APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

July 31, 2002

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 02-3852 and your project is 00HW019 JPL from Pasadena, CA. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-023852
Collected by: MES/TAM
Collected on: 07/16/02

Received: 07/16/02
Extracted: N/A
Tested: 07/16-19/02
Reported: 07/23/02

Sample Description: Water from Pasadena, CA
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-22 02-03852-1	FB-1 02-03852-2	MW-22-1 02-03852-3	MW-22-2 02-03852-4
Dilution Factor				1	1	1	1
PERCHLORATE	E314	µg/L	4	<4	-	<4	<4
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	<0.5	0.6	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	0.6	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1	1	1	1	1
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	2.9	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result MW-22-3 02-03852-5	MW-22-4 02-03852-6	MW-22-3D 02-03852-7	TB-9 02-03852-8
Dilution Factor				1	1	1	1
PERCHLORATE	E314	µg/L	4	<4	<4	<4	-
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1	1	-	1	0.8J
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-22 02-03852-1	MW-22-1 02-03852-3	MW-22-2 02-03852-4
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level D Data Package Deliverables

General Information

Project: 00HW019 JPL

APCL Service ID: 02-3852

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: JPL/Pasadena, CA./00HW019

For SOTA Environmental

APCL Service No: 02-3852

1. Sample Identification

The sample identifications are listed in the following table:

SOTA Environmental Sample ID	APCL Sample ID
TB-9	02-03852-8
MW-22-4	02-03852-6
ER-22	02-03852-1
MW-22-3	02-03852-5
MW-22-3D	02-03852-7
FB-1	02-03852-2
MW-22-2	02-03852-4
MW-22-1	02-03852-3

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),
E314 (Perchlorate),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

(1) 524.2:

Methylene Chloride was detected in the Method Blank in the amount of 1.6 μg/L. Similar levels of Methylene Chloride were also detected in the most field samples due to lab contamination.

11300

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 2

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code JPL Job #00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☒ regular ☐ rush: ___ days ___ hours Sampled by: MES/TAM

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (524.2)	PERCHLORATE (314.0)	Cr VI (7196)	TOTAL Cr (200.8)	Remarks
TB-9	TRIP BLANK	7/16/02	0705	WATER	HCl	2	X				EPA LEVEL IV QA/QC
MW-22-4	MW-22-4		0721		—	1		X			
ER-22	EQUIP. RINSATE		0733		HCl	3	X				
					—	1		X	X		
					HNO_3	1				X	
MW-22-3	MW-22-3		0749		HCl	3	X				
MW-22-3	MW-22-3				—	1		X			
MW-22-3D	MW-22-3DUPL.				HCl	3	X				
MW-22-3D	MW-22-3 DUPL.				—	1		X			
FB-1	FIELD BLANK		0749		HCl	2	X				
MW-22-2	MW-22-2		0818		HCl	3	X				
					—	1		X	X		
					HNO_3	1				X	
MW-22-1	MW-22-1		0846		HCl	3	X				
MW-22-1	MW-22-1		0846		—	1		X	X		

3952

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☐ Other _____ (Please specify)

Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☒ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None . Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C).

Relinquished by [signature] Date/Time 7/16/02 12:06 Received by [signature] Date/Time 7/16/02 12:04

Relinquished by [signature] Date/Time 7/16/02 1130 Received by [signature] Date/Time 7/16/02 1130

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 2 of 2

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 WEST BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code JPL Job #00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☑ regular ☐ rush: ___ days ___ hours Sampled by: MES/TAM

Field Sample ID No.	Sample Description	Date Collected	Time	Sample Matrix	Preservation	# of Containers	Analysis Items: Total Cr (200.8)	Remarks
MW-22-1	MW-22-1	7/16/02	0846	WATER	HNO_3	1	X	EPA LEVEL IV QA/QC

White – With report
Yellow – Lab copy
Pink – Originator

3852

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☐ Other _____ (Please specify)

Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☐ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None . Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C).

Relinquished by [signature] Date/Time 7/16/02/1206 Received by [signature] Date/Time 7/16/02/12:06

Relinquished by [signature] Date/Time 7/16/02/1330 Received by [signature] Date/Time 7/16/02/1330

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 3852 **Client Name/Project:** Sota Environmental

1. Sample Arrival

Date/Time Received 7/16/02 1330 Date/Time Opened 7/16/02 1330 By (name): Kenn Chen

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☑ APCL Empl: Roy A.

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☐ Client has Copy? ☑ Signed, dated? By: Mike Sayre 7/16/02

☐ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold _____ # Received 9

☐ CoC/Docs Zip-Locked under lid? ☐ Compos.#: _ ☑ #Samples OK? _____

☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): _____

3. Shipping Container/Cooler

☑ Cooler Used? # of 1 Cooled by: ☑ Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Temp °C 3.7

(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).

Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ **pH <2** ☐ pH >12

If Not, pH = _____ Preserved by: ☐ Client ☐ APCL ☐ Third Party _____

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☑ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr

☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP

☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☑ Intact? ☐ Broken? ☐ Documented? Number: ____

Type: ☑ plastic ☑ glass ☐ Tube: brass/SS ☐ Tedlar Bag

☑ Quantity OK? ☐ Leaking? ☐ Anomaly?

☑ Caps tight? ☐ Air Bubbles? ☐ Anomaly?

Labels: ☑ Unique ID? ☑ Date/Time ☐ Preserved?

7. Turn Around Time

☐ RUSH TAT: _____ ☑ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☑ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: _____

☐ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☑ ALL OK? (if not, attach docs) ☐ Client Contact? (Name:_____)Date/Time:_____

Received/Checked by: Kenn Chen Date: 16 Jul 2002 Time: 7:55 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [acal.texfiles]smprcl.tex.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

02-03852 (1288_ 383) (4858100_ 383)

07/16/02

Part 1: General Information

☐ Company Information	Name:	*SOTA Environmental*
	Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
☐ Project Information	Project Description:	*JPL*
	Project #:	*00HW019*
☐ Billing Information	P.O. #:	
	Bill Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
	Lab Project ID:	*2002_0002*
	Client Database #:	*01*
☐ Receiving Information	Who Received Sample?	*Kenny Chan*
	Receiving Date/Time:	*07/16/02 1300*
	COC No.	
☐ Shipping Information	Shipping Company	*APCL pick up*
	Packing Information:	*Cooler/Ice Chester*
	Cooler Temperature:	*3.7 °C*
☐ Container Information	Container Provider:	*Client*
☐ Sampling Information	Sampling Person:	
	Sampling Company:	*Client*
☐ Turn-Around-Time Option:		*Rush 5 working day(s)*
☐ QC Option:		*NEESA D*
☐ Disposal Option:		*Not specify*

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont-tainer	Preser-vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	TB-9	VOC	02-03852-8	W	V	C	40	3	G	071602	N	0	7	☐
2	MW-22-4	Perchl	02-03852-6	W	P		500	1	G	071602	N	0	7	☐
3	ER-22	VOC	02-03852-1-α	W	V	C	40	3	G	071602	N	0	7	☐
	ER-22	Perch/CRVI	02-03852-1-β	W	P		500	1	G	071602	N	0	7	☐
4	MW-22-3	VOC	02-03852-5-α	W	V	C	40	3	G	071602	N	0	7	☐
	MW-22-3	Perch/CRVI	02-03852-5-β	W	P		500	1	G	071602	N	0	7	☐
5	MW-22-3D	VOC	02-03852-7-α	W	V	C	40	3	G	071602	N	0	7	☐
	MW-22-3D	Perch/CRVI	02-03852-7-β	W	P		500	1	G	071602	N	0	7	☐
6	FB-1	VOC	02-03852-2	W	V	C	40	3	G	071602	N	0	7	☐
7	MW-22-2	VOC	02-03852-4-α	W	V	C	40	3	G	071602	N	0	7	☐
	MW-22-2	Perch/CRVI	02-03852-4-β	W	P		500	1	G	071602	N	0	7	☐
8	MW-22-1	VOC	02-03852-3-α	W	V	C	40	3	G	071602	N	0	7	☐
	MW-22-1	Perch/CRVI	02-03852-3-β	W	P		500	1	G	071602	N	0	7	☐

Part 3: Analysis Information

Test Items:

☑	*524.2*	Volatile Organic Compounds
☑	*7196*	Chromium (VI)
☑	*300.0*	Perchlorate, low level
☐	*200.7/6010*	Sodium, Na, by ICP
☐	*200.7/6010*	Potassium, K, by ICP
☐	*200.7/6010*	Calcium, Ca, by ICP
☐	*200.7/6010*	Magnesium, Mg, by ICP
☐	*200.7/6010*	Iron, Fe, by ICP
☐	*300.0*	Sulfate (SO_4^{--}), by IC
☐	*300.0/SM4500NO3C*	Nitrate (NO_3^-) as N by IC
☐	*300.0*	Chloride Cl^- by IC
☐	*SM2320B*	Carbonate
☐	*SM2320B*	Bicarbonate
☐	*9040/150.1*	pH
☐	*160.1*	Solids, Total Dissolved (TDS)
☐	*206.2/7060*	Arsenic, As, by GFAA
☐	*310.1*	Alkalinity
☐	*PAH-SIM*	PAH (NOAA)

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	524.2	CHROMIUM	PERCHL	NA	K	CA	MG	FE	
1	TB-9	VOC	02-03852-8	W	X								☐
2	MW-22-4	Perchl	02-03852-6	W			X						☐
3	ER-22	VOC	02-03852-1-α	W	X								☐
	ER-22	Perch/CRVI	02-03852-1-β	W		X	X						☐
4	MW-22-3	VOC	02-03852-5-α	W	X								☐
	MW-22-3	Perch/CRVI	02-03852-5-β	W			X						☐
5	MW-22-3D	VOC	02-03852-7-α	W	X								☐
	MW-22-3D	Perch/CRVI	02-03852-7-β	W			X						☐
6	FB-1	VOC	02-03852-2	W	X								☐
7	MW-22-2	VOC	02-03852-4-α	W	X								☐
	MW-22-2	Perch/CRVI	02-03852-4-β	W		X	X						☐
8	MW-22-1	VOC	02-03852-3-α	W	X								☐
	MW-22-1	Perch/CRVI	02-03852-3-β	W		X	X						☐

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	SO4	NO3	CL	CARBONATE	BICARBON	PH	TDS	AS	
1	TB-9	VOC	02-03852-8	W									☐
2	MW-22-4	Perchl	02-03852-6	W									☐
3	ER-22	VOC	02-03852-1-α	W									☐
	ER-22	Perch/CRVI	02-03852-1-β	W									☐
4	MW-22-3	VOC	02-03852-5-α	W									☐
	MW-22-3	Perch/CRVI	02-03852-5-β	W									☐
5	MW-22-3D	VOC	02-03852-7-α	W									☐
	MW-22-3D	Perch/CRVI	02-03852-7-β	W									☐
6	FB-1	VOC	02-03852-2	W									☐
7	MW-22-2	VOC	02-03852-4-α	W									☐
	MW-22-2	Perch/CRVI	02-03852-4-β	W									☐
8	MW-22-1	VOC	02-03852-3-α	W									☐
	MW-22-1	Perch/CRVI	02-03852-3-β	W									☐

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	ALKALIN	SIM	
1	TB-9	VOC	02-03852-8	W			☐
2	MW-22-4	Perchl	02-03852-6	W			☐
3	ER-22	VOC	02-03852-1-α	W			☐
	ER-22	Perch/CRVI	02-03852-1-β	W			☐
4	MW-22-3	VOC	02-03852-5-α	W			☐
	MW-22-3	Perch/CRVI	02-03852-5-β	W			☐
5	MW-22-3D	VOC	02-03852-7-α	W			☐
	MW-22-3D	Perch/CRVI	02-03852-7-β	W			☐
6	FB-1	VOC	02-03852-2	W			☐
7	MW-22-2	VOC	02-03852-4-α	W			☐

	MW-22-2	Perch/CRVI	02-03852-4-β	W	☐
8	MW-22-1	VOC	02-03852-3-α	W	☐
	MW-22-1	Perch/CRVI	02-03852-3-β	W	☐

☐ Client"s Requirement: **PLEASE RUN ~~MS/MSD ON SAMPLE #~~**

☐ **IF ENOUGH SAMPLE**

☐ **FOR 8270SIM, PLEASE INCLUDE 1,4-DIOXANE**

Login By En-Yu Paul Kou

Check By DY

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

July 31, 2002

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 02-3885 and your project is 00HW019 JPL from Pasadena, CA. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-023885
Collected by: MES/TAM
Collected on: 07/17/02

Received: 07/17/02
Extracted: N/A
Tested: 07/18-19/02
Reported: 07/24/02

Sample Description: Water from Pasadena, CA
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-3 02-03885-1	MW-3-2 02-03885-2	MW-3-3 02-03885-3
Dilution Factor				1	1	1
PERCHLORATE	314.0	µg/L	4	<4	<4	<4
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	<0.5	2.3
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1	0.6J	0.5J	0.6J
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	0.5J
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result MW-3-4 02-03885-4	MW-3-5 02-03885-5	MW-3-4D 02-03885-6	TB-10 02-03885-7
Dilution Factor				1	1	1	1
PERCHLORATE	314.0	µg/L	4	<4	<4	<4	-
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1	0.6J	-	0.6J	1
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-3 02-03885-1	MW-3-2 02-03885-2
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01

Component Analyzed	Method	Unit	PQL	Analysis Result MW-3-3 02-03885-3	MW-3-4 02-03885-4	MW-3-4D 02-03885-6
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level D Data Package Deliverables

General Information

Project: 00HW019 JPL

APCL Service ID: 02-3885

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: JPL/Pasadena, CA/00HW019

For SOTA Environmental

APCL Service No: 02-3885

1. Sample Identification

The sample identifications are listed in the following table:

SOTA Environmental Sample ID	APCL Sample ID
TB-10	02-03885-7
MW-3-5	02-03885-5
MW-3-4	02-03885-4
MW-3-4D	02-03885-6
MW-3-3	02-03885-3
MW-3-2	02-03885-2
ER-3	02-03885-1

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),
314.0 (Perchlorate, low level),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

None

009500

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

095

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 2

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code JPL Job #00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☑ regular ☐ rush: ___ days ___ hours Sampled by: MES/TAM

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (524.2)	PERCHLORATE (314.0)	Cr VI (7196)	Total Cr (200.8)	Remarks
TB-10	TRIP BLANK	7/17/02	0855	WATER	HCl	2	X				EPA LEVEL IV QA/QC
MW-3-5	MW-3-5		0933		—	1		X			
MW-3-4	MW-3-4		1008		HCl	3	X				
					—	1		X	X		
					HNO_3	1				X	
MW-3-4D	MW-3-4 DUPL.				HCl	3	X				
					—	1		X	X		
					HNO_3	1				X	
MW-3-3	MW-3-3		1447		HCl	3	X				
					—	1		X	X		
					HNO_3	1				X	
MW-3-2	MW-3-2		1513		HCl	3	X				
					HNO_3	1				X	
					—	1		X	X		

3885

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☐ Other _____ (Please specify)

Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☐ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C).

Relinquished by [signature] Date/Time 7/17/02 1725 Received by [signature] Date/Time 7/17/02 1725

Relinquished by [signature] Date/Time 7/17/02 1650 Received by [signature] Date/Time 7/18/02 1083

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 02-3555 **Client Name/Project:** Sota Environmental

1. Sample Arrival

Date/Time Received 7/17/02 1725 Date/Time Opened 7/18/02 0833 By (name): Paul Kay
Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☑ APCL Empl: A. Wad

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☑ Client has Copy? ☑ Signed, dated? By: MES
☑ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold _____ # Received 7
☑ CoC/Docs Zip-Locked under lid? ☐ Compos.#: _ ☑ #Samples OK? _____
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): _____

3. Shipping Container/Cooler

☑ Cooler Used? # of 1 Cooled by: ☑ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp °C 2.4°C _____ _____ _____ _____ _____
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? ☑ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ **pH <2** ☐ pH >12
If Not, pH = _____ Preserved by: ☐ Client ☐ APCL ☐ Third Party _____

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☑ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr
☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☑ Intact? ☐ Broken? ☐ Documented? Number: _____
Type: ☑ plastic ☑ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☑ Quantity OK? ☐ Leaking? ☐ Anomaly?
☑ Caps tight? ☐ Air Bubbles? ☐ Anomaly?
Labels: ☑ Unique ID? ☐ Date/Time ☐ Preserved?

7. Turn Around Time

☑ RUSH TAT: 5 day ☐ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☑ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: _____
☐ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☑ ALL OK? (if not, attach docs) ☐ Client Contact? (Name:_____)Date/Time:_____

Received/Checked by: Paul C Date: 17 Jul 2002 Time: 8:41 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [neal.texfiles]smprcl.tex.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

02-03885 (1288_ 384) (4858100_ 384)

07/18/02

Part 1: General Information

☐	Company Information	Name:	*SOTA Environmental*
		Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
☐	Project Information	Project Description:	*JPL*
		Project #:	*00HW019*
☐	Billing Information	P.O. #:	
		Bill Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
		Lab Project ID:	*2002_0002*
		Client Database #:	*01*
☐	Receiving Information	Who Received Sample?	*Paul Kou*
		Receiving Date/Time:	*07/17/02 1725*
		COC No.	
☐	Shipping Information	Shipping Company	*APCL pick up*
		Packing Information:	*Cooler/Ice Chester*
		Cooler Temperature:	*2.4 °C*
☐	Container Information	Container Provider:	*Client*
☐	Sampling Information	Sampling Person:	
		Sampling Company:	*Client*
☐	Turn-Around-Time Option:		*Rush 5 working day(s)*
☐	QC Option:		*NEESA D*
☐	Disposal Option:		*Not specify*

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Container	Preservative	Vol. ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	TB-10	524.2	02-03885-7	W	V	C	40	2	G	071702	N	0	7	☐
2	MW-3-5	Perchl	02-03885-5	W	P		500	1	G	071702	N	0	7	☐
3	MW-3-4	524.2	02-03885-4-α	W	V	C	40	3	G	071702	N	0	7	☐
	MW-3-4	CRVI/Perch	02-03885-4-β	W	P		500	1	G	071702	N	0	7	☐
4	MW-3-4D	524.2	02-03885-6-α	W	V	C	40	3	G	071702	N	0	7	☐
	MW-3-4D	CRVI/Perch	02-03885-6-β	W	P		500	1	G	071702	N	0	7	☐
5	MW-3-3	524.2	02-03885-3-α	W	V	C	40	3	G	071702	N	0	7	☐
	MW-3-3	CRVI/Perch	02-03885-3-β	W	P		500	1	G	071702	N	0	7	☐
6	MW-3-2	524.2	02-03885-2-α	W	V	C	40	3	G	071702	N	0	7	☐
	MW-3-2	CRVI/Perch	02-03885-2-β	W	P		500	1	G	071702	N	0	7	☐
7	ER-3	524.2	02-03885-1-α	W	V	C	40	3	G	071702	N	0	7	☐
	ER-3	CRVI/Perch	02-03885-1-β	W	P		500	1	G	071702	N	0	7	☐

Part 3: Analysis Information

Test Items:

- ☑ *524.2* Volatile Organic Compounds
- ☑ *7196* Chromium (VI)
- ☑ *300.0* Perchlorate, low level
- ☐ *200.7/6010* Sodium, Na, by ICP
- ☐ *200.7/6010* Potassium, K, by ICP
- ☐ *200.7/6010* Calcium, Ca, by ICP
- ☐ *200.7/6010* Magnesium, Mg, by ICP
- ☐ *200.7/6010* Iron, Fe, by ICP
- ☐ *300.0* Sulfate (SO_4^{--}), by IC
- ☐ *300.0/SM4500NO3C* Nitrate (NO_3^-) as N by IC
- ☐ *300.0* Chloride Cl^- by IC
- ☐ *SM2320B* Carbonate
- ☐ *SM2320B* Bicarbonate
- ☐ *9040/150.1* pH
- ☐ *160.1* Solids, Total Dissolved (TDS)
- ☐ *206.2/7060* Arsenic, As, by GFAA
- ☐ *310.1* Alkalinity
- ☐ *PAH-SIM* PAH (NOAA)

Seq. Client"s Sample ID Sample APCL

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel. (909) 590-1828 Fax (909) 590-1498

July 31, 2002

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 02-3905 and your project is 00HW019 JPL from Pasadena, CA. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-023905
Collected by: MES/TAM
Collected on: 07/18/02

Received: 07/18/02
Extracted: N/A
Tested: 07/18-23/02
Reported: 07/25/02

Sample Description: Water from Pasadena, CA
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result MW-23-4 02-03905-1	MW-23-2 02-03905-2	MW-23-3 02-03905-3
Dilution Factor				1	1	1
PERCHLORATE	314.0	µg/L	4	<4	<4	<4

Component Analyzed	Method	Unit	PQL	Analysis Result ER-23 02-03905-4	MW-23-5 02-03905-5	MW-23-1 02-03905-7
Dilution Factor				1	1	1
PERCHLORATE	314.0	µg/L	4	<4	<4	<4

Component Analyzed	Method	Unit	PQL	Analysis Result MW-23-4 02-03905-1	MW-23-2 02-03905-2
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01
VOLATILE ORGANIC COMPOUNDS					
Dilution Factor				1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	-	<0.5
CHLOROFORM	524.2	µg/L	0.5	-	0.6
1,1-DICHLOROETHANE	524.2	µg/L	0.5	-	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	-	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	-	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1	-	0.5J
TETRACHLOROETHENE	524.2	µg/L	0.5	-	0.6
TRICHLOROETHENE	524.2	µg/L	0.5	-	0.8
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	-	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result MW-23-3 02-03905-3	ER-23 02-03905-4	MW-23-1 02-03905-7
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-23-3 02-03905-3	ER-23 02-03905-4	MW-23-1 02-03905-7
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	<0.5	0.6
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	0.4J
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1	0.5J	0.5J	0.5J
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	1
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	0.9
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result TB-11 02-03905-6
VOLATILE ORGANIC COMPOUNDS				
Dilution Factor				1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1	4.4
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level D Data Package Deliverables

General Information

Project: 00HW019 JPL

APCL Service ID: 02-3905

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: JPL/Pasadena, CA/00HW019

For SOTA Environmental

APCL Service No: 02-3905

1. Sample Identification

The sample identifications are listed in the following table:

SOTA Environmental Sample ID	APCL Sample ID
TB-11	02-03905-6
MW-23-5	02-03905-5
MW-23-4	02-03905-1
ER-23	02-03905-4
MW-23-3	02-03905-3
MW-23-2	02-03905-2
MW-23-1	02-03905-7

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),
E314 (Perchlorate, low level),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

(1) 524.2:

Methylene Chloride in the amount of 0.6 μg/L was detected in the Method Blank of batch 02G3239. Similar levels of Methylene Chloride were also detected in the field samples due to lab contamination.

11700

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 2

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code JPL Job #00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☑ regular ☐ rush: ___ days ___ hours Sampled by: MES/TAM

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (524.2)	PERCHLORATE (314.0)	CrVI (7196)	TOTAL Cr (200.8)	Remarks
TB-11	TRIP BLANK	7/18/02	0657	WATER	HCl	2	X				EPA LEVEL IV QA/QC
MW-23-5	MW-23-5		0723		—	1		X			
MW-23-4	MW-23-4		0749		—	2		X	X		MS/MSD
MW-23-4	MW-23-4		0749		HNO_3	2				X	MS/MSD
ER-23	EQUIP. RINSATE		0811		HCl	3	X				
					—	1		X	X		
					HNO_3	1				X	
MW-23-3	MW-23-3		0839		HCl	3	X				
					—	1		X	X		
					HNO_3	1				X	
MW-23-2	MW-23-2		0900		HCl	3	X	X			
					—	1		X	X		
					HNO_3	1				X	
MW-23-1	MW-23-1		0949		HCl	3	X				
MW-23-1	MW-23-1		0949		—	1		X	X		

3005

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☐ Other _____ (Please specify)

Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☐ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C).

Relinquished by [signature] Date/Time 7/18/02 / 1105 Received by [signature] Date/Time 7-18-02 / 1105

Relinquished by [signature] Date/Time 7/18/02 / 1127 Received by [signature] Date/Time 7/18/02 1127

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 2 of 2

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-~~0812~~-8100 x Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: ~~92~~92127

Bill to: SOTA

Project Name/Code JPL Job #00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☐regular ☐rush: ___ days ___ hours Sampled by: MES/TAM

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	TOTAL Cr (200.8)	Remarks
MW-23-1	MW-23-1	7/18/02	0949	WATER	HNO_3	1	X	EPA LEVEL IV QA/QC

Analysis Items

White – With report
Yellow – Lab copy
Pink – Originator

3005

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___ (E, C or D); ☐Other _____ (Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐None. Tag # _____ Temperature: ☐Room ☐Cold (_____ °C).

Relinquished by _____ Date/Time 7/18/02 1105 Received by _____ Date/Time 7-18-02 1105

Relinquished by _____ Date/Time 7/18/02 1125 Received by _____ Date/Time 7/18/02 1327

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 3905 Client Name/Project: Sota Environmental

1. Sample Arrival

Date/Time Received 7/18/02 1327 Date/Time Opened 7/18/02 1327 By (name): Kenny Chan

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☑ APCL Empl: Richard S.

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☐ Client has Copy? ☑ Signed, dated? By: Mike Sojr 7/18/02
☑ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold ____ # Received 7
☑ CoC/Docs Zip-Locked under lid? ☐ Compos.#: __ ☑ #Samples OK?
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): ____

3. Shipping Container/Cooler

☑ Cooler Used? # of 1 Cooled by: ☑ Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Temp °C 3.7

(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).

Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ pH <2 ☐ pH >12

If Not, pH = ____ Preserved by: ☐ Client ☐ APCL ☐ Third Party ____

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☑ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr
☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☑ Intact? ☐ Broken? ☐ Documented? Number: ____

Type: ☑ plastic ☑ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☑ Quantity OK? ☐ Leaking? ☐ Anomaly?
☑ Caps tight? ☐ Air Bubbles? ☐ Anomaly?

Labels: ☑ Unique ID? ☑ Date/Time ☐ Preserved?

7. Turn Around Time

☐ RUSH TAT: ____ ☑ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☑ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: ____
☐ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☑ ALL OK? (if not, attach docs) ☐ Client Contact? (Name:____)Date/Time:____

Received/Checked by: Kenny Chan Date: 18 Jul 2002 Time: 8:41 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [neal.texfiles]smprcl.tex

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

02-03905 (1288_ 386) (4858100_ 386)

07/18/02

Part 1: General Information

☐	Company Information	Name:	*SOTA Environmental*
		Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
☐	Project Information	Project Description:	*JPL*
		Project #:	*00HW019*
☐	Billing Information	P.O. #:	
		Bill Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
		Lab Project ID:	*2002_0002*
		Client Database #:	*01*
☐	Receiving Information	Who Received Sample?	*Kenny Chan*
		Receiving Date/Time:	*07/18/02 1327*
		COC No.	
☐	Shipping Information	Shipping Company	*APCL pick up*
		Packing Information:	*Cooler/Ice Chester*
		Cooler Temperature:	*3.7 °C*
☐	Container Information	Container Provider:	*Client*
☐	Sampling Information	Sampling Person:	
		Sampling Company:	*Client*
☐	Turn-Around-Time Option:		*Rush 5 working day(s)*
☐	QC Option:		*NEESA D*
☐	Disposal Option:		*Not specify*

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont-tainer	Preser-vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	TB-11	VOC	02-03905-6	W	V	C	40	2	G	071802	N	0	7	☐
2	MW-23-5	Perch	02-03905-5	W	V	C	500	1	G	071802	N	0	7	☐
3	MW-23-4	CRVI/Perch	02-03905-1	W	P		500	2	G	071802	N	0	7	☐
4	ER-23	VOC	02-03905-4-α	W	V	C	40	3	G	071802	N	0	7	☐
	ER-23	CRVI/Perch	02-03905-4-β	W	P		500	1	G	071802	N	0	7	☐
5	MW-23-3	VOC	02-03905-3-α	W	V	C	40	3	G	071802	N	0	7	☐
	MW-23-3	CRVI/Perch	02-03905-3-β	W	P		500	1	G	071802	N	0	7	☐
6	MW-23-2	VOC	02-03905-2-α	W	V	C	40	3	G	071802	N	0	7	☐
	MW-23-2	CRVI/Perch	02-03905-2-β	W	P		500	1	G	071802	N	0	7	☐
7	MW-23-1	VOC	02-03905-7-α	W	V	C	40	3	G	071802	N	0	7	☐
	MW-23-1	CRVI/Perch	02-03905-7-β	W	P		500	1	G	071802	N	0	7	☐

Part 3: Analysis Information

Test Items:

☐	*524.2*	Volatile Organic Compounds
☐	*7196*	Chromium (VI)
☐	*300.0*	Perchlorate, low level
☐	*200.7/6010*	Sodium, Na, by ICP
☐	*200.7/6010*	Potassium, K, by ICP
☐	*200.7/6010*	Calcium, Ca, by ICP
☐	*200.7/6010*	Magnesium, Mg, by ICP
☐	*200.7/6010*	Iron, Fe, by ICP
☐	*300.0*	Sulfate (SO_4^{--}), by IC
☐	*300.0/SM4500NO3*	Nitrate (NO_3^-) as N by IC
☐	*300.0*	Chloride Cl^- by IC
☐	*SM2320B*	Carbonate
☐	*SM2320B*	Bicarbonate
☐	*9040/150.1*	pH
☐	*160.1*	Solids, Total Dissolved (TDS)
☐	*206.2/7060*	Arsenic, As, by GFAA
☐	*310.1*	Alkalinity
☐	*PAH-SIM*	PAH (NOAA)

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	524.2	CHROMIUM	PERCHL	NA	K	CA	MG	FE

1	TB-11	VOC	02-03905-6	W	X			☐
2	MW-23-5	Perch	02-03905-5	W			X	☐
3	MW-23-4	CRVI/Perch	02-03905-1	W		X	X	☐
4	ER-23	VOC	02-03905-4-α	W	X			☐
	ER-23	CRVI/Perch	02-03905-4-β	W		X	X	☐
5	MW-23-3	VOC	02-03905-3-α	W	X			☐
	MW-23-3	CRVI/Perch	02-03905-3-β	W		X	X	☐
6	MW-23-2	VOC	02-03905-2-α	W	X			☐
	MW-23-2	CRVI/Perch	02-03905-2-β	W		X	X	☐
7	MW-23-1	VOC	02-03905-7-α	W	X			☐
	MW-23-1	CRVI/Perch	02-03905-7-β	W		X	X	☐

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	SO4	NO3	CL	CARBONATE	BICARBON	PH	TDS	AS	
1	TB-11	VOC	02-03905-6	W									☐
2	MW-23-5	Perch	02-03905-5	W									☐
3	MW-23-4	CRVI/Perch	02-03905-1	W									☐
4	ER-23	VOC	02-03905-4-α	W									☐
	ER-23	CRVI/Perch	02-03905-4-β	W									☐
5	MW-23-3	VOC	02-03905-3-α	W									☐
	MW-23-3	CRVI/Perch	02-03905-3-β	W									☐
6	MW-23-2	VOC	02-03905-2-α	W									☐
	MW-23-2	CRVI/Perch	02-03905-2-β	W									☐
7	MW-23-1	VOC	02-03905-7-α	W									☐
	MW-23-1	CRVI/Perch	02-03905-7-β	W									☐

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	ALKALIN	SIM	
1	TB-11	VOC	02-03905-6	W			☐
2	MW-23-5	Perch	02-03905-5	W			☐
3	MW-23-4	CRVI/Perch	02-03905-1	W			☐
4	ER-23	VOC	02-03905-4-α	W			☐
	ER-23	CRVI/Perch	02-03905-4-β	W			☐
5	MW-23-3	VOC	02-03905-3-α	W			☐
	MW-23-3	CRVI/Perch	02-03905-3-β	W			☐
6	MW-23-2	VOC	02-03905-2-α	W			☐
	MW-23-2	CRVI/Perch	02-03905-2-β	W			☐
7	MW-23-1	VOC	02-03905-7-α	W			☐
	MW-23-1	CRVI/Perch	02-03905-7-β	W			☐

☐ Client"s Requirement: **PLEASE RUN MS/MSD ON SAMPLE (#1)**

☐ **IF ENOUGH SAMPLE**

☐ **FOR 8270SIM, PLEASE INCLUDE 1,4-DIOXANE**

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

August 1, 2002

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 02-3938 and your project is 00HW019 JPL from Pasadena, CA. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-023938
Collected by: MES/TAM
Collected on: 07/19/02

Received: 07/19/02
Extracted: N/A
Tested: 07/19-23/02
Reported: 07/26/02

Sample Description: Water from Pasadena, CA
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-24 02-03938-1	MW-24-1 02-03938-2	MW-24-2 02-03938-3	MW-24-3 02-03938-4
Dilution Factor				1	100	10	1
PERCHLORATE	314.0	µg/L	4	<4	1,230	246	<4

Component Analyzed	Method	Unit	PQL	Analysis Result ER-24 02-03938-1	MW-24-1 02-03938-2	MW-24-2 02-03938-3
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	21.6	10.6
CHLOROFORM	524.2	µg/L	0.5	<0.5	9.3	4.6
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	0.7	0.7
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	1.3	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	5.9	1.7
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result MW-24-3 02-03938-4	MW-24-4 02-03938-5	TB-12 02-03938-6
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	-
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	-	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-24-3 02-03938-4	MW-24-4 02-03938-5	TB-12 02-03938-6
METHYLENE CHLORIDE	524.2	µg/L	1	-	-	0.7J
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	-	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	-	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level D Data Package Deliverables

General Information

Project: 00HW019 JPL

APCL Service ID: 02-3938

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: JPL/00HW019

For SOTA Environmental

APCL Service No: 02-3938

1. Sample Identification

The sample identifications are listed in the following table:

SOTA Environmental Sample ID	APCL Sample ID
TB-12	02-03938-6
MW-24-4	02-03938-5
MW-24-3	02-03938-4
ER-24	02-03938-1
MW-24-2	02-03938-3
MW-24-1	02-03938-2

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),
300.0 (Perchlorate, low level),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

None

12036

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAVRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code JPL Job # 00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☑ regular ☐ rush: ___ days ___ hours Sampled by: MES/TAM

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOCs (524.2)	Perchlorate (314.0)	Cr VI (7196)	Total Cr (200.8)	Remarks
TB-12	TRIP BLANK	7/9/02	0846	WATER	HCl	2	X				EPA LEVEL IV QA/QC
MW-24-4	MW-24-4		0911		—	1			X		
MW-24-4	MW-24-4		0911		HNO_3	1				X	
MW-24-3	MW-24-3		0944		HCl	9	X				MS/MSD
					—	2		X	X		
					HNO_3	2				X	
ER-24	ER-24		0956		HCl	3	X				
					HNO_3	1				X	
					—	1		X	X		
MW-24-2	MW-24-2		1040		HCl	3	X				
					—	1		X	X		
					HNO_3	1				X	
MW-24-1	MW-24-1		1106		HCl	3	X				
					HNO_3	1		X	X		
					—	1				X	

3938

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☐ Other _____ (Please specify)

Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☐ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C).

Relinquished by [signature] Date/Time 7/9/02 1234 Received by [signature] Date/Time 7/9/02 1234

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory
13760 Magnolia Ave, Chino, CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 3938 Client Name/Project: Sota Environmental

1. Sample Arrival

Date/Time Received: 7/19/02 1234 Date/Time Opened: 7/19/02 1234 By (name): Kenny Chan

Custody Transfer: ☑ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☐ APCL Empl

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☑ Client has Copy? ☑ Signed, dated? By: Mike Sayre 7/19/02

☑ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold: ____ # Received: 6

☑ CoC/Docs Zip-Locked under lid? ☐ Compos.#: ____ ☑ #Samples OK?

☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): ____

3. Shipping Container/Cooler

☑ Cooler Used? # of 1 Cooled by: ☑ Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Temp °C 3.6

(Cooler temperature measured from temp blank if present, otherwise measured from the cooler)

Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ pH <2 ☐ pH >12

If Not, pH = ____ Preserved by: ☐ Client ☐ APCL ☐ Third Party

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☑ Cr^{VI} 24hr ☐ NO_3 48hr ☐ BOD 48hr

☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP

☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☑ Intact? ☐ Broken? ☐ Documented? Number: ____

Type: ☑ plastic ☑ glass ☐ Tube: brass/SS ☐ Tedlar Bag

☑ Quantity OK? ☐ Leaking? ☐ Anomaly?

☑ Caps tight? ☐ Air Bubbles? ☐ Anomaly?

Labels: ☑ Unique ID? ☑ Date/Time ☐ Preserved?

7. Turn Around Time

☐ RUSH TAT: ____ ☑ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☑ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: ____

☐ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☐ ALI OK? (if not, attach docs) ☐ Client Contact? (Name: ____)Date/Time: ____

Received/Checked by: Kenny Chan Date: 19 Jul 2002 Time: 8:56 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

02-03938 (1288_ 387) (4858100_ 387)

07/19/02

Part 1: General Information

☐ Company Information	Name:	*SOTA Environmental*
	Address:	*16835 W. Bernardo Dr. Ste. 212 ,San Diego ,CA 92127*
☐ Project Information	Project Description:	*IPL*
	Project #:	*00HW019*
☐ Billing Information	P.O. #:	
	Bill Address:	*16835 W. Bernardo Dr. Ste. 212 ,San Diego ,CA 92127*
	Lab Project ID:	*2002.0002*
	Client Database #:	*01*
☐ Receiving Information	Who Received Sample?	*Kenny Chan*
	Receiving Date/Time:	*07/19/02 1234*
	COC No.	
☐ Shipping Information	Shipping Company	*by Client*
	Packing Information:	*Cooler/Ice Chester*
	Cooler Temperature:	*3.6 °C*
☐ Container Information	Container Provider:	*Client*
☐ Sampling Information	Sampling Person:	
	Sampling Company:	*Client*
☐ Turn-Around-Time Option:		*Rush 5 working day(s)*
☐ QC Option:		*NEESA D*
☐ Disposal Option:		*Not specify*

Part 2: Sample Information

Seq #	Sample ID (as on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Container	Preservative	Vol. ml Amt. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	TB-12	524.2	02-03938-6	W	V	C	40	2	G	071902	N	0	7	☐
2	MW-24-4	CR VI	02-03938-5	W	P		500	1	G	071902	N	0	7	☐
3	MW-24-3	524.2	02-03938-4-α	W	V	C	40	3	G	071902	N	0	7	☐
	MW-24-3	CRVI/Perch	02-03938-4-β	W	P		500	2	G	071902	N	0	7	☐
4	EB-24	524.2	02-03938-1-α	W	V	C	40	3	G	071902	N	0	7	☐
	EB-24	CRVI/Perch	02-03938-1-β	W	P		500	2	G	071902	N	0	7	☐
5	MW-24-2	524.2	02-03938-3-α	W	V	C	40	3	G	071902	N	0	7	☐
	MW-24-2	CRVI/Perch	02-03938-3-β	W	P		500	1	G	071902	N	0	7	☐
6	MW-24-1	524.2	02-03938-2-α	W	V	C	40	3	G	071902	N	0	7	☐
	MW-24-1	CRVI/Perch	02-03938-2-β	W	P		500	1	G	071902	N	0	7	☐

Part 3: Analysis Information

Test Items

☒ *524.2*	Volatile Organic Compounds
☒ *7196*	Chromium (VI)
☒ *300.0*	Perchlorate, low level
☐ *200.7/6010*	Sodium, Na, by ICP
☐ *200.7/6010*	Potassium, K, by ICP
☐ *200.7/6010*	Calcium, Ca, by ICP
☐ *200.7/6010*	Magnesium, Mg, by ICP
☐ *200.7/6010*	Iron, Fe, by ICP
☐ *300.0*	Sulfate (SO_4^{--}), by IC
☐ *300.0/SM4500NO3*	Nitrate (NO_3^-) as N by IC
☐ *300.0*	Chloride Cl^- by IC
☐ *SM2320B*	Carbonate
☐ *SM2320B*	Bicarbonate
☐ *9040/150.1*	pH
☐ *160.1*	Solids, Total Dissolved (TDS)
☐ *200.2/7060*	Arsenic, As, by GFAA
☐ *310.1*	Alkalinity
☐ *PAH-SIM*	PAH (NOAA)

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	524.2	CHROMIUM	PERCHL	NA	K	CA	MG	FE	
1	TB-12	524.2	02-03938-6	W	X								☐

2	MW-24-4	CR VI	02-03938-5	W		X			☐
3	MW-24-3	524.2	02-03938-4-α	W	X				☐
	MW-24-3	CRVI/Perch	02-03938-4-β	W		X	X		☐
4	ER-24	524.2	02-03938-1-α	W	X				☐
	ER-24	CRVI/Perch	02-03938-1-β	W		X	X		☐
5	MW-24-2	524.2	02-03938-3-α	W	X				☐
	MW-24-2	CRVI/Perch	02-03938-3-β	W		X	X		☐
6	MW-24-1	524.2	02-03938-2-α	W	X				☐
	MW-24-1	CRVI/Perch	02-03938-2-β	W		X	X		☐

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	SO4	NO3	CL	CARBONATE	BICARBON	PH	TDS	AS	
1	TB-12	524.2	02-03938-6	W									☐
2	MW-24-4	CR VI	02-03938-5	W									☐
3	MW-24-3	524.2	02-03938-4-α	W									☐
	MW-24-3	CRVI/Perch	02-03938-4-β	W									☐
4	ER-24	524.2	02-03938-1-α	W									☐
	ER-24	CRVI/Perch	02-03938-1-β	W									☐
5	MW-24-2	524.2	02-03938-3-α	W									☐
	MW-24-2	CRVI/Perch	02-03938-3-β	W									☐
6	MW-24-1	524.2	02-03938-2-α	W									☐
	MW-24-1	CRVI/Perch	02-03938-2-β	W									☐

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	ALKALIN	SIM	
1	TB-12	524.2	02-03938-6	W		☐	
2	MW-24-4	CR VI	02-03938-5	W		☐	
3	MW-24-3	524.2	02-03938-4-α	W		☐	
	MW-24-3	CRVI/Perch	02-03938-4-β	W		☐	
4	ER-24	524.2	02-03938-1-α	W		☐	
	ER-24	CRVI/Perch	02-03938-1-β	W		☐	
5	MW-24-2	524.2	02-03938-3-α	W		☐	
	MW-24-2	CRVI/Perch	02-03938-3-β	W		☐	
6	MW-24-1	524.2	02-03938-2-α	W		☐	
	MW-24-1	CRVI/Perch	02-03938-2-β	W		☐	

☐ Client's Requirement: PLEASE RUN MS/MSD ON SAMPLE (#4)

☐ IF ENOUGH SAMPLE

☐ FOR 8270SIM, PLEASE INCLUDE 1,4-DIOXANE

Login By En-Yu Paul Kou

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

August 21, 2002

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 02-3990 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yi Zeng
19835 W. Bernardo Dr. Ste. 212
San Diego, CA 92127
Tel: (858)485-8100 Fax (858)485-0812

Service ID #: 801-023990
Collected by: MES/TAM
Collected on: 07/23/02

Received: 07/23/02
Extracted: N/A
Tested: 07/24-26/02
Reported: 07/31/02

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result MW-13 02-03990-1	MW-16 02-03990-2	MW-13D 02-03990-3	FB-11 02-03990-4
CHROMIUM (VI)	7196	mg/L	0.01	0.010	<0.01	0.010	
Dilution Factor				10	50	10	1
PERCHLORATE	314.0	µg/L	4	206	1,510	205	
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	1.2	4.5	1.3	<0.5
CHLOROFORM	524.2	µg/L	0.5	0.7	5.4	0.8	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1	4.9	3.6	3.6	1.7
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	2.1	1.7	2.1	<0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "--": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Laa
Laboratory Director
Applied P & Ch Laboratory

Level D Data Package Deliverables

General Information

Project: 00HW019 JPL

APCL Service ID: 02-3990

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: JPL/00HW019

For SOTA Environmental

APCL Service No: 02-3990

1. Sample Identification

The sample identifications are listed in the following table:

SOTA Environmental Sample ID	APCL Sample ID
TB-14	02-03990-4
MW-16	02-03990-2
MW-13	02-03990-1
MW-13D	02-03990-3

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),

3. Holding Time

All samples were extracted. digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

None

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code JPL Job # 00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☒ regular ☐ rush: ___ days ___ hours Sampled by: MRS/TAM

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers
TB-14	TRIP BLANK	7/23/02	0946	WATER	HCl	2
MW-16	MW-16		1125		HCl	3
					—	1
					HNO_3	1
MW-13	MW-13		1325		HCl	3
					—	1
					HNO_3	1
MW-13D	MW-13 DUPL.				HCl	3
					—	1
					HNO_3	1

Analysis Items: VOCs (524.2); PERCHLORATE (314.0); Cr VI (7196); TOTAL Cr (200.8)

3990

White With report
Yellow – Lab copy
Pink – Originator

Remarks: EPA LEVEL IV QA/QC

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☐ NEESA ___ (E, C or D); ☐ Other _____ (Please specify)

Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐ Intact; ☒ Broken. Cooler Seal: ☐ Intact; ☐ Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐ Cold (_____ °C).

Relinquished by: _____ Date/Time 7/23/02 1422 Received by: _____ Date/Time 7/23/02 1422

Relinquished by: _____ Date/Time 7/23/02 1727 Received by: _____ Date/Time 7/23/02 1727

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory
13710 Magnolia Ave. Chino, CA 91710
Tel (909) 590-1828 Fax (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: **3990** Client Name/Project: Sota Environmental

1. Sample Arrival

Date/Time Received 7/23/02 1727 Date/Time Opened 7/23/02 1725 By (name) Kenny Chan

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☑ APCL Empl Richard Stinson

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☐ Client has Copy? ☑ Signed, dated? By: Mike Sayre
☑ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold ____ # Received 4
☑ CoC/Docs Zip-Locked under lid? ☐ Compos.#. ☑ #Samples OK?
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs)

3. Shipping Container/Cooler

☑ Cooler Used? # of 1 Cooled by: ☑ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp °C 3.6
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler)
Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ pH < 2 ☐ pH >12
If Not, pH = ____ Preserved by: ☐ Client ☐ APCL ☐ Third Party

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☑ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr
☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☑ Intact? ☐ Broken? ☐ Documented? Number: ____
Type: ☑ plastic ☑ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☑ Quantity OK? ☐ Leaking? ☐ Anomaly?
☑ Caps tight? ☐ Air Bubbles? ☐ Anomaly?
Labels ☑ Unique ID? ☑ Date/Time ☐ Preserved?

7. Turn Around Time

☐ RUSH TAT: ____ ☑ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☑ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: ____
☐ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☑ ALL OK? (if not, attach docs) ☐ Client Contact? (Name: ____)Date/Time: ____

Received/Checked by: Kenny Chan Date: 23 Jul 2002 Time: 8:55 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous

Document File: [real texfiles]simprel.tex.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

02-03990 (1288_ 389) (4858100 389)

07/24/02

Part 1: General Information

☐ Company Information	Name:	*SOTA Environmental*
	Address:	*10835 W. Bernardo Dr. Ste. 212 ,San Diego ,CA 92127*
☐ Project Information	Project Description:	*IPL*
	Project #:	*00IIW019*
☐ Billing Information	P.O. #:	
	Bill Address:	*10835 W. Bernardo Dr. Ste. 212 ,San Diego ,CA 92127*
	Lab Project ID:	*2002_0002*
	Client Database #:	*01*
☐ Receiving Information	Who Received Sample?	*Kenny Chan*
	Receiving Date/Time:	*07/23/02 17:27*
	COC No.	
☐ Shipping Information	Shipping Company	*APCL pick up*
	Packing Information:	*Cooler/Ice Chester*
	Cooler Temperature:	*3.6 °C*
☐ Container Information	Container Provider:	*Client*
☐ Sampling Information	Sampling Person:	*MES/TAM*
	Sampling Company:	*Client*
☐ Turn-Around-Time Option:		*Rush 5 working day(s)*
☐ QC Option:		*NEESA D*
☐ Disposal Option:		*Not specify*

Part 2: Sample Information

Seq #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Container	Preservative	Volume Amt. g	# of Replica	Condition G, L, B	Collected mmddyy	Holat ?	Composite Group	TAT Days	
1	TB-14	VOC	02-03990-4	W	V	C	40	2	G	072302	N	0	7	☐
2	MW-16	VOC	02-03990-2-a	W	V	C	40	3	G	072302	N	0	7	☐
	MW-16	CRVI/Perch	02-03990-2-b	W	P		500	1	G	072302	N	0	7	☐
3	MW-15	VOC	02-03990-1-a	W	V	C	40	3	G	072302	N	0	7	☐
	MW-15	CRVI/Perch	02-03990-1-b	W	P		500	1	G	072302	N	0	7	☐
4	MW-14D	VOC	02-03990-3-a	W	V	C	40	3	G	072302	N	0	7	☐
	MW-14D	CRVI/Perch	02-03990-3-b	W	P		500	1	G	072302	N	0	7	☐

Part 3: Analysis Information

Test Items:

☑	*524.2*	Volatile Organic Compounds
☑	*7196*	Chromium (VI)
☑	*300.0*	Perchlorate, low level
☐	*200.7/6010*	Sodium, Na, by ICP
☐	*200.7/6010*	Potassium, K, by ICP
☐	*200.7/6010*	Calcium, Ca, by ICP
☐	*200.7/6010*	Magnesium, Mg, by ICP
☐	*200.7/6010*	Iron, Fe, by ICP
☐	*300.0*	Sulfate (SO_4^{--}), by IC
☐	*300.0/SM4500NO3*	Nitrate (NO_3^-) as N by IC
☐	*300.0*	Chloride Cl^- by IC
☐	*SM2320B*	Carbonate
☐	*SM2320B*	Bicarbonate
☐	*9040/150.1*	pH
☐	*160.1*	Solids, Total Dissolved (TDS)
☐	*206.2/7060*	Arsenic, As, by GFAA
☐	*310.1*	Alkalinity
☐	*PAH-SIM*	PAH (NOAA)

Seq #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	524.2	CHROMIUM	PERCHL	NA	K	CA	MG	FE
1	TB-14	VOC	02-03990-4	W	X							
2	MW-16	VOC	02-03990-2-a	W	X							
	MW-16	CRVI/Perch	02-03990-2-b	W		X	X					
3	MW-15	VOC	02-03990-1-a	W	X							

	MW-1S	CRVI/Perch	02-03988-1-3	W		X	X		☐
4	MW-13D	VOC	02-03990-3-a	W	X				☐
	MW-13D	CRVI/Perch	02-03990-3-3	W		X	X		☐

Seq #	Client's Sample ID as given on COC's	Sample Sub-ID	APCL Sample ID	Matrix	SO4	NO3	CL	CARBONATE	BICARBON	PH	TDS	AS	
1	TB-13	VOC	02-03990-4	W									☐
2	MW-1S	VOC	02-03990-2-a	W									☐
	MW-1S	CRVI/Perch	02-03990-2-3	W									☐
3	MW-1I	VOC	02-03990-1-a	W									☐
	MW-1S	CRVI/Perch	02-03990-1-3	W									☐
4	MW-13D	VOC	02-03990-3-a	W									☐
	MW-13D	CRVI/Perch	02-03990-3-3	W									☐

Seq #	Client's Sample ID as given on COC's	Sample Sub-ID	APCL Sample ID	Matrix	ALKALIN	SIM	
1	TB-13	VOC	02-03990-4	W			☐
2	MW-1S	VOC	02-03990-2-a	W			☐
	MW-1S	CRVI/Perch	02-03990-2-3	W			☐
3	MW-1I	VOC	02-03990-1-a	W			☐
	MW-1S	CRVI/Perch	02-03990-1-3	W			☐
4	MW-13D	VOC	02-03990-3-a	W			☐
	MW-13D	CRVI/Perch	02-03990-3-3	W			☐

☐ Client's Requirement: PLEASE RUN ~~MS/MSD ON SAMPLE #~~

☐ IF ENOUGH SAMPLE

☐ FOR 8270SIM, PLEASE INCLUDE 1,4-DIOXANE

Login By En-Yu Paul Kou

Check By