Calscience
Environmental
Laboratories, Inc.

REC'D AUG 2 0 1999

August 16, 1999

Sarah Battelle
GeoLogic Associates
16885 W. Bernardo Dr., Suite 305
San Diego, CA 92127

Subject: **Calscience Work Order No.: 99-08-0277**
Client Reference: Gregory Canyon

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 08/09/99 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

William H. Christensen
Quality Assurance Manager

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0277

Method: Inorganic Constituents
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	pH (pH units)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	DF	Nitrate-N (mg/L)	DF	Sulfate (mg/L)	DF
GLA-2	7.10	888	164	100	26.2	100	136	100
River-Up	7.08	585	86	10	0.098 J	1	84	10
GLA-10	6.70	608	120	100	7.1	10	63	10
GLA-7	6.53	578	120	100	0.6	1	76	10
River Down	7.40	622	96	10	0.3	1	171	100
Method Blank	NA	NA	ND	1	ND	1	ND	1
EPA Method:	150.1	160.1	300.0		300.0		300.0	
Date Analyzed:	08/10/99	08/10/99	08/10/99		08/10/99		08/10/99	
RL/MDL:	0.01/NA	1/NA	1/0.107		0.1/0.0077		1/0.056	

Quality Assurance and Control Information

Matrix Spike/Matrix Spike Duplicate

Sample ID: GLA-2

Analyte	Spike Conc. (mg/L)	MS Rec. (%)	MSD Rec. (%)	MS/MSD Control Limits	RPD (%)	RPD Control Limits
Chloride	400	95	94	50-150	0	0-25
Nitrate-N	200	94	94	50-150	0	0-25
Sulfate	400	95	94	50-150	0	0-25

Laboratory Notes

Key: ND=Not Detected at the reporting level, NA=Not applicable, DF=Dilution Factor, RL=Reporting Limit, MDL=Method Detection Limit, J=Analyte was detected at a concentration below the reporting limit. Reported value is estimated.

Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0277

Method: EPA 8260B
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	GLA-2 (µg/L)	River-Up (µg/L)	GLA-10 (µg/L)	GLA-7 (µg/L)	River Down (µg/L)	Trip Blank (µg/L)	Equip Blank (µg/L)	Method Blank (µg/L)	RL	MDL
Acetone	4.3 J	4.8 J	ND	ND	ND	ND	4.2 J	ND	10	3.0
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	0.50	0.25
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.18
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.27
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.092
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.23
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.78
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	10	3.5
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.32
s-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.32
t-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.16
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	10	0.54
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	0.50	0.11
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.20
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.50
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.16
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.43
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.26
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.22
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.24
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	5.0	2.8
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.15
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.22
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.22
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.33
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.36
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.34
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.27
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	0.50	0.37
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.25
c-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.43
t-1,2 Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.33
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.36
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.17
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.38
Dilution Factor:	1	1	1	1	1	1	1			
QC Batch ID:	990810AW	990810AW	990810AW	990810AW	990810AW	990810AW	990810AW	990810AW		
Date Analyzed	08/10/99	08/10/99	08/10/99	08/10/99	08/10/99	08/10/99	08/10/99	08/10/99		

Laboratory Notes

Key: ND=Not Detected at the reporting level, J=Analyte was detected at a concentration below the reporting limit. Reported value is estimated.

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Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0277

Method: EPA 8260B
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	GLA-2 (µg/L)	River-Up (µg/L)	GLA-10 (µg/L)	GLA-7 (µg/L)	River Down (µg/L)	Trip Blank (µg/L)	Equip Blank (µg/L)	Method Blank (µg/L)	RL	MDL
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.24
c-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	0.50	0.20
t-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	0.50	0.17
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.17
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	10	3.0
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.16
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.44
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	3.4 J	10	2.9
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	10	2.9
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	10	0.57
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.25
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.23
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.13
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.29
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.37
Toluene	0.52 J	ND	ND	ND	ND	ND	ND	ND	1.0	0.11
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.47
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.37
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.18
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.22
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.24
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	10	0.35
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.33
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.21
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.24
Vinyl Acetate	ND	ND	ND	ND	ND	ND	ND	ND	10	1.8
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	0.50	0.26
p/m-Xylene	0.69 J	ND	ND	ND	ND	ND	ND	ND	1.0	0.30
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.14
Methyl tert-Butyl Ether	ND	ND	ND	ND	ND	ND	0.6 J	ND	1.0	0.20
Dilution Factor:	1	1	1	1	1	1	1			
QC Batch ID:	990810AW	990810AW	990810AW	990810AW	990810AW	990810AW	990810AW	990810AW		
Date Analyzed	08/10/99	08/10/99	08/10/99	08/10/99	08/10/99	08/10/99	08/10/99	08/10/99		
Surrogate Recoveries:										
Dibromofluoromethane	104	104	103	104	107	102	104	105		
1,4-Bromofluorobenzene	101	100	100	100	99	100	100	99		
Toluene-d8	101	100	101	101	101	101	101	101		

Laboratory Notes

Surrogate Recovery Control Limits:

Dibromofluoromethane	86-118
1,4-Bromofluorobenzene	86-115
Toluene-d8	88-110

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

GeoLogic Associates
16885 W. Bernardo Dr., Suite 305
San Diego, CA 92127

Project: Gregory Canyon

Date Received: 08/09/99
Work Order No: 99-08-0277
Preparation: N/A
Method: EPA 8260B

Spiked Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GLA-2	Aqueous	GC/MS L	N/A	08/10/99	99080277-1

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	108	106	72-127	2	0-25	
Carbon Tetrachloride	110	109	70-130	1	0-25	
Chlorobenzene	106	107	72-131	1	0-25	
1,2-Dichlorobenzene	107	106	70-130	1	0-25	
1,1-Dichloroethene	102	102	69-127	1	0-25	
Toluene	109	109	75-124	0	0-25	
Trichloroethene	109	108	60-137	1	0-25	
Vinyl Chloride	103	100	70-130	3	0-25	
Methyl-tert-Butyl Ether	119	118	80-120	1	0-25	

CALSCIENCE ENVIRONMENTAL
LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 8-9-99

Page 1 of 1

LABORATORY CLIENT: Geologic Associates
ADDRESS: 16885 W. Bernardo Drive
CITY: San Diego STATE: CA ZIP:
TEL: 619 451-1136 FAX: 619 451-1 E-MAIL: WLOPEZ@geologic.com

CLIENT PROJECT NAME / NUMBER: Gregory Canyon
PROJECT CONTACT: Sara Battelle
SAMPLER(S): (SIGNATURE)

P.O. NO.:
QUOTE NO.:
LAB USE ONLY: 0 8 - 0 2 7 7

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___ / ___ / ___.

SPECIAL INSTRUCTIONS

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH_4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	pH, TDS, NO_3, SO_4, Cl
	GLA-2		8-9-99	12:20	GW	4					✓											✓
	River-Up		↓	14:00	↓	4					✓											✓
	GLA-10			14:30		3					✓											✓
	GLA-7			16:15		4					✓											✓
	River Down		✓	16:45	↓	4					✓											✓
	Trip Blank		—	—		1					✓											
	Equip Blank		—	—	↓	1					✓											

Relinquished by: (Signature)	Received by: (Signature)	Date: 8-9-99	Time: 17:20
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date: 08-09-99	Time: 1910

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

02/01/99 Revision

Q&Q Graphic (714) 898-9702

Calscience
Environmental
Laboratories, Inc.

REC'D AUG 2 0 1999

August 17, 1999

Sarah Battelle
GeoLogic Associates
16885 W. Bernardo Dr., Suite 305
San Diego, CA 92127

Subject: **Calscience Work Order No.: 99-08-0304**
Client Reference: Gregory Canyon

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 08/10/99 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

Calscience Environmental
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Jody McInerney
Project Manager

William H. Christensen
Quality Assurance Manager

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Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0304

Method: Inorganic Constituents
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	pH (pH units)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	DF	Nitrate-N (mg/L)	DF	Sulfate (mg/L)	DF
Res. Well #2	6.98	506	74	10	0.3	1	115	100
Res. Well #3	7.01	558	78	10	0.077 J	1	150	100
Res. Well #4	6.80	671	91	10	0.7	1	168	100
GLA 4	6.42	444	46	10	1.0	1	30	10
Method Blank	NA	NA	ND	1	ND	1	ND	1
EPA Method:	150.1	160.1	300.0		300.0		300.0	
Date Analyzed:	08/10/99	08/10/99	08/10/99		08/10/99		08/10/99	
RL/MDL:	0.01/NA	1/NA	1/0.107		0.1/0.0077		1/0.056	

Quality Assurance and Control Information

Matrix Spike/Matrix Spike Duplicate

Sample ID: 99-08-0277-1

Analyte	Spike Conc. (mg/L)	MS Rec. (%)	MSD Rec. (%)	MS/MSD Control Limits	RPD (%)	RPD Control Limits
Chloride	400	95	94	50-150	0	0-25
Nitrate-N	200	94	94	50-150	0	0-25
Sulfate	400	95	94	50-150	0	0-25

Laboratory Notes

Key: ND=Not Detected at the reporting level, NA=Not applicable, DF=Dilution Factor, RL=Reporting Limit, MDL=Method Detection Limit, J=Analyte was detected at a concentration below the reporting limit. Reported value is estimated.

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Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0304

Method: EPA 8260B
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	Res. Well #2 (µg/L)	Res. Well #3 (µg/L)	Res. Well #4 (µg/L)	GLA 4 (µg/L)	Field Blank (µg/L)	Method Blank (µg/L)	RL	MDL
Acetone	ND	ND	4.9 J	ND	ND	ND	10	3.0
Benzene	ND	ND	ND	ND	ND	ND	0.50	0.25
Bromobenzene	ND	ND	ND	ND	ND	ND	1.0	0.18
Bromochloromethane	ND	ND	ND	ND	ND	ND	1.0	0.27
Bromodichloromethane	ND	ND	ND	ND	ND	ND	1.0	0.092
Bromoform	ND	ND	ND	ND	ND	ND	1.0	0.23
Bromomethane	ND	ND	ND	ND	ND	ND	1.0	0.78
2-Butanone	ND	ND	ND	ND	ND	ND	10	3.5
n-Butylbenzene	ND	ND	ND	ND	ND	ND	1.0	0.32
s-Butylbenzene	ND	ND	ND	ND	ND	ND	1.0	0.32
t-Butylbenzene	ND	ND	ND	ND	ND	ND	1.0	0.16
Carbon Disulfide	ND	ND	ND	ND	ND	ND	10	0.54
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	0.50	0.11
Chlorobenzene	ND	ND	ND	ND	ND	ND	1.0	0.20
Chloroethane	ND	ND	ND	ND	ND	ND	1.0	0.50
Chloroform	ND	ND	1.2	ND	ND	ND	1.0	0.16
Chloromethane	ND	ND	ND	ND	ND	ND	1.0	0.43
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	1.0	0.26
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	1.0	0.22
Dibromochloromethane	ND	ND	ND	ND	ND	ND	1.0	0.24
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	ND	ND	5.0	2.8
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	1.0	0.15
Dibromomethane	ND	ND	ND	ND	ND	ND	1.0	0.22
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	1.0	0.22
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	1.0	0.33
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	1.0	0.36
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	1.0	0.34
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	1.0	0.27
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50	0.37
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	1.0	0.25
c-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	1.0	0.43
t-1,2 Dichloroethene	ND	ND	ND	ND	ND	ND	1.0	0.33
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	1.0	0.36
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	1.0	0.17
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	1.0	0.38
Dilution Factor:	1	1	1	1	1	1		
QC Batch ID:	990811AW	990811AW	990811AW	990811AW	990811AW	990811AW		
Date Analyzed	08/11/99	08/11/99	08/11/99	08/11/99	08/11/99	08/11/99		

Laboratory Notes

Key: ND=Not Detected at the reporting level, J=Analyte was detected at a concentration below the reporting limit. Reported value is estimated.

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Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0304

Method: EPA 8260B
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	Res. Well #2 (µg/L)	Res. Well #3 (µg/L)	Res. Well #4 (µg/L)	GLA 4 (µg/L)	Field Blank (µg/L)	Method Blank (µg/L)	RL	MDL
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	1.0	0.24
c-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	0.50	0.20
t-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	0.50	0.17
Ethylbenzene	ND	ND	ND	ND	ND	ND	1.0	0.17
2-Hexanone	ND	ND	ND	ND	ND	ND	10	3.0
Isopropylbenzene	ND	ND	ND	ND	ND	ND	1.0	0.16
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	1.0	0.44
Methylene Chloride	ND	ND	ND	ND	ND	ND	10	2.9
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	10	2.9
Naphthalene	ND	ND	ND	ND	ND	ND	10	0.57
n-Propylbenzene	ND	ND	ND	ND	ND	ND	1.0	0.25
Styrene	ND	ND	ND	ND	ND	ND	1.0	0.23
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	1.0	0.13
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	1.0	0.29
Tetrachloroethene	ND	ND	ND	ND	ND	ND	1.0	0.37
Toluene	ND	ND	ND	ND	ND	ND	1.0	0.11
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	1.0	0.47
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	1.0	0.37
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	1.0	0.18
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	1.0	0.22
Trichloroethene	ND	ND	ND	ND	ND	ND	1.0	0.24
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	10	0.35
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	1.0	0.33
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	1.0	0.21
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	1.0	0.24
Vinyl Acetate	ND	ND	ND	ND	ND	ND	10	1.8
Vinyl Chloride	ND	ND	ND	ND	ND	ND	0.50	0.26
p/m-Xylene	ND	ND	ND	ND	ND	ND	1.0	0.30
o-Xylene	ND	ND	ND	ND	ND	ND	1.0	0.14
Methyl tert-Butyl Ether	ND	ND	ND	ND	ND	ND	1.0	0.20
Dilution Factor:	1	1	1	1	1	1		
QC Batch ID:	990811AW	990811AW	990811AW	990811AW	990811AW	990811AW		
Date Analyzed	08/11/99	08/11/99	08/11/99	08/11/99	08/11/99	08/11/99		
Surrogate Recoveries:								
Dibromofluoromethane	97	97	98	98	97	99		
1,4-Bromofluorobenzene	99	97	96	100	99	97		
Toluene-d8	96	97	96	95	96	98		

Laboratory Notes

Surrogate Recovery Control Limits:

Dibromofluoromethane	86-118
1,4-Bromofluorobenzene	86-115
Toluene-d8	88-110

Key: ND=Not Detected at the reporting level, J=Analyte was detected at a concentration below the reporting limit. Reported value is estimated.

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

GeoLogic Associates
16885 W. Bernardo Dr., Suite 305
San Diego, CA 92127

Project: Gregory Canyon

Date Received: 08/10/99
Work Order No: 99-08-0304
Preparation: N/A
Method: EPA 8260B

Spiked Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Res. Well #2	**Aqueous**	**GC/MS A**	**N/A**	**08/12/99**	**990803041**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	99	72-127	1	0-25	
Carbon Tetrachloride	103	107	70-130	4	0-25	
Chlorobenzene	100	103	72-131	3	0-25	
1,2-Dichlorobenzene	101	102	70-130	1	0-25	
1,1-Dichloroethene	93	97	69-127	4	0-25	
Toluene	100	97	75-124	3	0-25	
Trichloroethene	100	102	60-137	2	0-25	
Vinyl Chloride	82	94	70-130	14	0-25	
Methyl-tert-Butyl Ether	108	102	80-120	5	0-25	

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 8-10-99

Page 1 of 1

LABORATORY CLIENT: Geologic Associates

ADDRESS: 16885 W. Bernardo Drive

CITY: San Diego STATE: CA ZIP:

TEL: 619 451-1136 FAX: — E-MAIL: —

CLIENT PROJECT NAME / NUMBER: Gregory Canyon

PROJECT CONTACT: Sarah Battelle

SAMPLER(S): (SIGNATURE)

P.O. NO.:

QUOTE NO.:

LAB USE ONLY: 0 8 - 5 3 0 4

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___ / ___ / ___.

SPECIAL INSTRUCTIONS

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH_4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	pH, TDS, NO_3, SO_4, Cl			
	Res. Well #2		8-10-99	11:30	GW	4					/											/			
	Res. Well #3		↓	11:50	↓	4					/											/			
	Res. Well #4		↓	12:15	↓	4					/											/			
	GLA 4		↓	14:15	↓	4					/											/			
	Field Blank		↓		↓	1					/														

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		8-10-99	14:46
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date: 8-10-99	Time: 1700

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Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

02/01/99 Revision

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Calscience Environmental Laboratories, Inc.

REC'D AUG 2 0 1999

August 18, 1999

Sarah Battelle
GeoLogic Associates
16885 W. Bernardo Dr., Suite 305
San Diego, CA 92127

Subject: **Calscience Work Order No.: 99-08-0317**
Client Reference: Gregory Canyon

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 08/11/99 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

William H. Christensen
Quality Assurance Manager

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0317

Method: Inorganic Constituents
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	pH (pH units)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	DF	Nitrate-N (mg/L)	DF	Sulfate (mg/L)	DF
GLA 5	6.66	992	157	100	16.6	10	309	100
Method Blank	NA	NA	ND	1	ND	1	ND	1
EPA Method:	150.1	160.1	300.0		300.0		300.0	
Date Analyzed:	08/11/99	08/12/99	08/11/99		08/11/99		08/11/99	
RL/MDL:	0.01/NA	1/NA	1/0.107		0.1/0.0077		1/0.056	

Quality Assurance and Control Information

Matrix Spike/Matrix Spike Duplicate

Sample ID: GLA 5

Analyte	Spike Conc. (mg/L)	MS Rec. (%)	MSD Rec. (%)	MS/MSD Control Limits	RPD (%)	RPD Control Limits
Chloride	400	92	91	50-150	0	0-25
Nitrate-N	200	95	95	50-150	0	0-25
Sulfate	400	96	96	50-150	0	0-25

Laboratory Notes

Key: ND=Not Detected at the reporting level, NA=Not applicable, DF=Dilution Factor, RL=Reporting Limit, MDL=Method Detection Limit

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Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0317

Method: EPA 8260B
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	GLA 5 (µg/L)	Equip. Blank (µg/L)	Method Blank (µg/L)	RL	MDL
Acetone	ND	ND	ND	10	3.0
Benzene	ND	ND	ND	0.50	0.25
Bromobenzene	ND	ND	ND	1.0	0.18
Bromochloromethane	ND	ND	ND	1.0	0.27
Bromodichloromethane	ND	ND	ND	1.0	0.092
Bromoform	ND	ND	ND	1.0	0.23
Bromomethane	ND	ND	ND	1.0	0.78
2-Butanone	ND	ND	ND	10	3.5
n-Butylbenzene	ND	ND	ND	1.0	0.32
s-Butylbenzene	ND	ND	ND	1.0	0.32
t-Butylbenzene	ND	ND	ND	1.0	0.16
Carbon Disulfide	ND	ND	ND	10	0.54
Carbon Tetrachloride	ND	ND	ND	0.50	0.11
Chlorobenzene	ND	ND	ND	1.0	0.20
Chloroethane	ND	ND	ND	1.0	0.50
Chloroform	ND	ND	ND	1.0	0.16
Chloromethane	ND	ND	ND	1.0	0.43
2-Chlorotoluene	ND	ND	ND	1.0	0.26
4-Chlorotoluene	ND	ND	ND	1.0	0.22
Dibromochloromethane	ND	ND	ND	1.0	0.24
1,2-Dibromo-3-Chloropropane	ND	ND	ND	5.0	2.8
1,2-Dibromoethane	ND	ND	ND	1.0	0.15
Dibromomethane	ND	ND	ND	1.0	0.22
1,2-Dichlorobenzene	ND	ND	ND	1.0	0.22
1,3-Dichlorobenzene	ND	ND	ND	1.0	0.33
1,4-Dichlorobenzene	ND	ND	ND	1.0	0.36
Dichlorodifluoromethane	ND	ND	ND	1.0	0.34
1,1-Dichloroethane	ND	ND	ND	1.0	0.27
1,2-Dichloroethane	ND	ND	ND	0.50	0.37
1,1-Dichloroethene	ND	ND	ND	1.0	0.25
c-1,2-Dichloroethene	ND	ND	ND	1.0	0.43
t-1,2 Dichloroethene	ND	ND	ND	1.0	0.33
1,2-Dichloropropane	ND	ND	ND	1.0	0.36
1,3-Dichloropropane	ND	ND	ND	1.0	0.17
2,2-Dichloropropane	ND	ND	ND	1.0	0.38
Dilution Factor:	1	1	1		
QC Batch ID:	990811AW	990811AW	990811AW		
Date Analyzed	08/11/99	08/11/99	08/11/99		

Laboratory Notes

Key: ND=Not Detected at the reporting level

Calscience Environmental Laboratories, Inc.

Analytical Report

LABORATORY ID: 99-08-0317

Method: EPA 8260B
Matrix: Aqueous

CLIENT: GeoLogic Associates
PROJECT: Gregory Canyon

Results

Sample ID	GLA 5 (µg/L)	Equip. Blank (µg/L)	Method Blank (µg/L)	RL	MDL
1,1-Dichloropropene	ND	ND	ND	1.0	0.24
c-1,3-Dichloropropene	ND	ND	ND	0.50	0.20
t-1,3-Dichloropropene	ND	ND	ND	0.50	0.17
Ethylbenzene	ND	ND	ND	1.0	0.17
2-Hexanone	ND	ND	ND	10	3.0
Isopropylbenzene	ND	ND	ND	1.0	0.16
p-Isopropyltoluene	ND	ND	ND	1.0	0.44
Methylene Chloride	ND	ND	ND	10	2.9
4-Methyl-2-Pentanone	ND	ND	ND	10	2.9
Naphthalene	ND	ND	ND	10	0.57
n-Propylbenzene	ND	ND	ND	1.0	0.25
Styrene	ND	ND	ND	1.0	0.23
1,1,1,2-Tetrachloroethane	ND	ND	ND	1.0	0.13
1,1,2,2-Tetrachloroethane	ND	ND	ND	1.0	0.29
Tetrachloroethene	ND	ND	ND	1.0	0.37
Toluene	ND	ND	ND	1.0	0.11
1,2,3-Trichlorobenzene	ND	ND	ND	1.0	0.47
1,2,4-Trichlorobenzene	ND	ND	ND	1.0	0.37
1,1,1-Trichloroethane	ND	ND	ND	1.0	0.18
1,1,2-Trichloroethane	ND	ND	ND	1.0	0.22
Trichloroethene	ND	ND	ND	1.0	0.24
Trichlorofluoromethane	ND	ND	ND	10	0.35
1,2,3-Trichloropropane	ND	ND	ND	1.0	0.33
1,2,4-Trimethylbenzene	ND	ND	ND	1.0	0.21
1,3,5-Trimethylbenzene	ND	ND	ND	1.0	0.24
Vinyl Acetate	ND	ND	ND	10	1.8
Vinyl Chloride	ND	ND	ND	0.50	0.26
p/m-Xylene	ND	ND	ND	1.0	0.30
o-Xylene	ND	ND	ND	1.0	0.14
Methyl tert-Butyl Ether	ND	ND	ND	1.0	0.20
Dilution Factor:	1	1	1		
QC Batch ID:	990811AW	990811AW	990811AW		
Date Analyzed	08/11/99	08/11/99	08/11/99		
Surrogate Recoveries:					
Dibromofluoromethane	100	98	99		
1,4-Bromofluorobenzene	96	97	98		
Toluene-d8	101	98	97		

Laboratory Notes

Surrogate Recovery Control Limits:

Dibromofluoromethane	86-118
1,4-Bromofluorobenzene	86-115
Toluene-d8	88-110

Key: ND=Not Detected at the reporting level, J=Analyte was detected at a concentration below the reporting limit.

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

GeoLogic Associates
16885 W. Bernardo Dr., Suite 305
San Diego, CA 92127

Project: Gregory Canyon

Date Received: 08/11/99
Work Order No: 99-08-0317
Preparation: N/A
Method: EPA 8260B

Spiked Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
99-08-0304-1	**Aqueous**	**GC/MS A**	**N/A**	**08/12/99**	**990803041**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	99	72-127	1	0-25	
Carbon Tetrachloride	103	107	70-130	4	0-25	
Chlorobenzene	100	103	72-131	3	0-25	
1,2-Dichlorobenzene	101	102	70-130	1	0-25	
1,1-Dichloroethene	93	97	69-127	4	0-25	
Toluene	100	97	75-124	3	0-25	
Trichloroethene	100	102	60-137	2	0-25	
Vinyl Chloride	82	94	70-130	14	0-25	
Methyl-tert-Butyl Ether	108	102	80-120	5	0-25	

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7440 LINCOLN WAY
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CHAIN OF CUSTODY RECORD

Date 8-10-99

Page 1 of 1

LABORATORY CLIENT: Geologic Associates

ADDRESS: 16885 W. Bernardo Drive

CITY: San Diego STATE: CA ZIP: 92127

TEL: 619 451 1136 FAX: 619 451 1087 E-MAIL:

CLIENT PROJECT NAME / NUMBER: Gregory Canyon

PROJECT CONTACT: Sarah Bartlett

SAMPLER(S): (SIGNATURE)

P.O. NO.: 9539

QUOTE NO.:

LAB USE ONLY: 0 8 - 0 3 1 7

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___ / ___ / ___.

SPECIAL INSTRUCTIONS

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH_4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	pH, TDS, NO_3, SO_4, Cl			
1	SLA-5		8-10-99	14:50	GW	4					✓											✓			
2	Equip Blank		8-10-99	14:35	↓	1					✓														

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
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