



September 23, 2010

Brad Davis
Zia Engineering & Environmental
755 S Telshor Blvd Ste F-201
Las Cruces, NM 88011

Order No: 1009138

TEL: (575) 678-3397
FAX: (575) 532-1587

RE: LC-38 Annual Groundwater Monitoring

Dear Brad Davis:

DHL Analytical received 2 sample(s) on 9/22/2010 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.1 and 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. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

A handwritten signature in black ink that reads "John DuPont".

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-10-3



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45207791

1. To: <small>Print Name (Person)</small> SAM ROBERT (512) 368-8222 <small>Company Name</small> DHL ANALYTICAL <small>Street Address (No P.O. Box or P.O. Box Zip Code/Deliveries)</small> 2300 DOUBLET CREEK DR <small>Suite / Floor</small> City State Zip Round Rock TX 78664		2. From: <small>Print Name (Person)</small> CAROL SARKIS (575) 532-1591 <small>Company Name</small> ZIA ENGINEERING + EXPANDED <small>Street Address</small> 755 S. FELLMOR <small>State / Floor</small> City State Zip LAS CAYES NM 88011		3. Service: <small>Visit www.lso.com for availability of services to your destination and enjoy added features by creating your shipping label online.</small> <input type="checkbox"/> By 10:30 am Delivery <small>Check availability at www.lso.com</small> <input type="checkbox"/> Saturday Delivery <small>Check availability at www.lso.com</small> <small>(Extra charge, not available on Ground)</small> <input checked="" type="checkbox"/> By 8:30 am Delivery <small>Check availability at www.lso.com</small> <small>(Extra charge, no signature obtained)</small> <input type="checkbox"/> By 3:00 pm Delivery <small>Assumed 10:30 a.m. service unless otherwise noted.</small> <input type="checkbox"/> Ground (next day to most cities)	
4. Package: <small>Your Company's Billing Reference Information</small> LGS-09-015-R60026 <small>Weight:</small> 09.21.10 x <small>Ship Date: (mm/dd/yy)</small>		FOR COURIER USE ONLY <small>Courier Number</small> _____ <input type="checkbox"/> Check here if LSO Supplies are used with Ground Service. <small>Pick-up Location</small> _____ <small>Date:</small> _____ <small>Time:</small> _____ <small>City Code:</small> _____			

LIMIT OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not in excess of \$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 outlined in our 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 98-30 AND RESIDENTIAL DELIVERIES. PRIORITY SERVICE PACKAGING PROVIDED BY LSO IS NOT INTENDED FOR USE ON GROUND SERVICE. OVSERIZE RATES MAY APPLY. DELIVERY COMMITMENTS MAY VARY. ADDITIONAL FEES MAY APPLY.

Date 9-21-10
 Signature [Signature]



Sample Receipt Checklist

Client Name Zia Engineering & Environmental
Work Order Number 1009138

Date Received: 9/22/2010
Received by JB

Checklist completed by: [Signature] 9/22/10 Date
Reviewed by: SS 9.22.10 Initials Date

Carrier name: LoneStar

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping 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 1.8 °C
- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? NO Checked by [Signature]

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

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Laboratory Data Package Signature Page – RG-366/TRRP-13

Revised May 2010

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

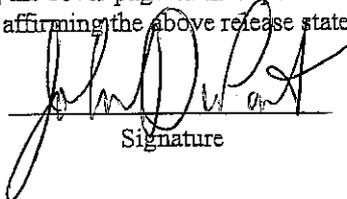
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) The amount of analyte measured in the duplicate,
 - b) The calculated RPD, and
 - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results (DCS results can be found with the Miscellaneous Documents) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on April 6-8, 2009. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

John DuPont – General Manager
Scott Schroeder – Technical Director


Signature

09/23/10
Date

DHL Analytical, Inc.							
Laboratory Review Checklist: Reportable Data							
Project Name: LC-38 Annual Groundwater Monitoring			Date: 9/23/2010				
Reviewer Name: Angie O'Donnell			Laboratory Work Order: 1009138				
Prep Batch Number(s): See Prep Dates Report			Run Batch: See Analytical Dates Report				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER#
		Chain-of-Custody (C-O-C)					
R1	OI	1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				R1-01
		2) Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and Quality Control (QC) Identification					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test Reports					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample detection limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			X		
		7) Were % moisture (or solids) reported for all soil and sediment samples?			X		
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035?			X		
		9) If required for the project, TICs reported?			X		
R4	O	Surrogate Recovery Data					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		R4-02
R5	OI	Test Reports/Summary Forms for Blank Samples					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MQL?	X				
R6	OI	Laboratory Control Samples (LCS):					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data					
		1) Were the project/method specified analytes included in the MS and MSD?			X		
		2) Were MS/MSD analyzed at the appropriate frequency?		X			R7-02
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		
		4) Were MS/MSD RPDs within laboratory QC limits?			X		
R8	OI	Analytical Duplicate Data					
		1) Were appropriate analytical duplicates analyzed for each matrix?			X		
		2) Were analytical duplicates analyzed at the appropriate frequency?			X		
		3) Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method Quantitation Limits (MQLs):					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs and DCSS included in the laboratory data package?	X				
R10	OI	Other Problems/Anomalies					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- NA = Not applicable.
- NR = Not Reviewed.
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.

Laboratory Review Checklist (continued): Supporting Data

Project Name: LC-38 Annual Groundwater Monitoring		Date: 9/23/2010					
Reviewer Name: Angie O'Donnell		Laboratory Work Order: 1009138					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial Calibration (ICAL)					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and Continuing Calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass Spectral Tuning:					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal Standards (IS):					
		1) Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw Data (NELAC Section 5.5.10)					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual Column Confirmation					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively Identified Compounds (TICs):					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) Results:					
		1) Were percent recoveries within method QC limits?	X				
S9	I	Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method Detection Limit (MDL) Studies					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency Test Reports:					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards Documentation					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/Analyte Identification Procedures					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of Analyst Competency (DOC)					
		1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/Validation Documentation for Methods (NELAC Chapter 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory Standard Operating Procedures (SOPs):					
		1) Are laboratory SOPs current and on file for each method performed?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DCS REPORTING

RunID: GC15_100922A
SampID: DCS-43088
TestNo: M8015D
BatchID: 43088

Prep Date: 9/29/2010
Analysis Date: 9/22/2010
Units: mg/L

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>SPK Val</u>	<u>%REC</u>	<u>Low Limit</u>	<u>High Limit</u>	<u>Flag</u>
TPH-DRO C10-C28	0.0333	0.1	0.0375	88.8	10	400	

DCS REPORTING

RunID: ICP-MS2_100813C
 SampID: DCS-42510-2
 TestNo: SW6020
 BatchID: 42510

Prep Date: 8/12/2010
 Anaysis Date: 8/13/2010
 Units: µg/L

Analyte	Result	RL	SPK Val	%REC	Low Limit	High Limit	Flag
Aluminum	40.8	30	40	102	60	140	
Arsenic	3.69	6	4	92.2	60	140	
Barium	3.75	10	4	93.7	60	140	
Boron	3.22	30	4	80.6	60	140	
Calcium	65.7	300	100	65.7	60	140	
Chromium	4.25	6	4	106	60	140	
Cobalt	4.03	10	4	101	60	140	
Copper	4.43	10	4	111	60	140	
Iron	105	150	100	105	60	140	
Lithium	3.73	6	4	93.2	60	140	
Magnesium	99.9	300	100	99.9	60	140	
Manganese	4.11	10	4	103	60	140	
Molybdenum	3.78	6	4	94.4	60	140	
Nickel	3.75	10	4	93.7	60	140	
Potassium	94.7	300	100	94.7	60	140	
Selenium	4.21	6	4	105	60	140	
Sodium	96.2	300	100	96.2	60	140	
Strontium	3.78	10	4	94.6	60	140	
Tin	3.86	10	4	96.5	60	140	
Titanium	3.62	10	4	90.6	60	140	
Vanadium	4.06	10	4	101	60	140	
Zinc	3.86	5	4	96.6	60	140	

CLIENT: Zia Engineering & Environmental
Project: LC-38 Annual Groundwater Monitoring
Lab Order: 1009138

CASE NARRATIVE

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.1 and NELAC.

Samples were analyzed using the methods outlined in the following references:

Method SW6020 - Metals Analysis: ICP-MS
Method M8015D - DRO Analysis
Method M3500-Cr D - Hexavalent Chromium (Trivalent Chromium is not NELAC Certified)

Exception Report R1-01

Samples were received on and log-in performed on 9/22/2010. A total of 2 samples were received and all were analyzed. The samples arrived in good condition and were properly packaged.

Exception Report R4-02

For DRO Analysis, the recovery of surrogate Isopropylbenzene in the Method Blank (MB-43117), the Laboratory Control Spike and the Laboratory Control Spike Duplicate (LCS/LCSD-43117) was slightly below the method control limits. These are flagged in the enclosed QC Summary Report. The remaining surrogate was within acceptable control limits for these samples. No further corrective action was taken.

Exception Report R7-02

For DRO Analysis, Prep Batch 43117, an MS/MSD was not analyzed due to limited sample volume. An LCS /LCSD was analyzed instead.

A summary of project communication follows:

DHL Analytical received the Project RFQ from the client on 12/29/09. Completed RFQ returned to client via email on 1/07/2010. Purchase Order/Terms and Conditions received and signed and approved by both parties on 01/25/2010.

Brad Davis of ZIA Requested a bottle kit from Jennifer Barker of DHL: via email on 8/05/10.

Kit sent on 8/17/2010 via Lonestar Overnight. arrive by 8/28/10.

DHL Project Manager/QA staff discussed with client the following issues:
via email on 9/21/2010- Notice for samples to arrive and request for rush turnaround.

This sample delivery group arrived at DHL Analytical 9/22/2010. Sample summary was sent via email from Log-in to client on 9/22/10 and is kept with the workorder folder.

All hardcopies for the sample kit request, bill of lading for sample kit sent are kept in the project folder.

CLIENT: Zia Engineering & Environmental
Project: LC-38 Annual Groundwater Monitoring
Lab Order: 1009138

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recv'd
1009138-01	LC38-DSPL-MW-002-0910		09/21/10 10:42 AM	09/22/10
1009138-02	LC38-DSPL-MW-102-0910		09/21/10 10:42 AM	09/22/10

CLIENT: Zia Engineering & Environmental
Project: LC-38 Annual Groundwater Monitoring
Lab Order: 1009138

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1009138-01A	LC38-DSPL-MW-002-0910	09/21/10 10:42 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/22/10 09:10 AM	43113
1009138-01B	LC38-DSPL-MW-002-0910	09/21/10 10:42 AM	Aqueous	SW7196A	Hexachrom Prep Water	09/22/10 09:23 AM	43115
1009138-01C	LC38-DSPL-MW-002-0910	09/21/10 10:42 AM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	09/22/10 09:36 AM	43117
1009138-02A	LC38-DSPL-MW-102-0910	09/21/10 10:42 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/22/10 09:10 AM	43113
1009138-02B	LC38-DSPL-MW-102-0910	09/21/10 10:42 AM	Aqueous	SW7196A	Hexachrom Prep Water	09/22/10 09:23 AM	43115
1009138-02C	LC38-DSPL-MW-102-0910	09/21/10 10:42 AM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	09/22/10 09:36 AM	43117

CLIENT: Zia Engineering & Environmental
Project: LC-38 Annual Groundwater Monitoring
Lab Order: 1009138

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1009138-01A	LC38-DSPL-MW-002-0910	Aqueous	SW6020	Trace Metals: ICP-MS - Water	43113	1	09/22/10 03:41 PM	ICP-MS2_100922C
1009138-01B	LC38-DSPL-MW-002-0910	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	43115	1	09/22/10 10:49 AM	UV/VIS_2_100922B
1009138-01C	LC38-DSPL-MW-002-0910	Aqueous	M8015D	TPH Extractable by GC - Water	43117	1	09/22/10 12:05 PM	GC15_100922B
1009138-02A	LC38-DSPL-MW-102-0910	Aqueous	SW6020	Trace Metals: ICP-MS - Water	43113	1	09/22/10 03:35 PM	ICP-MS2_100922C
1009138-02B	LC38-DSPL-MW-102-0910	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	43115	1	09/22/10 10:49 AM	UV/VIS_2_100922B
1009138-02C	LC38-DSPL-MW-102-0910	Aqueous	M8015D	TPH Extractable by GC - Water	43117	1	09/22/10 12:14 PM	GC15_100922B

CLIENT: Zia Engineering & Environmental
Project: LC-38 Annual Groundwater Monitoring
Project No:
Lab Order: 1009138

Client Sample ID: LC38-DSPL-MW-002-0910
Lab ID: 1009138-01
Collection Date: 09/21/10 10:42 AM
Matrix: Aqueous

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH Extractable by GC - Water		M8015D					Analyst: AV
TPH-DRO C10-C28	0.0646	0.0500	0.100	J	mg/L	1	09/22/10 12:05 PM
Surr: Isopropylbenzene	62.8	0	60 - 140		%REC	1	09/22/10 12:05 PM
Surr: Octacosane	88.1	0	51 - 124		%REC	1	09/22/10 12:05 PM
Trace Metals: ICP-MS - Water		SW6020					Analyst: KL
Chromium	0.0238	0.00200	0.00600		mg/L	1	09/22/10 03:41 PM
Hexavalent Chromium-Water		M3500-Cr D					Analyst: LM
Hexavalent Chromium	<0.00800	0.00800	0.0100		mg/L	1	09/22/10 10:49 AM
Trivalent Chromium	0.0238	0.00200	0.00600	N	mg/L	1	09/22/10 10:49 AM

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

CLIENT: Zia Engineering & Environmental
Project: LC-38 Annual Groundwater Monitoring
Project No:
Lab Order: 1009138

Client Sample ID: LC38-DSPL-MW-102-0910
Lab ID: 1009138-02
Collection Date: 09/21/10 10:42 AM
Matrix: Aqueous

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH Extractable by GC - Water		M8015D					Analyst: AV
TPH-DRO C10-C28	0.0727	0.0500	0.100	J	mg/L	1	09/22/10 12:14 PM
Surr: Isopropylbenzene	67.2	0	60 - 140		%REC	1	09/22/10 12:14 PM
Surr: Octacosane	88.7	0	51 - 124		%REC	1	09/22/10 12:14 PM
Trace Metals: ICP-MS - Water		SW6020					Analyst: KL
Chromium	0.0174	0.00200	0.00600		mg/L	1	09/22/10 03:35 PM
Hexavalent Chromium-Water		M3500-Cr D					Analyst: LM
Hexavalent Chromium	<0.00800	0.00800	0.0100		mg/L	1	09/22/10 10:49 AM
Trivalent Chromium	0.0174	0.00200	0.00600	N	mg/L	1	09/22/10 10:49 AM

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

CLIENT: Zia Engineering & Environmental
Work Order: 1009138
Project: LC-38 Annual Groundwater Monitoring

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_100922B

Sample ID: LCS-43117	Batch ID: 43117	TestNo: M8015D	Units: mg/L							
SampType: LCS	Run ID: GC15_100922B	Analysis Date: 09/22/10 11:29 AM	Prep Date: 09/22/10							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
TPH-DRO C10-C28	1.02	0.100	1.250	0	81.9	50	114			
Surr: Isopropylbenzene	0.0851		0.1500		56.7	60	140			S
Surr: Octacosane	0.122		0.1500		81.0	51	124			

Sample ID: LCSD-43117	Batch ID: 43117	TestNo: M8015D	Units: mg/L							
SampType: LCSD	Run ID: GC15_100922B	Analysis Date: 09/22/10 11:38 AM	Prep Date: 09/22/10							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
TPH-DRO C10-C28	1.10	0.100	1.250	0	88.1	50	114	7.31	30	
Surr: Isopropylbenzene	0.0812		0.1500		54.1	60	140	0	0	S
Surr: Octacosane	0.133		0.1500		88.5	51	124	0	0	

Sample ID: MB-43117	Batch ID: 43117	TestNo: M8015D	Units: mg/L							
SampType: MBLK	Run ID: GC15_100922B	Analysis Date: 09/22/10 11:56 AM	Prep Date: 09/22/10							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
TPH-DRO C10-C28	<0.0500	0.100								
Surr: Isopropylbenzene	0.0805		0.1500		53.7	60	140			S
Surr: Octacosane	0.125		0.1500		83.4	51	124			

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

CLIENT: Zia Engineering & Environmental
Work Order: 1009138
Project: LC-38 Annual Groundwater Monitoring

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_100922B

Sample ID: ICV-100922	Batch ID: R51459	TestNo:	M8015D	Units:	mg/L					
SampType: ICV	Run ID: GC15_100922B	Analysis Date:	09/22/10 10:17 AM	Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
TPH-DRO C10-C28	570	0.100	500.0	0	114	80	120			
Surr: Isopropylbenzene	25.0		25.00		100	80	120			
Surr: Octacosane	25.5		25.00		102	80	120			

Sample ID: CCV1-100922	Batch ID: R51459	TestNo:	M8015D	Units:	mg/L					
SampType: CCV	Run ID: GC15_100922B	Analysis Date:	09/22/10 11:20 AM	Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
TPH-DRO C10-C28	279	0.100	250.0	0	112	80	120			
Surr: Isopropylbenzene	12.6		12.50		101	80	120			
Surr: Octacosane	12.9		12.50		103	80	120			

Sample ID: CCV2-100922	Batch ID: R51459	TestNo:	M8015D	Units:	mg/L					
SampType: CCV	Run ID: GC15_100922B	Analysis Date:	09/22/10 12:32 PM	Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
TPH-DRO C10-C28	281	0.100	250.0	0	112	80	120			
Surr: Isopropylbenzene	12.7		12.50		102	80	120			
Surr: Octacosane	13.0		12.50		104	80	120			

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

CLIENT: Zia Engineering & Environmental
Work Order: 1009138
Project: LC-38 Annual Groundwater Monitoring

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_100922C

Sample ID:	Batch ID:	TestNo:	Units:							
SampType:	Run ID:	Analysis Date:	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chromium	<0.00200	0.00600								
Sample ID: MB-43113	Batch ID: 43113	TestNo: SW6020	Units: mg/L							
SampType: MBLK	Run ID: ICP-MS2_100922C	Analysis Date: 09/22/10 03:13 PM	Prep Date: 09/22/10							
Chromium	0.206	0.00600	0.200	0	103	80	120			
Sample ID: LCS-43113	Batch ID: 43113	TestNo: SW6020	Units: mg/L							
SampType: LCS	Run ID: ICP-MS2_100922C	Analysis Date: 09/22/10 03:19 PM	Prep Date: 09/22/10							
Chromium	0.203	0.00600	0.200	0	101	80	120	1.57	15	
Sample ID: LCSD-43113	Batch ID: 43113	TestNo: SW6020	Units: mg/L							
SampType: LCSD	Run ID: ICP-MS2_100922C	Analysis Date: 09/22/10 03:24 PM	Prep Date: 09/22/10							
Chromium	0.0256	0.0300	0	0.0238				7.41	10	
Sample ID: 1009138-01A SD	Batch ID: 43113	TestNo: SW6020	Units: mg/L							
SampType: SD	Run ID: ICP-MS2_100922C	Analysis Date: 09/22/10 03:46 PM	Prep Date: 09/22/10							
Chromium	0.216	0.00600	0.200	0.0238	96.4	75	125			
Sample ID: 1009138-01A PDS	Batch ID: 43113	TestNo: SW6020	Units: mg/L							
SampType: PDS	Run ID: ICP-MS2_100922C	Analysis Date: 09/22/10 03:52 PM	Prep Date: 09/22/10							
Chromium	0.199	0.00600	0.200	0.0238	87.5	80	120			
Sample ID: 1009138-01A MS	Batch ID: 43113	TestNo: SW6020	Units: mg/L							
SampType: MS	Run ID: ICP-MS2_100922C	Analysis Date: 09/22/10 03:57 PM	Prep Date: 09/22/10							
Chromium	0.208	0.00600	0.200	0.0238	92.3	80	120	4.72	15	
Sample ID: 1009138-01A MSD	Batch ID: 43113	TestNo: SW6020	Units: mg/L							
SampType: MSD	Run ID: ICP-MS2_100922C	Analysis Date: 09/22/10 04:02 PM	Prep Date: 09/22/10							

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

CLIENT: Zia Engineering & Environmental
Work Order: 1009138
Project: LC-38 Annual Groundwater Monitoring

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_100922C

Sample ID:	ICV1-100922	Batch ID:	R51472	TestNo:	SW6020	Units:	mg/L			
SampType:	ICV	Run ID:	ICP-MS2_100922C	Analysis Date:	09/22/10 01:07 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chromium	0.106	0.00600	0.100	0	106	90	110			
Sample ID:	CCV1-100922	Batch ID:	R51472	TestNo:	SW6020	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS2_100922C	Analysis Date:	09/22/10 02:57 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chromium	0.218	0.00600	0.200	0	109	90	110			
Sample ID:	CCV2-100922	Batch ID:	R51472	TestNo:	SW6020	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS2_100922C	Analysis Date:	09/22/10 04:08 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chromium	0.216	0.00600	0.200	0	108	90	110			

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

CLIENT: Zia Engineering & Environmental
Work Order: 1009138
Project: LC-38 Annual Groundwater Monitoring

ANALYTICAL QC SUMMARY REPORT

RunID: UV/VIS_2_100922B

Sample ID:	MB-43115	Batch ID:	43115	TestNo:	M3500-Cr D	Units:	mg/L			
SampType:	MBLK	Run ID:	UV/VIS_2_100922B	Analysis Date:	09/22/10 10:49 AM	Prep Date:	09/22/10			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Hexavalent Chromium	<0.00800	0.0100								
Trivalent Chromium	<0.0100	0.0100								N
Sample ID:	LCS-43115	Batch ID:	43115	TestNo:	M3500-Cr D	Units:	mg/L			
SampType:	LCS	Run ID:	UV/VIS_2_100922B	Analysis Date:	09/22/10 10:49 AM	Prep Date:	09/22/10			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Hexavalent Chromium	0.0951	0.0100	0.100	0	95.1	85	115			
Sample ID:	LCSD-43115	Batch ID:	43115	TestNo:	M3500-Cr D	Units:	mg/L			
SampType:	LCSD	Run ID:	UV/VIS_2_100922B	Analysis Date:	09/22/10 10:49 AM	Prep Date:	09/22/10			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Hexavalent Chromium	0.0962	0.0100	0.100	0	96.2	85	115	1.17	15	
Sample ID:	1009138-02B MS	Batch ID:	43115	TestNo:	M3500-Cr D	Units:	mg/L			
SampType:	MS	Run ID:	UV/VIS_2_100922B	Analysis Date:	09/22/10 10:49 AM	Prep Date:	09/22/10			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Hexavalent Chromium	0.101	0.0100	0.100	0	101	85	115			
Sample ID:	1009138-02B MSD	Batch ID:	43115	TestNo:	M3500-Cr D	Units:	mg/L			
SampType:	MSD	Run ID:	UV/VIS_2_100922B	Analysis Date:	09/22/10 10:49 AM	Prep Date:	09/22/10			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Hexavalent Chromium	0.102	0.0100	0.100	0	102	85	115	0.930	15	

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

CLIENT: Zia Engineering & Environmental
Work Order: 1009138
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ANALYTICAL QC SUMMARY REPORT

RunID: UV/VIS_2_100922B

Sample ID:	ICV-100922	Batch ID:	R51456	TestNo:	M3500-Cr D	Units:	mg/L			
SampType:	ICV	Run ID:	UV/VIS_2_100922B	Analysis Date:	09/22/10 10:49 AM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Hexavalent Chromium	0.0965	0.0100	0.100	0	96.5	90	110			
Trivalent Chromium	<0.0100	0.0100	0							N

Sample ID:	CCV-100922	Batch ID:	R51456	TestNo:	M3500-Cr D	Units:	mg/L			
SampType:	CCV	Run ID:	UV/VIS_2_100922B	Analysis Date:	09/22/10 10:49 AM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Hexavalent Chromium	0.198	0.0100	0.200	0	99.1	90	110			
Trivalent Chromium	<0.0100	0.0100	0							N

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

CLIENT: Zia Engineering & Environmental
Work Order: 1009138
Project: LC-38 Annual Groundwater Monitoring

MQL SUMMARY REPORT

TestNo: M3500-Cr D	MDL	MQL
Analyte	mg/L	mg/L
Hexavalent Chromium	0.00800	0.0100
Trivalent Chromium	0.0100	0.0100
TestNo: M8015D	MDL	MQL
Analyte	mg/L	mg/L
TPH-DRO C10-C28	0.0500	0.100
TestNo: SW6020	MDL	MQL
Analyte	mg/L	mg/L
Chromium	0.00200	0.00600

Qualifiers:

MQL - Method Quantitation Limit as defined by TRRP
MDL - Method Detection Limit as defined by TRRP