



P.O. BOX 248, 1186 LOWER RIVER ROAD, NW  
CHARLESTON, TN. 37310-0248

**VIA: E-MAIL and US MAIL**

June 30, 2005

Mr. David Athey, PE  
California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401-5411

**Subject: Target Soil Area, Pre-remedial Soil Samples Result  
Olin/Standard Fusee Site  
Morgan Hill, California**

Dear Mr. Athey:

Attached is GeoSyntec's June 30, 2005 memorandum titled "Transmittal of Pre-Remedial Sample Data." This information is being provided to the Regional Water Quality Control Board, Central Coast Region to satisfy the Board's August 3, 2004 request for pre-remedial soil samples from the in situ bioremediation, Target Soil Area.

The perchlorate results and statistical summary of the twelve riffle split samples are provided in the attached memorandum. Perchlorate analytical results from depth-specific samples are also provided. GeoSyntec reports that "these data indicate that the riffle split samples provide a good estimate of the representative perchlorate mass in the 16-ft soil interval targeted for remediation. The data also show that there do not appear to be lenses within the targeted soil profiles that have highly elevated perchlorate concentrations. These data provide a favorable outlook for the success of the in situ bioremediation system."

Start-up of the in situ bioremediation system is expected in early July 2005. If there are any questions, as always, please do not hesitate to call me.

Sincerely,

**OLIN CORPORATION**

A handwritten signature in blue ink, appearing to read "Richard W. McClure".

Richard W. McClure, P.G., REM  
Environmental Remediation Group

/ATTACHMENT

/cc (via e-mail):

Mr. James J. Deitsch, Ph.D., GeoSyntec  
Mr. Eric Gobler, RWQCB – Central Coast Region

*Mr. David Athey*  
*Target Soil Area, Pre-remedial Soil Samples Result*  
*June 30, 2005*

Ms. Sylvia Hamilton, PCAG Chairperson  
Mr. Thomas Mohr, Santa Clara Valley Water District  
Mr. Curt Richards, Olin  
Mr. Donald Smallbeck, MACTEC  
Ms. Beverly Vessa, Olin/Standard Fusee Repository

# MEMORANDUM

**TO:** David Athey  
Central Coast Regional Water Quality Control Board

**FROM:** Jim Deitsch, Robert Borch, and Evan Cox  
GeoSyntec Consultants

Richard McClure  
Olin Corporation

**DATE:** 30 June 2005

**SUBJECT:** Transmittal of Pre-Remedial Sample Data  
On-Site In Situ Bioremediation System  
Olin/Standard Fusee Site  
Morgan Hill, California

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## Introduction

In July 2004, Olin implemented Phase I of a two phase remediation program for perchlorate in soils at the Olin/Standard Fusee Site in Morgan Hill, California. Phase I consisted of excavation and ex situ treatment of soils containing perchlorate above the United States Environmental Protection Agency (USEPA) Residential Preliminary Remedial Goal (PRG) of 7,800 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). In April 2005, performance monitoring of the ex situ biotreatment pile indicated that the Upper Confidence Limit ( $\text{UCL}_{95}$ ) of the mean soil perchlorate concentration was less than the remediation goal of 50  $\mu\text{g}/\text{kg}$  for Site soils, indicating that the ex situ bioremediation program was successfully completed.

Phase II of the remediation program for perchlorate in soils at the Site was initiated on 9 May 2005. Figure 1 illustrates the location of the infiltration unit wherein the in situ bioremediation will occur. Construction activities included: (i) decommissioning of the ex situ biotreatment pile; (ii) ripping and tilling of amendments into the top four feet of soil within the footprint of the infiltration unit; (iii) installation of the rock pathways along the main line and 8 submain alignments; (iv) installation of the perimeter berm around the infiltration unit; (v) installation of the lysimeters and moisture probes located within the infiltration unit; (vi) installation of electrical and mechanical elements; and (viii) installation of the drip tape. The performance monitoring network of monitoring wells, lysimeters, and soil moisture probes is depicted in Figure 1.

In addition to the construction activities described above, pre-remedial soil samples were collected from the Target Soil Area (TSA) and analyzed for perchlorate to satisfy

the Board's request in their letter of 3 August 2004, titled "425 Tennant Avenue, Morgan Hill; Final Approval of the Remedial Action Work Plan & 90% Design Report for Soil Remediation, 425 Tennant Avenue Facility, Santa Clara County." As stated in the Board's letter, "Olin has proposed to collect twelve 16' riffle split pre-remediation samples at confirmational soil boring locations. Regional Board staff accepts this proposal ... and request the pre-remediation data be forwarded to us, in letter format, no later than 30 days after Olin receives the results." This letter serves to fulfill the stated reporting requirement.

The samples were collected 16 May 2005 from 12 locations agreed to by the Board; the 12 locations are shown in Figure 1 (attached). The samples are designated PRS-1 through PRS-12. At each sample location, 16-ft soil cores were collected using a geoprobe rig. The entire sample was then passed repeatedly through a riffle splitter with a 1-inch chute spacing until a representative 250 gram sample was obtained. This sample was then combined with 250 ml of de-ionized water and mixed on a rotary shaker for one hour. The extract was then decanted, and the decanted liquid was analyzed by Sequoia Analytical according to EPA Method 314. The 1:1 soil-to-extract ratio preserves the 4 µg/L reporting limit for water, resulting in a 4 µg/kg detection limit for the soil sample, well below the remedial objective of 50 µg/kg. The large sample size (250 grams rather than the more typical 4 grams) greatly reduces data scatter attributable to sub-sampling errors. The large sample size also minimizes the potential for size fractionation of the soil prior to extraction except for the exclusion of gravel and cobbles greater than the 1-inch riffle chute size. Laboratory results were received 3 June 2005.

In addition to the twelve 16-ft boreholes drilled for the riffle split samples, one additional 16-ft borehole was drilled adjacent to each of PRS-7 and PRS-8 (i.e., two additional boreholes). From these two boreholes, the 16-ft cores were subdivided into 1-ft sections. Each 1-ft section was processed through the riffle splitter according to the process described above, except that the decanted liquid was analyzed by SiREM Laboratory in Guelph, Canada following EPA Method 314. The sample results from the two additional borings were used as a means to evaluate the data acquired through the riffle splitting procedure.

## Results

The perchlorate results for the twelve riffle split samples are provided in the following table. The analytical report from Sequoia Analytical is provided as an attachment to this letter.

Sample ID	Result (µg/kg)	Reporting Limit (µg/kg)
PRS-001	210	40
PRS-002	60	8
PRS-003	27	4
PRS-004	1100	400
PRS-005	57	8
PRS-006	21	4
PRS-007	130	40
PRS-008	93	16
PRS-009	62	16
PRS-010	780	160
PRS-011	11	4
PRS-012	28	4

The summary statistics for the pre-remedial samples are provided in the following table:

Raw Statistics	
Number of Valid Samples	12
Number of Unique Samples	12
Minimum Concentration (µg/kg)	11
Maximum Concentration (µg/kg)	1100
Mean Concentration (µg/kg)	215
Median Concentration (µg/kg)	61
Standard Deviation (µg/kg)	350
Variance	122413
Coefficient of Variation	1.628
Skewness	2.12
95% H-UCL (µg/kg)	1020

The perchlorate results from the samples collected at the specified intervals are provided in the following table. The analytical report from SiREM Laboratory is provided as an attachment to this letter.

Interval (ft)	PRS-007A (µg/kg)	PRS-008A (µg/kg)
0-1	290	79
2-3	77	73
4-5	170	110

6-7	77	96
8-9	96	83
10-11	55	110
12-13	77	110
14-15	10	110
16-17	10	Not Analyzed
<b>Average</b>	<b>96</b>	<b>96</b>
<b>Core (0-16')</b>	<b>130</b>	<b>93</b>

The data indicate that the riffle split samples provide a good estimate of the representative perchlorate mass in the 16-ft soil interval targeted for remediation. The data also show that there do not appear to be lenses within the targeted soil profiles that have highly elevated perchlorate concentrations. These data provide a favorable outlook for the success of the in situ bioremediation system.

Start-up of the in situ bioremediation system is expected in early July 2005. Olin will periodically update the Board with respect to progress of the in situ bioremediation program.

If you have any questions regarding these data, please do not hesitate to contact Rick McClure.

**FIGURE**

Performance Monitoring Network  
Olin/Standard Fusee Site  
Morgan Hill, California



**LEGEND**

**PROPOSED MONITORING LOCATIONS**

-  LYSIMETER & MOISTURE SENSOR
-  PRE-REMEDIAL SAMPLE
-  CONFIRMATIONAL BORING SAMPLE

**MAXIMUM PERCHLORATE CONCENTRATIONS (µg/kg)**

-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 250
-  250 - 500
-  500 - 1,000
-  1,000 - 5,000
-  > 5,000

-  FORMER BUILDING LOCATIONS (APPROX.)
-  OLIN - STANDARD FUSEE SITE PROPERTY
-  TARGET SOIL AREA
-  EXCAVATION AREA
-  INFILTRATION UNIT



 **GeoSyntec Consultants**  
ATLANTA, GEORGIA

DATE: 27 JULY 2004	SCALE: 1" = 50'
PROJECT NO: GS3279	FIGURE NO: 1
DOCUMENT NO:	FILE NO: PerfMon.mxd

N:\Morgan Hill\GIS\MXDs\July2004

**ATTACHMENT I**

**SEQUOIA ANALYTICAL LABORATORY REPORT**



3 June, 2005

Jim Deitsch  
GeoSyntec Consultants - Oakland  
475 14th Street, Suite 450  
Oakland, CA 94612

RE: GR3509.200.02  
Work Order: MOE0682

Enclosed are the results of analyses for samples received by the laboratory on 05/17/05 11:28. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa Allen  
Project Manager

CA ELAP Certificate #1210

GeoSyntec Consultants - Oakland  
475 14th Street, Suite 450  
Oakland CA, 94612

Project:GR3509.200.02  
Project Number:N/P  
Project Manager:Jim Deitsch

MOE0682  
**Reported:**  
06/03/05 10:37

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PRS-001	MOE0682-01	Water	05/16/05 00:00	05/17/05 11:28
PRS-002	MOE0682-02	Water	05/16/05 00:00	05/17/05 11:28
PRS-003	MOE0682-03	Water	05/16/05 00:00	05/17/05 11:28
PRS-004	MOE0682-04	Water	05/16/05 00:00	05/17/05 11:28
PRS-005	MOE0682-05	Water	05/16/05 00:00	05/17/05 11:28
PRS-006	MOE0682-06	Water	05/16/05 00:00	05/17/05 11:28
PRS-007	MOE0682-07	Water	05/16/05 00:00	05/17/05 11:28
PRS-008	MOE0682-08	Water	05/16/05 00:00	05/17/05 11:28
PRS-009	MOE0682-09	Water	05/16/05 00:00	05/17/05 11:28
PRS-010	MOE0682-10	Water	05/16/05 00:00	05/17/05 11:28
PRS-011	MOE0682-11	Water	05/16/05 00:00	05/17/05 11:28
PRS-012	MOE0682-12	Water	05/16/05 00:00	05/17/05 11:28

GeoSyntec Consultants - Oakland  
 475 14th Street, Suite 450  
 Oakland CA, 94612

 Project:GR3509.200.02  
 Project Number:N/P  
 Project Manager:Jim Deitsch

 MOE0682  
**Reported:**  
 06/03/05 10:37

**Perchlorate by EPA 314.0**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PRS-001 (MOE0682-01) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	210	40	ug/l	10	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-002 (MOE0682-02) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	60	8.0	ug/l	2	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-003 (MOE0682-03) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	27	4.0	ug/l	1	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-004 (MOE0682-04) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	1100	400	ug/l	100	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-005 (MOE0682-05) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	57	8.0	ug/l	2	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-006 (MOE0682-06) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	21	4.0	ug/l	1	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-007 (MOE0682-07) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	130	40	ug/l	10	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-008 (MOE0682-08) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	93	16	ug/l	4	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-009 (MOE0682-09) Water</b>	<b>Sampled: 05/16/05 00:00 Received: 05/17/05 11:28</b>								
Perchlorate	62	16	ug/l	4	5E27012	05/26/05	05/26/05	EPA 314.0	

GeoSyntec Consultants - Oakland  
475 14th Street, Suite 450  
Oakland CA, 94612

Project:GR3509.200.02  
Project Number:N/P  
Project Manager:Jim Deitsch

MOE0682  
**Reported:**  
06/03/05 10:37

**Perchlorate by EPA 314.0**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PRS-010 (MOE0682-10) Water    Sampled: 05/16/05 00:00    Received: 05/17/05 11:28</b>									
Perchlorate	<b>780</b>	160	ug/l	40	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-011 (MOE0682-11) Water    Sampled: 05/16/05 00:00    Received: 05/17/05 11:28</b>									
Perchlorate	<b>11</b>	4.0	ug/l	1	5E27012	05/26/05	05/26/05	EPA 314.0	
<b>PRS-012 (MOE0682-12) Water    Sampled: 05/16/05 00:00    Received: 05/17/05 11:28</b>									
Perchlorate	<b>28</b>	4.0	ug/l	1	5E27012	05/26/05	05/26/05	EPA 314.0	

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MOE0682  
**Reported:**  
06/03/05 10:37

**Physical Parameters by APHA/ASTM/EPA Methods  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PRS-001 (MOE0682-01) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	500	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-002 (MOE0682-02) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	360	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-003 (MOE0682-03) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	410	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-004 (MOE0682-04) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	300	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-005 (MOE0682-05) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	210	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-006 (MOE0682-06) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	280	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-007 (MOE0682-07) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	120	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-008 (MOE0682-08) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	150	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-009 (MOE0682-09) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
Specific Conductivity @ 25 C	160	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	

GeoSyntec Consultants - Oakland  
475 14th Street, Suite 450  
Oakland CA, 94612

Project:GR3509.200.02  
Project Number:N/P  
Project Manager:Jim Deitsch

MOE0682  
**Reported:**  
06/03/05 10:37

**Physical Parameters by APHA/ASTM/EPA Methods  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PRS-010 (MOE0682-10) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
<b>Specific Conductivity @ 25 C</b>	<b>220</b>	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-011 (MOE0682-11) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
<b>Specific Conductivity @ 25 C</b>	<b>260</b>	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	
<b>PRS-012 (MOE0682-12) Water</b>	<b>Sampled: 05/16/05 00:00</b>		<b>Received: 05/17/05 11:28</b>						
<b>Specific Conductivity @ 25 C</b>	<b>220</b>	1.0	umhos/cm	1	5F02032	06/02/05	06/02/05	SM 2510B	

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MOE0682  
**Reported:**  
06/03/05 10:37

**Perchlorate by EPA 314.0 - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5E27012 - General Preparation / EPA 314.0**

<b>Blank (5E27012-BLK1)</b>				Prepared & Analyzed: 05/26/05						
Perchlorate	ND	4.0	ug/l							
<b>Laboratory Control Sample (5E27012-BS1)</b>				Prepared & Analyzed: 05/26/05						
Perchlorate	25.4	4.0	ug/l	25.0		102	85-115			
<b>Matrix Spike (5E27012-MS1)</b>				Prepared & Analyzed: 05/26/05						
Perchlorate	7.72	4.0	ug/l	4.00	4.4	83	80-120			
<b>Matrix Spike Dup (5E27012-MSD1)</b>				Prepared & Analyzed: 05/26/05						
Perchlorate	7.79	4.0	ug/l	4.00	4.4	85	80-120	0.9	15	

GeoSyntec Consultants - Oakland  
475 14th Street, Suite 450  
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MOE0682  
**Reported:**  
06/03/05 10:37

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5F02032 - General Preparation / SM 2510B**

<b>Laboratory Control Sample (5F02032-BS1)</b>				Prepared & Analyzed: 06/02/05						
Specific Conductivity @ 25 C	1460	1.0	umhos/cm	1410		104	90-110			
<b>Matrix Spike (5F02032-MS1)</b>				Source: MOF0002-02 Prepared & Analyzed: 06/02/05						
Specific Conductivity @ 25 C	2390	2.0	umhos/cm	1410	890	106	90-110			
<b>Matrix Spike Dup (5F02032-MSD1)</b>				Source: MOF0002-02 Prepared & Analyzed: 06/02/05						
Specific Conductivity @ 25 C	2400	2.0	umhos/cm	1410	890	107	90-110	0.4	10	

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Oakland CA, 94612

Project:GR3509.200.02  
Project Number:N/P  
Project Manager:Jim Deitsch

MOE0682  
**Reported:**  
06/03/05 10:37

#### **Notes and Definitions**

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference



# SEQUOIA ANALYTICAL CHAIN OF CUSTODY

885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308  
 1455 McDowell Blvd, Suite D. • Petaluma, CA 94954 • (707) 792-1865 • FAX (707) 792-0342  
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 • FAX (916) 921-0100  
 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 • FAX (925) 988-9673

pg 1 of 2

Company Name: Sequoia Analytical Project: CR3509, 200902

Mailing Address: 475 14th St Suite 452 Billing Address (if different):

City: Palo Alto State: CA Zip Code: 94302 P.O. #:

Telephone: 678 202 9500 Fax #:

Report To: Jim Deitch E-mail Address: jim.deitch@sequoia.com Data:  Level II (standard)  Level III  Level IV

Sampler: Robert Bord Date / Time Results Required: 10-15 Working Days (Standard TAT)  72 Hours  48 Hours  24 Hours  2-8 Hours

Turnaround Time:  10-15 Working Days  7 Working Days  5 Working Days

MANDATORY:  SDWA (Drinking Water)  CWA (Waste Water)  RCRA (Hazardous Waste)  Other

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	Comments / Temp. (if required)
1. PRS-001	05/16/05	water	1	60ml	69	Perchlorate
2. PRS-002					02	Note: water extracts to be handled as before.
3. PRS-003					03	
4. PRS-004					04	Robert Bord
5. PRS-005					05	
6. PRS-006					06	Disturbances - see James Harty
7. PRS-007					07	
8. PRS-008					08	
9. PRS-009					09	
10. PRS-010					10	

Relinquished by / Co.: Host of Sequoia Received by / Co.: Ch... Date / Time / Temp.: 5/12/05 1128

Relinquished by / Co.: ... Received by / Co.: ... Date / Time / Temp.: ...

Were Samples Received in Good Condition?  Yes  No Samples on Ice?  Yes  No Method of Shipment: CLIENT Page 1 of 2

White: Sequoia

Yellow: Sequoia

Pink: Client



# SEQUOIA ANALYTICAL CHAIN OF CUSTODY

- 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308
- 1455 McDowell Blvd, Suite D. • Petaluma, CA 94954 • (707) 792-1865 • FAX (707) 792-0342
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- 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 • FAX (925) 988-9673

Pg 2 of 2

Company Name: Seeslyper Project: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ Billing Address (if different): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax #: \_\_\_\_\_ P.O. #: \_\_\_\_\_

Report To: \_\_\_\_\_ E-mail Address: \_\_\_\_\_ OC Data:  Level II (standard)  Level III  Level IV

Sampler: \_\_\_\_\_ Date / Time Results Required: \_\_\_\_\_ Sequoia's Work Order # 1105 DL82

- Turnaround  10-15 Working Days (Standard TAT)  72 Hours  MANDATORY:
- Time:  7 Working Days  48 Hours  SDWA (Drinking Water)
- 5 Working Days  24 Hours  CWA (Waste Water)
- 2-8 Hours  RCRA (Hazardous Waste)  Other

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	Comments/Temp. (if required)
1. PR5-011	05/16/05	water	1	can poly	11	
2. PR5-012	05/16/05		1		12	
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Relinquished by / Co.: Bob Seeslyper Received by / Co.: \_\_\_\_\_ Date / Time / Temp.: \_\_\_\_\_

Relinquished by / Co.: \_\_\_\_\_ Received by / Co.: \_\_\_\_\_ Date / Time / Temp.: \_\_\_\_\_

Relinquished by / Co.: \_\_\_\_\_ Received by / Co.: \_\_\_\_\_ Date / Time / Temp.: \_\_\_\_\_

Relinquished by / Co.: \_\_\_\_\_ Received by / Co.: \_\_\_\_\_ Date / Time / Temp.: \_\_\_\_\_

Were Samples Received in Good Condition?  Yes  No Samples on Ice?  Yes  No Method of Shipment: CURRENT Page 2 of 2

White: Sequoia

Yellow: Sequoia

Pink: Client

# SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Cassidy's Construction  
 REC. BY (PRINT): JAS  
 WORKORDER: WOL 0682

DATE RECD AT LAB: 5/26/05  
 TIME RECD AT LAB: 11:28  
 DATE LOGGED IN: 5-28-05

For Regulatory Purposes?  
 DRINKING WATER YES/NO  
 WASTE WATER YES/NO

(For clients requiring preservation checks at receipt, document here ↓)

**CIRCLE THE APPROPRIATE RESPONSE**

LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
		PLS-001	6cm Poly			W	5/16/05	
		002	35ml					
		003						
		004						
		005						
		006						
		007						
		008						
		009						
		010						
		011						
		012						

1. Custody Seal(s) Present / Absent  Intact / Broken\*
2. Chain-of-Custody Present / Absent\*
3. Traffic Reports or Packing List: Present / Absent
4. Airbill: Airbill / Sticker Present / Absent
5. Airbill #: \_\_\_\_\_
6. Sample Labels: Present / Absent
7. Sample IDs:  Present /  Not Listed on Chain-of-Custody
8. Sample Condition:  Intact /  Broken\* /  Leaking\*
9. Does information on chain-of-custody, traffic reports and sample labels agree?  Yes /  No\*
10. Sample received within hold time?  Yes /  No\*
11. Adequate sample volume received?  Yes /  No\*
12. Proper Preservatives used?  Yes /  No\*
13. Trip Blank / Temp Blank Received?  Yes /  No\* (circle which, if yes)
14. Temp Rec. at Lab: 6.5°C  
 Is temp 4 +/- 2°C?  Yes /  No\*\*

(Acceptance range for samples requiring thermal pres.)  
 \*\*Exception (if any): METALS / DFF ON ICE or Problem COC

\*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

**ATTACHMENT II**

**SiREM LABORATORY REPORT**



130 Research Lane, Suite 2 Guelph, Ontario, N1G 5G3 Canada Tel: (519) 822-2265 Fax: (519) 822-3151

**Analytical Results**

SIREM File Reference S-0483

Client: Olin  
 Client Project Number: GR3509.200  
 Date Samples Received: May 18, 2005  
 Date Samples Analysed: May 18, 2005

Client Sample ID	SiREM Reference ID	Date of Sample Analysis	Client sample date	Lactate mg/L	Chloride mg/L	Nitrite-N mg/L	Nitrate-N mg/L	Sulphate mg/L	Bromide mg/L	Phosphate mg/L	perchlorate mg/L
PB007-00	05-1258	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.29
PB007-02	05-1260	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.077
PB007-04	05-1262	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.17
PB007-06	05-1264	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.077
PB007-08	05-1266	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.096
PB007-10	05-1268	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.055
PB007-12	05-1270	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.077
PB007-14	05-1272	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	<-0.02
PB007-16	05-1274	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	<-0.02
PRS008-00	05-1275	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.079
PRS008-02	05-1277	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.073
PRS008-04	05-1279	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.11
PRS008-06	05-1281	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.096
PRS008-08	05-1283	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.083
PRS008-10	05-1285	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.11
PRS008-12	05-1287	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.11
PRS008-14	05-1289	18-May-05	NA	NA	NA	NA	NA	NA	NA	NA	0.11

QL	0.25	0.03	0.28	0.02	0.029	0.14	0.05	0.004
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Comments:  
 Method: Ion Chromatography  
 < = undetected; associated value is QL  
 QL = Quantitation limit  
 J = associated value is estimated; compound positively detected at concentration below the QL  
 NA = not available

Analyst:   
 J. Roberts, Laboratory Technician

Results approved:  
 \_\_\_\_\_  
 Sandra Dworatzek  
 SiREM Laboratory Manager

Date:  
 \_\_\_\_\_  
 19-May-05