

Sample ID: **LCS-58513** Batch ID: **58513** TestNo: **E300** Units: **mg/Kg**
SampType: **LCS** Run ID: **IC2_130723A** Analysis Date: **7/23/2013 9:05:19 AM** Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	50.2	5.00	50.00	0	100	80	120			
Fluoride	19.5	1.00	20.00	0	97.4	80	120			
Nitrate-N	26.1	5.00	25.00	0	105	80	120			
Sulfate	153	10.0	150.0	0	102	80	120			

Sample ID: **LCSD-58513** Batch ID: **58513** TestNo: **E300** Units: **mg/Kg**
SampType: **LCSD** Run ID: **IC2_130723A** Analysis Date: **7/23/2013 9:19:53 AM** Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	49.9	5.00	50.00	0	99.8	80	120	0.526	20	
Fluoride	19.4	1.00	20.00	0	96.8	80	120	0.636	20	
Nitrate-N	25.8	5.00	25.00	0	103	80	120	1.26	20	
Sulfate	153	10.0	150.0	0	102	80	120	0.025	20	

Sample ID: **MB-58513** Batch ID: **58513** TestNo: **E300** Units: **mg/Kg**
SampType: **MBLK** Run ID: **IC2_130723A** Analysis Date: **7/23/2013 9:34:27 AM** Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	5.00								
Fluoride	ND	1.00								
Nitrate-N	ND	5.00								
Sulfate	ND	10.0								

Sample ID: **1307158-02B MS** Batch ID: **58513** TestNo: **E300** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **IC2_130723A** Analysis Date: **7/23/2013 11:15:48 AM** Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	363	6.37	127.3	268.2	74.2	80	120			S
Fluoride	129	1.27	127.3	7.491	95.8	80	120			
Nitrate-N	26.1	6.37	28.75	0	90.7	80	120			
Sulfate	435	12.7	127.3	311.3	96.9	80	120			

Sample ID: **1307158-02B MSD** Batch ID: **58513** TestNo: **E300** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **IC2_130723A** Analysis Date: **7/23/2013 11:30:23 AM** Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	364	6.37	127.3	268.2	75.2	80	120	0.345	20	S
Fluoride	130	1.27	127.3	7.491	96.5	80	120	0.698	20	
Nitrate-N	26.4	6.37	28.75	0	91.9	80	120	1.30	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_130723A

Sample ID: **1307158-02B MSD**	Batch ID: **58513**	TestNo: **E300**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **IC2_130723A**	Analysis Date: **7/23/2013 11:30:23 AM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	437	12.7	127.3	311.3	98.9	80	120	0.581	20	

Sample ID: **1307158-09B MS**	Batch ID: **58513**	TestNo: **E300**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **IC2_130723A**	Analysis Date: **7/23/2013 1:57:35 PM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	114	5.86	117.1	0	97.6	80	120			
Fluoride	114	1.17	117.1	1.275	96.7	80	120			
Nitrate-N	24.3	5.86	26.44	0	91.7	80	120			
Sulfate	119	11.7	117.1	0	101	80	120			

Sample ID: **1307158-09B MSD**	Batch ID: **58513**	TestNo: **E300**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **IC2_130723A**	Analysis Date: **7/23/2013 2:12:09 PM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	115	5.86	117.1	0	98.1	80	120	0.488	20	
Fluoride	115	1.17	117.1	1.275	97.1	80	120	0.408	20	
Nitrate-N	24.4	5.86	26.44	0	92.4	80	120	0.755	20	
Sulfate	119	11.7	117.1	0	102	80	120	0.551	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_130723A

Sample ID: ICV-130723	Batch ID: R67565	TestNo: E300	Units: mg/Kg
SampType: ICV	Run ID: IC2_130723A	Analysis Date: 7/23/2013 8:47:07 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.7	5.00	25.00	0	103	90	110			
Fluoride	10.1	1.00	10.00	0	101	90	110			
Nitrate-N	13.4	5.00	12.50	0	107	90	110			
Sulfate	80.3	10.0	75.00	0	107	90	110			

Sample ID: CCV1-130723	Batch ID: R67565	TestNo: E300	Units: mg/Kg
SampType: CCV	Run ID: IC2_130723A	Analysis Date: 7/23/2013 11:44:57 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.0	5.00	10.00	0	100	90	110			
Fluoride	3.92	1.00	4.000	0	98.0	90	110			
Nitrate-N	5.18	5.00	5.000	0	104	90	110			
Sulfate	30.7	10.0	30.00	0	102	90	110			

Sample ID: CCV2-130723	Batch ID: R67565	TestNo: E300	Units: mg/Kg
SampType: CCV	Run ID: IC2_130723A	Analysis Date: 7/23/2013 2:26:44 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.94	5.00	10.00	0	99.4	90	110			
Fluoride	3.92	1.00	4.000	0	98.0	90	110			
Nitrate-N	5.19	5.00	5.000	0	104	90	110			
Sulfate	30.5	10.0	30.00	0	102	90	110			

Sample ID: CCV3-130723	Batch ID: R67565	TestNo: E300	Units: mg/Kg
SampType: CCV	Run ID: IC2_130723A	Analysis Date: 7/23/2013 3:40:39 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.90	5.00	10.00	0	99.0	90	110			
Fluoride	3.89	1.00	4.000	0	97.3	90	110			
Nitrate-N	5.14	5.00	5.000	0	103	90	110			
Sulfate	30.5	10.0	30.00	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: IR207_130722A

The QC data in batch 58511 applies to the following samples: 1307158-01B, 1307158-02B, 1307158-03B, 1307158-04B, 1307158-05B, 1307158-06B, 1307158-07B, 1307158-08B, 1307158-09B, 1307158-10B, 1307158-11B, 1307158-12B

Sample ID: **ICV-130722**	Batch ID: **58511**	TestNo: **E418.1**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **IR207_130722A**	Analysis Date: **7/22/2013 3:18:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	249	10.0	250.0	0	99.5	90	110			N

Sample ID: **LCS-58511**	Batch ID: **58511**	TestNo: **E418.1**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **IR207_130722A**	Analysis Date: **7/22/2013 3:18:00 PM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	88.8	10.0	100.0	0	88.8	80	120			N

Sample ID: **MB-58511**	Batch ID: **58511**	TestNo: **E418.1**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **IR207_130722A**	Analysis Date: **7/22/2013 3:18:00 PM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	10.0								N

Sample ID: **1307158-01BMS**	Batch ID: **58511**	TestNo: **E418.1**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **IR207_130722A**	Analysis Date: **7/22/2013 3:18:00 PM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	401	10.2	102.4	168.9	226	80	120			SN

Sample ID: **1307158-01BMSD**	Batch ID: **58511**	TestNo: **E418.1**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **IR207_130722A**	Analysis Date: **7/22/2013 3:18:00 PM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	321	10.1	100.9	168.9	151	80	120	22.1	20	SRN

Sample ID: **CCV1-130722**	Batch ID: **58511**	TestNo: **E418.1**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **IR207_130722A**	Analysis Date: **7/22/2013 3:18:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	250	10.0	250.0	0	100	85	115			N

Sample ID: **LCSD-58511**	Batch ID: **58511**	TestNo: **E418.1**	Units: **mg/Kg**
SampType: **LCSD**	Run ID: **IR207_130722A**	Analysis Date: **7/22/2013 3:18:00 PM**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	88.8	10.0	100.0	0	88.8	80	120	0	20	N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: IR207_130722A

Sample ID: **CCV2-130722**	Batch ID: **58511**	TestNo: **E418.1**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **IR207_130722A**	Analysis Date: **7/22/2013 3:18:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	251	10.0	250.0	0	100	85	115			N

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: PH_130723A

The QC data in batch 58520 applies to the following samples: 1307158-03B, 1307158-04B, 1307158-05B, 1307158-06B, 1307158-09B, 1307158-10B, 1307158-11B, 1307158-12B

Sample ID: **1307175-06A-DUP**	Batch ID: **58520**	TestNo: **SW9045D**	Units: **pH Units@21.3℃**
SampType: **DUP**	Run ID: **PH_130723A**	Analysis Date: **7/23/2013 1:35:00 PM**	Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.22	0	0	7.047				2.36	5	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: PH_130723A

Sample ID: **ICV1-130723**	Batch ID: **PH_S-41478**	TestNo: **SW9045D**	Units: **pH Units@20.7℃**
SampType: **ICV**	Run ID: **PH_130723A**	Analysis Date: **7/23/2013 1:35:00 PM**	Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	4.02	0	4.000	0	100	99	101			

Sample ID: **ICV2-130723**	Batch ID: **PH_S-41478**	TestNo: **SW9045D**	Units: **pH Units@20.7℃**
SampType: **ICV**	Run ID: **PH_130723A**	Analysis Date: **7/23/2013 1:35:00 PM**	Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.01	0	7.000	0	100	99	101			

Sample ID: **ICV3-130723**	Batch ID: **PH_S-41478**	TestNo: **SW9045D**	Units: **pH Units@20.7℃**
SampType: **ICV**	Run ID: **PH_130723A**	Analysis Date: **7/23/2013 1:35:00 PM**	Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	10.0	0	10.00	0	100	99	101			

Sample ID: **CCV-13072**	Batch ID: **PH_S-41478**	TestNo: **SW9045D**	Units: **pH Units@21.1℃**
SampType: **CCV**	Run ID: **PH_130723A**	Analysis Date: **7/23/2013 1:35:00 PM**	Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.10	0	7.000	0	101	97.1	102.9			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_130723A

The QC data in batch 58534 applies to the following samples: 1307158-01C, 1307158-02C, 1307158-03C, 1307158-04C, 1307158-05C, 1307158-06C, 1307158-07C, 1307158-08C, 1307158-09C, 1307158-10C, 1307158-11C, 1307158-12C

Sample ID: **1307157-21A-DUP** Batch ID: **58534** TestNo: **D2216** Units: **WT%**
SampType: **DUP** Run ID: **PMOIST_130723A** Analysis Date: **7/24/2013 8:50:00 AM** Prep Date: **7/23/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	14.7	0	0	14.90				1.27	30	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: UV/VIS_2_130724B

The QC data in batch 58502 applies to the following samples: 1307158-01B, 1307158-02B, 1307158-03B, 1307158-04B, 1307158-05B, 1307158-06B, 1307158-07B, 1307158-08B, 1307158-09B, 1307158-10B, 1307158-11B, 1307158-12B

Sample ID: **MB-58502**	Batch ID: **58502**	TestNo: **SW9014**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **UV/VIS_2_130724B**	Analysis Date: **7/24/2013 5:10:00 PM**	Prep Date: **7/24/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	ND	0.500								

Sample ID: **LCS-58502**	Batch ID: **58502**	TestNo: **SW9014**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **UV/VIS_2_130724B**	Analysis Date: **7/24/2013 5:10:00 PM**	Prep Date: **7/24/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	5.20	0.500	5.000	0	104	85	115			

Sample ID: **1307158-01BMS**	Batch ID: **58502**	TestNo: **SW9014**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **UV/VIS_2_130724B**	Analysis Date: **7/24/2013 5:11:00 PM**	Prep Date: **7/24/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	5.25	0.521	5.213	0	101	75	125			

Sample ID: **1307158-01BMSD**	Batch ID: **58502**	TestNo: **SW9014**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **UV/VIS_2_130724B**	Analysis Date: **7/24/2013 5:11:00 PM**	Prep Date: **7/24/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	5.56	0.521	5.213	0	107	75	125	5.71	30	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: UV/VIS_2_130724B

Sample ID: **ICV-130724**	Batch ID: **R67605**	TestNo: **SW9014**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **UV/VIS_2_130724B**	Analysis Date: **7/24/2013 9:44:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	0.112	0.500	0.1000	0	112	85	115			

Sample ID: **CCV1-130724**	Batch ID: **R67605**	TestNo: **SW9014**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **UV/VIS_2_130724B**	Analysis Date: **7/24/2013 5:13:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	0.229	0.500	0.2000	0	114	85	115			

Sample ID: **CCV2-130724**	Batch ID: **R67605**	TestNo: **SW9014**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **UV/VIS_2_130724B**	Analysis Date: **7/24/2013 5:18:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide, Total	0.213	0.500	0.2000	0	106	85	115			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: WC_130722A

The QC data in batch 58515 applies to the following samples: 1307158-01B, 1307158-02B, 1307158-07B, 1307158-08B

Sample ID: **1307158-08BDUP**	Batch ID: **58515**	TestNo: **SW9045D**	Units: **pH Units@21.2℃**
SampType: **DUP**	Run ID: **WC_130722A**	Analysis Date: **7/22/2013**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.56	0	0	7.519				0.517	5	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1307158
Project: R360 Artesia Landfarm

ANALYTICAL QC SUMMARY REPORT

RunID: WC_130722A

Sample ID: **ICV1-130722**	Batch ID: **PH_S-41477**	TestNo: **SW9045D**	Units: **pH Units@21℃**
SampType: **ICV**	Run ID: **WC_130722A**	Analysis Date: **7/22/2013**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	3.98	0	4.000	0	99.5	99	101			

Sample ID: **ICV2-130722**	Batch ID: **PH_S-41477**	TestNo: **SW9045D**	Units: **pH Units@20.9℃**
SampType: **ICV**	Run ID: **WC_130722A**	Analysis Date: **7/22/2013**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	6.97	0	7.000	0	99.6	99	101			

Sample ID: **ICV3-130722**	Batch ID: **PH_S-41477**	TestNo: **SW9045D**	Units: **pH Units@20.9℃**
SampType: **ICV**	Run ID: **WC_130722A**	Analysis Date: **7/22/2013**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	10.0	0	10.00	0	100	99	101			

Sample ID: **CCV1-130722**	Batch ID: **PH_S-41477**	TestNo: **SW9045D**	Units: **pH Units@21℃**
SampType: **CCV**	Run ID: **WC_130722A**	Analysis Date: **7/22/2013**	Prep Date: **7/22/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.05	0	7.000	0	101	97.1	102.9			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

ATTACHMENT B

DHL ANALYTICAL

October 14, 2014

Mark Larson
Larson & Associates
507 N. Marienfeld #200
Midland, Texas 79701

RE: REPORTING OF RESULTS FOR R360 Artesia Landfarm

Dear Mark Larson,

DHL Analytical, Inc. has sent several reports to Larson and Associates, Inc. for the above referenced project; all of these reports meet the NELAC requirements. On these reports, the column header RL stands for Reporting Limit and this term is equivalent to PQL (Practical Quantitation Limit) which is used by the State of New Mexico. The terms RL and PQL are used by multiple federal and state agencies, and these interchangeable terms all mean that this concentration of analyte in the sample is equivalent to the lowest concentration standard used for the instrument calibration. For the reports associated with R360 Artesia Landfarm all non-detected concentrations of target compounds are reported as ND (not detected) which is the same as less than the PQL value for each analyte.

Sincerely,

John DuPont
General Manager
DHL Analytical, Inc.

2300 Double Creek Drive · Round Rock, TX 78664 · Phone (512) 388-8222 · Fax (512) 388-8229
www.dhlanalytical.com