Tetra Tech EM Inc.

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May 23, 2003

Mr. G. Patrick Brooks, R.G.
Remedial Project Manager
Naval Facilities Engineering Command
Southwest Division
1230 Columbia Street, Suite 1100
San Diego, CA 92101

Subject: **User Data Package 5 – Results of the Post-Injection Round 3 Groundwater Sampling**
Parcel C Treatability Study Support
Hunters Point Shipyard, San Francisco, California
Contract Number N68711-00-D-0005, Delivery Order 0013

Dear Mr. Brooks:

Between March 18 and March 21, 2003, Tetra Tech EM Inc. (Tetra Tech) completed post-injection round 3 groundwater sampling for the Ferox^{sm} injection technology demonstration at Parcel C, Remedial Unit C4, of Hunters Point Shipyard. This work was conducted under the above-referenced delivery order from the U.S. Department of the Navy (Navy), Naval Facilities Engineering Command, Southwest Division, under the Indefinite Quantity Contract for Architectural-Engineering Services to Provide CERCLA/RCRA/UST Studies.

The technology demonstration project is being conducted in association with, and partially funded by, the Navy's Alternative Restoration Technology Team, Naval Facilities Engineering Service Center (NFESC). This user data package summarizes the results of field activities, which included groundwater sampling at 19 monitoring wells and measurement of groundwater levels at 24 monitoring wells.

Enclosure 1 of this letter report provides copies of the groundwater sampling forms, Enclosure 2 provides copies of the chain-of-custody forms for the samples, Enclosure 3 provides the groundwater level measurement forms, Enclosure 4 provides the analytical laboratory reports, and Enclosure 5 provides the data validation reports. Groundwater sampling, groundwater level measurement, laboratory analysis, and data validation are discussed below.

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GROUNDWATER SAMPLING

Tetra Tech collected groundwater samples from 19 monitoring wells between March 18 and March 21, 2003. Samples were collected from the following monitoring wells:

IR28MW211F	IR28MW275F	IR28MW311A	IR28MW341F	IR28MW342F
IR28MW351F	IR28MW355F	IR28MW356F	IR28MW357F	IR28MW358F
IR28MW359F	IR28MW360F	IR28MW361F	IR28MW362F (F2)	IR28MW932F
IR28MW933F5	IR28MW934F5	IR28IW938F	IR28IW939F	

Samples were sent to an off-site laboratory for a subset of the following analyses: volatile organic compounds (VOC), total iron, dissolved iron, dissolved arsenic, dissolved manganese, alkalinity, chloride, nitrate, ethane, ethene, and dissolved hydrogen. Table 1 at the end of this letter summarizes specific sampling requirements. In addition, groundwater was analyzed during purging for the following parameters: temperature, specific conductance, dissolved oxygen, pH, oxidation-reduction potential, and turbidity. Enclosures 1 and 2 present the groundwater sampling forms and chain-of-custody records.

GROUNDWATER LEVEL MEASUREMENT

Tetra Tech measured groundwater levels in 24 monitoring wells on March 18, 2003, prior to the commencement of groundwater sampling. Water level measurements were collected from the following wells:

IR28MW211F	IR28MW275F	IR28MW310F	IR28MW311A	IR28MW341F
IR28MW342F	IR28MW351F	IR28MW355F	IR28MW356F	IR28MW357F
IR28MW358F	IR28MW359F	IR28MW360F	IR28MW361F	IR28MW362F
IR28MW393F	IR28MW932F	IR28MW935F	IR28MW936F	IR28MW937F
IR28IW938F	IR28IW939F	IR28MW940F	IR28MW402F	

Enclosure 3 provides the groundwater level measurement forms.

LABORATORY ANALYSIS

Groundwater samples were sent for analysis to Columbia Analytical Services in Redding, California, a pre-qualified subcontractor laboratory. The laboratory was approved by NFESC and evaluated by Tetra Tech to ensure that it can meet the technical requirements of the laboratory scope of work and produce data of acceptable quality. Table 2 at the end of this letter summarizes the validated analytical results. Enclosure 4 provides the analytical laboratory reports for the post-injection round 3 sampling.

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DATA VALIDATION

Data generated during field and laboratory activities must be validated and verified to ensure that they are defensible and of acceptable quality. An independent third-party contractor validated laboratory data for metals and VOCs. Table 2 at the end of this letter summarizes the validated analytical results. Enclosure 5 provides the data validation reports for the post-injection round 3 sampling.

If you have any questions or comments about this user data package, please contact me at (215) 656-8720 or Doug Bielskis at (415) 222-8242.

Sincerely,

John McCall, P.E.
Project Manager

Enclosures:
1. Groundwater Sampling Forms
2. Chain-of-Custody Forms
3. Groundwater Level Measurement Forms
4. Analytical Laboratory Reports
5. Data Validation Reports

cc: Dr. D.B. Chan, NFESC
Mr. Keith Forman, Southwest Division
Mr. Dave DeMars, Southwest Division
Ms. Diane Silva (Admin. Record), Southwest Division
Mr. Doug Bielskis, Tetra Tech EM Inc.
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TABLE 1: GROUNDWATER SAMPLING REQUIREMENTS

User Data Package 5, Parcel C Treatability Study Support
Hunters Point Shipyard, San Francisco, California

Monitoring Well	Volatile Organic Compounds	Total Iron	Dissolved Iron	Dissolved Arsenic	Dissolved Manganese	Nitrate	Chloride	Alkalinity	Ethane	Ethene	Dissolved Hydrogen
IR28MW211F	X	X	X	--	--	--	X	X	X	X	X
IR28MW275F	X	X	X	--	--	--	X	X	X	X	X
IR28MW311A	X	X	X	--	--	--	X	X	X	X	X
IR28MW341F	X	X	X	--	--	X	X	X	X	X	X
IR28MW342F	X	X	X	--	--	--	X	X	X	X	X
IR28MW351F	X	X	X	X	X	--	X	X	X	X	X
IR28MW355F	X	X	X	X	X	--	X	X	X	X	X
IR28MW356F	X	X	X	X	X	--	X	X	X	X	X
IR28MW357F	X	X	X	X	X	--	X	X	X	X	X
IR28MW358F	X	X	X	X	X	--	X	X	X	X	X
IR28MW359F	X	X	X	--	--	X	X	X	X	X	X
IR28MW360F	X	X	X	X	X	X	X	X	X	X	X
IR28MW361F	X	X	X	--	--	X	X	X	X	X	X
IR28MW362F (F2)	X	X	X	--	--	X	X	X	X	X	X
IR28MW932F	X	X	X	X	X	--	X	X	X	X	X
IR28MW933F5	X	X	X	--	--	X	X	X	X	X	X
IR28MW934F5	X	X	X	--	--	--	X	X	X	X	X
IR28IW938F	X	X	X	X	X	--	X	X	X	X	X
IR28IW939F	X	X	X	X	X	--	X	X	X	X	X
Total	**19**	**19**	**19**	**9**	**9**	**6**	**19**	**19**	**19**	**19**	**19**

Note:

-- Analyte was not sampled for at this location.

TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28IW938F	IR28IW938F (DUP)	IR28MW211F	IR28MW275F	IR28MW311A	IR28MW311A (DUP)
Sample Date	03/19/2003	03/19/2003	03/21/2003	03/19/2003	03/18/2003	03/18/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H014	0312H015	0312H024	0312H017	0312H002	0312H003
VOLATILE ORGANIC COMPOUNDS (µg/L)						
1,1,1-TRICHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-TETRACHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 1	< 1	< 1	< 1	* 0.8 J *	* 0.9 J *
1,1,2-TRICHLOROETHANE	* 0.5 J *	* 0.6 J *	* 17 *	< 1	< 1	< 1
1,1-DICHLOROETHANE	< 1	< 1	* 0.5 J *	< 1	< 1	< 1
1,1-DICHLOROETHENE	< 1	< 1	* 2 *	< 1	< 1	< 1
1,2,3-TRICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-TRICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DIBROMO-3-CHLOROPROPANE	< 5	< 5	< 5	< 5	< 5	< 5
1,2-DIBROMOETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DICHLOROETHANE	* 1 *	* 1 *	* 43 J *	< 1	* 0.4 J *	< 1
1,2-DICHLOROPROPANE	< 1	< 1	* 0.7 J *	< 1	< 1	< 1
1,3-DICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,4-DICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
2-BUTANONE	< 5	< 5	< 5	< 5	< 5	< 5
2-HEXANONE	< 5	< 5	< 5	< 5	< 5	< 5
4-METHYL-2-PENTANONE	< 5	< 5	* 0.5 J *	< 5	< 5	< 5
ACETONE	< 5	< 5	< 5	< 5	< 5	< 5
BENZENE	< 1	< 1	* 0.7 J *	< 1	< 1	< 1
BROMOCHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
BROMODICHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
BROMOFORM	< 1	< 1	< 1	< 1	< 1	< 1
BROMOMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
CARBON DISULFIDE	< 1	* 0.6 J *	* 0.3 J *	< 1	< 1	< 1
CARBON TETRACHLORIDE	< 1	< 1	< 1	< 1	< 1	< 1
CHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
CHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
CHLOROFORM	< 1	< 1	* 11 *	* 2 *	< 1	< 1
CHLOROMETHANE	* 0.3 J *	< 1	* 0.5 J *	< 1	< 1	< 1

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TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28IW938F	IR28IW938F (DUP)	IR28MW211F	IR28MW275F	IR28MW311A	IR28MW311A (DUP)
Sample Date	03/19/2003	03/19/2003	03/21/2003	03/19/2003	03/18/2003	03/18/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H014	0312H015	0312H024	0312H017	0312H002	0312H003
VOLATILE ORGANIC COMPOUNDS (µg/L)						
CIS-1,2-DICHLOROETHENE	* 0.9 J *	* 0.9 J *	* 15 *	* 3 *	* 2 *	* 2 *
CIS-1,3-DICHLOROPROPENE	< 1	< 1	< 1	< 1	< 1	< 1
DIBROMOCHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
DICHLORODIFLUOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
ETHYLBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
ISOPROPYLBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
METHYLENE CHLORIDE	< 2	< 2	< 16	< 2	< 2	< 2
STYRENE	< 1	< 1	< 1	< 1	< 1	< 1
TERT-BUTYL METHYL ETHER	< 1	< 1	< 1	< 1	< 1	< 1
TETRACHLOROETHENE	< 1	< 1	* 0.5 J *	* 30 *	< 1	< 1
TOLUENE	< 1	< 1	< 1	< 1	< 1	< 1
TRANS-1,2-DICHLOROETHENE	< 1	< 1	< 1	< 1	< 1	< 1
TRANS-1,3-DICHLOROPROPENE	< 1	< 1	< 1	< 1	< 1	< 1
TRICHLOROETHENE	* 23 *	* 22 *	* 850 *	* 85 *	* 4 *	* 4 *
TRICHLOROFLUOROMETHANE	< 1	< 1	< 1	< 1	* 0.9 J *	* 0.9 J *
VINYL CHLORIDE	< 1	< 1	* 0.8 J *	< 1	< 1	< 1
XYLENE (TOTAL)	< 1	< 1	< 1	< 1	< 1	< 1
TOTAL METALS (µg/L)						
IRON	* 30,000 *	* 29,000 *	* 460 *	* 60 J *	* 51 J *	* 67 J *
DISSOLVED METALS (µg/L)						
ARSENIC	< 1	< 2	NA	NA	NA	NA
IRON	* 6,500 *	* 13,000 *	* 150 *	< 8	< 14	< 31
MANGANESE	* 860 *	* 1,400 *	NA	NA	NA	NA
DISSOLVED GASES (µg/L)						
ETHANE	* 5 *	NA	* 77 *	< 0.3	* 0.4 J *	NA
ETHENE	* 3 *	NA	* 52 *	< 0.4	* 0.4 J *	NA
HYDROGEN IN WATER	* 31 *	NA	< 5	< 5	< 5	NA

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TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28IW938F	IR28IW938F (DUP)	IR28MW211F	IR28MW275F	IR28MW311A	IR28MW311A (DUP)
Sample Date	03/19/2003	03/19/2003	03/21/2003	03/19/2003	03/18/2003	03/18/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H014	0312H015	0312H024	0312H017	0312H002	0312H003
ANIONS (µg/L)						
CHLORIDE	* 110,000 *	NA	* 200,000 *	* 13,000 *	* 14,000,000 *	NA
ALKALINITY (µg/L)						
TOTAL ALKALINITY	* 38,000 *	NA	* 28,000 *	* 140,000 *	* 260,000 *	NA

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TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW341F	IR28MW342F	IR28MW351F	IR28MW355F	IR28MW356F	IR28MW357F
Sample Date	03/19/2003	03/18/2003	03/18/2003	03/18/2003	03/18/2003	03/18/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H012	0312H008	0312H004	0312H005	0312H006	0312H007
VOLATILE ORGANIC COMPOUNDS (µg/L)						
1,1,1-TRICHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-TETRACHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 1	< 1	* 2 *	< 1	< 1	< 1
1,1,2-TRICHLOROETHANE	* 3 *	* 1 *	< 1	< 1	< 1	< 1
1,1-DICHLOROETHANE	< 1	* 0.4 J *	< 1	< 1	< 1	< 1
1,1-DICHLOROETHENE	* 0.5 J *	* 0.6 J *	< 1	< 1	< 1	< 1
1,2,3-TRICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-TRICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DIBROMO-3-CHLOROPROPANE	< 5	< 5	< 5	< 5	< 5	< 5
1,2-DIBROMOETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DICHLOROETHANE	* 4 *	* 10 *	* 0.8 J *	< 1	< 1	< 1
1,2-DICHLOROPROPANE	< 1	* 0.3 J *	< 1	< 1	< 1	< 1
1,3-DICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,4-DICHLOROBENZENE	< 1	< 1	* 0.2 J *	< 1	< 1	< 1
2-BUTANONE	< 5	< 5	< 5	< 5	< 5	< 5
2-HEXANONE	< 5	* 0.4 J *	* 0.4 J *	< 5	< 5	< 5
4-METHYL-2-PENTANONE	< 5	< 5	< 5	< 5	< 5	< 5
ACETONE	< 5	< 5	< 5	< 5	< 5	< 5
BENZENE	< 1	< 1	< 1	< 1	< 1	< 1
BROMOCHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
BROMODICHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
BROMOFORM	< 1	< 1	< 1	< 1	< 1	< 1
BROMOMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
CARBON DISULFIDE	< 1	< 1	< 1	< 1	< 1	< 1
CARBON TETRACHLORIDE	< 1	< 1	* 2 *	< 1	* 5 *	< 1
CHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
CHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
CHLOROFORM	* 5 *	* 13 *	* 3 *	< 1	* 3 *	* 3 *
CHLOROMETHANE	< 1	* 0.3 J *	< 1	* 0.3 J *	< 1	< 1

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TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support
Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW341F	IR28MW342F	IR28MW351F	IR28MW355F	IR28MW356F	IR28MW357F
Sample Date	03/19/2003	03/18/2003	03/18/2003	03/18/2003	03/18/2003	03/18/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H012	0312H008	0312H004	0312H005	0312H006	0312H007
VOLATILE ORGANIC COMPOUNDS (µg/L)						
CIS-1,2-DICHLOROETHENE	* 4 *	* 8 *	* 6 *	< 1	* 6 *	< 1
CIS-1,3-DICHLOROPROPENE	< 1	< 1	< 1	< 1	< 1	< 1
DIBROMOCHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
DICHLORODIFLUOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
ETHYLBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
ISOPROPYLBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
METHYLENE CHLORIDE	< 6	< 4	< 2	< 2	< 2	< 2
STYRENE	< 1	< 1	< 1	< 1	< 1	< 1
TERT-BUTYL METHYL ETHER	< 1	< 1	< 1	< 1	< 1	< 1
TETRACHLOROETHENE	< 1	* 2 *	* 0.5 J *	< 1	< 1	< 1
TOLUENE	< 1	< 1	< 1	< 1	< 1	< 1
TRANS-1,2-DICHLOROETHENE	< 1	< 1	< 1	< 1	< 1	< 1
TRANS-1,3-DICHLOROPROPENE	< 1	< 1	< 1	< 1	< 1	< 1
TRICHLOROETHENE	* 160 *	* 180 *	* 46 *	* 20 *	* 37 *	* 76 *
TRICHLOROFLUOROMETHANE	< 1	< 1	* 4 *	< 1	< 1	< 1
VINYL CHLORIDE	< 1	* 0.7 J *	< 1	< 1	< 1	< 1
XYLENE (TOTAL)	< 1	< 1	< 1	< 1	< 1	< 1
TOTAL METALS (µg/L)						
IRON	* 570 *	* 340 *	* 120 *	* 42 J *	* 22 J *	* 230 *
DISSOLVED METALS (µg/L)						
ARSENIC	NA	NA	< 2	* 8 J *	< 3	< 3
IRON	< 14	* 81 J *	* 63 J *	< 14	< 6	< 13
MANGANESE	NA	NA	* 170 *	* 1 J *	< 1	* 39 *
DISSOLVED GASES (µg/L)						
ETHANE	* 54 *	* 45 *	< 0.3	< 0.3	< 0.3	* 0.5 *
ETHENE	* 19 *	* 17 *	< 0.4	< 0.4	< 0.4	< 0.4
HYDROGEN IN WATER	* 36 *	< 5	< 5	< 5	< 5	< 5

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TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW341F	IR28MW342F	IR28MW351F	IR28MW355F	IR28MW356F	IR28MW357F
Sample Date	03/19/2003	03/18/2003	03/18/2003	03/18/2003	03/18/2003	03/18/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H012	0312H008	0312H004	0312H005	0312H006	0312H007
ANIONS (µg/L)						
CHLORIDE	* 120,000 *	* 99,000 *	* 2,400,000 *	* 71,000 *	* 150,000 *	* 67,000 *
NITRATE AS NITROGEN	< 16	NA	NA	NA	NA	NA
ALKALINITY (µg/L)						
TOTAL ALKALINITY	* 23,000 *	* 70,000 *	* 100,000 *	* 140,000 *	* 160,000 *	* 130,000 *

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TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW358F	IR28MW359F	IR28MW360F	IR28MW361F	IR28MW362F	IR28MW932F
Sample Date	03/19/2003	03/19/2003	03/21/2003	03/19/2003	03/19/2003	03/21/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H011	0312H010	0312H020	0312H016	0312H013	0312H021
VOLATILE ORGANIC COMPOUNDS (µg/L)						
1,1,1-TRICHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-TETRACHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-TRICHLOROETHANE	< 1	< 1	* 0.6 J *	< 1	* 3 *	* 1 *
1,1-DICHLOROETHANE	< 1	< 1	* 0.2 J *	< 1	* 0.2 J *	* 2 *
1,1-DICHLOROETHENE	< 1	< 1	< 1	< 1	< 1	* 0.4 J *
1,2,3-TRICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-TRICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DIBROMO-3-CHLOROPROPANE	< 5	< 5	< 5	< 5	< 5	< 5
1,2-DIBROMOETHANE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,2-DICHLOROETHANE	< 1	< 1	* 4 *	< 1	* 32 *	* 55 *
1,2-DICHLOROPROPANE	< 1	< 1	* 0.2 J *	< 1	* 0.3 J *	* 0.4 J *
1,3-DICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
1,4-DICHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
2-BUTANONE	< 5	< 5	< 5	< 5	< 5	< 5
2-HEXANONE	< 5	< 5	< 5	< 5	< 5	< 5
4-METHYL-2-PENTANONE	< 5	< 5	< 5	< 5	< 5	< 5
ACETONE	< 5	< 5	< 5	< 5	< 5	< 10
BENZENE	< 1	< 1	< 1	< 1	< 1	< 1
BROMOCHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
BROMODICHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
BROMOFORM	< 1	< 1	< 1	< 1	< 1	< 1
BROMOMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
CARBON DISULFIDE	< 1	< 1	< 1	< 1	< 1	< 1
CARBON TETRACHLORIDE	< 1	< 1	* 3 *	< 1	< 1	< 1
CHLOROBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
CHLOROETHANE	< 1	< 1	< 1	< 1	< 1	< 1
CHLOROFORM	< 1	* 2 *	* 25 *	* 6 *	< 1	* 34 *
CHLOROMETHANE	< 1	* 0.3 J *	< 1	< 1	* 0.4 J *	< 1

Notes to table on page 13

TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW358F	IR28MW359F	IR28MW360F	IR28MW361F	IR28MW362F	IR28MW932F
Sample Date	03/19/2003	03/19/2003	03/21/2003	03/19/2003	03/19/2003	03/21/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H011	0312H010	0312H020	0312H016	0312H013	0312H021
VOLATILE ORGANIC COMPOUNDS (µg/L)						
CIS-1,2-DICHLOROETHENE	< 1	< 1	* 11 *	* 2 *	* 0.3 J *	* 43 *
CIS-1,3-DICHLOROPROPENE	< 1	< 1	< 1	< 1	< 1	< 1
DIBROMOCHLOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
DICHLORODIFLUOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
ETHYLBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
ISOPROPYLBENZENE	< 1	< 1	< 1	< 1	< 1	< 1
METHYLENE CHLORIDE	< 2	< 2	< 2	< 3	* 15 *	< 2
STYRENE	< 1	< 1	< 1	< 1	< 1	< 1
TERT-BUTYL METHYL ETHER	< 1	< 1	< 1	< 1	< 1	< 1
TETRACHLOROETHENE	< 1	< 1	* 10 *	< 1	< 1	* 1 *
TOLUENE	< 1	< 1	< 1	< 1	< 1	< 1
TRANS-1,2-DICHLOROETHENE	< 1	< 1	< 1	< 1	< 1	< 1
TRANS-1,3-DICHLOROPROPENE	< 1	< 1	< 1	< 1	< 1	< 1
TRICHLOROETHENE	* 0.9 J *	* 47 *	* 630 *	* 83 *	* 4 *	* 84 *
TRICHLOROFLUOROMETHANE	< 1	< 1	< 1	< 1	< 1	< 1
VINYL CHLORIDE	< 1	< 1	< 1	< 1	< 1	* 4 *
XYLENE (TOTAL)	< 1	< 1	< 1	< 1	< 1	< 1
TOTAL METALS (µg/L)						
IRON	* 130 *	* 110 *	* 190 *	* 2,900 *	* 310 *	* 470 *
DISSOLVED METALS (µg/L)						
ARSENIC	< 5	NA	* 3 J *	NA	NA	< 1
IRON	< 7	< 8	< 8	* 63 J *	* 58 J *	* 190 *
MANGANESE	* 2 J *	NA	* 51 *	NA	NA	* 680 *
DISSOLVED GASES (µg/L)						
ETHANE	< 0.3	< 0.3	* 4 *	* 6 *	* 12 *	* 89 *
ETHENE	< 0.4	< 0.4	< 0.4	* 2 *	* 5 *	* 49 *
HYDROGEN IN WATER	< 5	< 5	< 5	< 5	* 160 *	< 5

Notes to table on page 13

TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW358F	IR28MW359F	IR28MW360F	IR28MW361F	IR28MW362F	IR28MW932F
Sample Date	03/19/2003	03/19/2003	03/21/2003	03/19/2003	03/19/2003	03/21/2003
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Sample ID	0312H011	0312H010	0312H020	0312H016	0312H013	0312H021
ANIONS (µg/L)						
CHLORIDE	* 48,000 *	* 68,000 *	* 81,000 *	* 90,000 *	* 130,000 *	* 110,000 *
NITRATE AS NITROGEN	NA	* 3,000 *	* 1,900 *	< 16	< 16	NA
ALKALINITY (µg/L)						
TOTAL ALKALINITY	* 190,000 *	* 150,000 *	* 85,000 *	* 120,000 *	* 19,000 *	* 98,000 *

Notes to table on page 13

TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support
Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW933F5	IR28MW934F5	IR28MW939F
Sample Date	03/19/2003	03/21/2003	03/21/2003
Matrix	WATER	WATER	WATER
Sample ID	0312H010Z	0312H023	0312H022
VOLATILE ORGANIC COMPOUNDS (µg/L)			
1,1,1-TRICHLOROETHANE	< 1	< 1	< 1
1,1,2,2-TETRACHLOROETHANE	< 1	< 1	< 1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 1	< 1	< 1
1,1,2-TRICHLOROETHANE	< 1	* 1 *	* 8 *
1,1-DICHLOROETHANE	< 1	< 1	* 1 *
1,1-DICHLOROETHENE	< 1	< 1	* 2 *
1,2,3-TRICHLOROBENZENE	< 1	< 1	< 1
1,2,4-TRICHLOROBENZENE	< 1	< 1	< 1
1,2-DIBROMO-3-CHLOROPROPANE	< 5	< 5	< 5
1,2-DIBROMOETHANE	< 1	< 1	< 1
1,2-DICHLOROBENZENE	< 1	< 1	< 1
1,2-DICHLOROETHANE	< 1	* 0.6 J *	* 42 *
1,2-DICHLOROPROPANE	< 1	* 0.4 J *	* 1 *
1,3-DICHLOROBENZENE	< 1	< 1	< 1
1,4-DICHLOROBENZENE	< 1	< 1	< 1
2-BUTANONE	< 5	< 5	< 5
2-HEXANONE	< 5	< 5	< 5
4-METHYL-2-PENTANONE	< 5	< 5	< 5
ACETONE	< 5	< 5	< 5
BENZENE	< 1	< 1	* 1 *
BROMOCHLOROMETHANE	< 1	< 1	< 1
BROMODICHLOROMETHANE	< 1	< 1	< 1
BROMOFORM	< 1	< 1	< 1
BROMOMETHANE	< 1	< 1	< 1
CARBON DISULFIDE	< 1	< 1	< 1
CARBON TETRACHLORIDE	* 1 *	* 31 *	< 1
CHLOROBENZENE	< 1	< 1	< 1
CHLOROETHANE	< 1	< 1	< 1
CHLOROFORM	* 3 *	* 80 *	* 83 *
CHLOROMETHANE	* 0.5 J *	< 1	* 0.5 J *

Notes to table on page 13

TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support
Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW933F5	IR28MW934F5	IR28MW939F
Sample Date	03/19/2003	03/21/2003	03/21/2003
Matrix	WATER	WATER	WATER
Sample ID	0312H010Z	0312H023	0312H022
VOLATILE ORGANIC COMPOUNDS (µg/L)			
CIS-1,2-DICHLOROETHENE	* 0.6 J *	* 41 *	* 21 *
CIS-1,3-DICHLOROPROPENE	< 1	< 1	< 1
DIBROMOCHLOROMETHANE	< 1	< 1	< 1
DICHLORODIFLUOROMETHANE	< 1	< 1	< 1
ETHYLBENZENE	< 1	< 1	< 1
ISOPROPYLBENZENE	< 1	< 1	< 1
METHYLENE CHLORIDE	< 2	< 2	< 19
STYRENE	< 1	< 1	< 1
TERT-BUTYL METHYL ETHER	< 1	< 1	< 1
TETRACHLOROETHENE	< 1	< 1	* 3 *
TOLUENE	< 1	< 1	< 1
TRANS-1,2-DICHLOROETHENE	< 1	* 0.3 J *	< 1
TRANS-1,3-DICHLOROPROPENE	< 1	< 1	< 1
TRICHLOROETHENE	* 25 *	* 480 *	* 820 *
TRICHLOROFLUOROMETHANE	< 1	< 1	< 1
VINYL CHLORIDE	< 1	< 1	* 2 *
XYLENE (TOTAL)	< 1	< 1	< 1
TOTAL METALS (µg/L)			
IRON	* 1,000 *	* 240 *	* 400 *
DISSOLVED METALS (µg/L)			
ARSENIC	NA	NA	< 1
IRON	* 75 J *	< 6	* 98 J *
MANGANESE	NA	NA	* 980 *
DISSOLVED GASES (µg/L)			
ETHANE	* 6 *	< 0.3	* 74 *
ETHENE	< 0.4	< 0.4	* 44 *
HYDROGEN IN WATER	< 5	< 5	< 5

Notes to table on page 13

TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support

Hunters Point Shipyard, San Francisco, California

Sample Location ID	IR28MW933F5	IR28MW934F5	IR28MW939F
Sample Date	03/19/2003	03/21/2003	03/21/2003
Matrix	WATER	WATER	WATER
Sample ID	0312H010Z	0312H023	0312H022
ANIONS (µg/L)			
CHLORIDE	* 130,000 *	* 240,000 *	* 150,000 *
NITRATE AS NITROGEN	* 530 *	NA	NA
ALKALINITY (µg/L)			
TOTAL ALKALINITY	* 54,000 *	* 100,000 *	* 70,000 *

Notes to table on page 13

TABLE 2: ANALYTICAL RESULTS FOR POST-INJECTION ROUND 3 GROUNDWATER SAMPLES (Continued)

User Data Package 5, Parcel C Treatability Study Support
Hunters Point Shipyard, San Francisco, California

Notes: < = Chemical was analyzed for and was not detected at the associated reporting limit
J = Estimated value
NA = Not analyzed

All detected concentrations are flanked by asterisks (*).

ENCLOSURE 1
GROUNDWATER SAMPLING FORMS

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW211F

Sheet 1 of 1

Personnel: H. CHENG

Day: FRIDAY

Date: 3/21/03

Casing Volume = NA Gallons

Initial depth to water: 6.84 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 312 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1134	0	150	7.08	16.51	0.707	5.77	8.31	-372.1	4.54	0
1140	1	150	7.09	16.48	0.711	1.88	8.21	-350.2	4.69	0
1144	2	150	7.10	16.48	0.712	0.92	8.17	-345.8	4.71	0
1148	3	240	7.10	16.48	0.711	0.48	8.14	-379.0	4.36	0
1152	4	240	7.11	16.47	0.711	0.36	8.12	-393.9	4.61	0
1156	5	240	7.11	16.48	0.711	0.28	8.11	-392.8	4.87	0
1201	6	240	7.11	16.51	0.710	0.21	8.10	-410.7	5.08	0
1206	7	240	7.11	16.52	0.710	0.21	8.11	-510.8	4.36	0
1210	8	240	7.11	16.53	0.709	0.21	8.10	-511.1	4.27	0
1214	9	240	7.11	16.53	0.708	0.18	8.11	-509.1	4.29	0

After sampling and, if accessible, depth to bottom: 15.68 ft. below TOC Purged Dry? N

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02J0179 A1	Filter Apparatus	0.45 μm	NA
Water Level Meter	SOLINST 122	1220044624-1	Other TURBIDIMETER	DRT-15LE	319
Pump	GEOPUMP2	008	Other		
PID	OVM 580B	68189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern — Off-Site Lab		Fate and Transport Data — Off-Site Lab	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)		Ethane	X
Mn (Dis.)		Ethene	X
VOCs	X	Hydrogen	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	NA
Middle (mg/L)	
Bottom (mg/L)	

Sample Number: 0312H024

Sample Date/Time: 3/21/03 1215

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: PUMP INTAKE AT 10' BGS

Method of Extraction:
- [ ] Submersible Pump
- [X] Peristaltic Pump
- [ ] Disposable Bailer

Method of Sampling:
- [ ] Submersible Pump
- [X] Peristaltic Pump
- [ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R-28MW311A

Sheet 1 of 1

Personnel: D. CHUNG

Day: TUESDAY

Date: 3/18/03

Casing Volume - NA Gallons

Initial depth to water: 7.31 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 0.7 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1109	0	—	5.33	18.34	33.67	1.43	6.92	190.7	2.11	0
1113	1	240	5.33	18.03	33.74	0.30	6.85	181.7	0.74	0
1116	2	300	5.34	17.85	33.84	0.28	6.83	175.4	0.65	0
1119	3	300	5.34	17.95	33.74	0.21	6.79	167.4	0.82	0
1122	4	300	5.34	17.74	33.81	0.17	6.85	157.9	0.83	0
1125	5	300	5.34	17.64	33.88	0.22	6.82	154.3	1.05	0
1128	6	300	5.34	17.64	33.83	0.27	6.80	152.9	0.56	0
1130	7	300	5.34	17.60	33.88	0.24	6.89	148.2	1.05	0
1133	8	300	5.34	17.70	33.93	0.20	6.81	149.6	0.80	0

After sampling and, if accessible, depth to bottom: 19.58 ft. below TOC Purged Dry? No

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02H0605 AB	Filter Apparatus	0.45 μm	NA
Water Level Meter	SOLINST 122	429	Other TURBIDIMETER	DRT-15LE	319
Pump	GEOPUMP2	008	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern	Off-Site Lab	Fate and Transport Data	Off-Site Lab	Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)		Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)		Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)		
				Middle (mg/L)	NA	
				Bottom (mg/L)		

Sample Number: 0312H002

Sample Date/Time: 3/18/03 1140

QA/QC Sample(s)? [ ] None [X] Field Dup [ ] MS/MSD

Dup. Sample Time 1155 Dup. Sample Number 0312H003

Comments: Pump intake at 19' bgs

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW341F

Sheet 1 of 1

Personnel: D. CHENG

Day: WEDNESDAY

Date: 3/19/03

Casing Volume – NA Gallons

Initial depth to water: 7.14 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 42.2 ppm Background: Φ ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1055	Φ	-	7.21	16.61	Φ.350	1.54	8.36	-512.1	30.4	Φ
1059	1	200	7.57	16.69	Φ.343	Φ.50	8.52	-523.9	21.6	Φ
1104	4	500	8.59	16.89	Φ.345	Φ.13	8.60	-552.6	24.0	Φ
1107	6	200	7.97	16.96	Φ.365	Φ.15	8.49	-560.8	17.5	Φ
1111	7	240	7.73	16.94	Φ.371	Φ.17	8.41	-461.8	11.6	Φ
1114	8	240	7.76	16.94	Φ.397	Φ.17	8.36	-474.0	9.28	Φ
1117	9	240	7.78	16.95	Φ.404	Φ.14	8.36	-558.3 ~~-480~~	6.52	Φ
1121	10	240	7.78	16.94	Φ.407	Φ.21	8.38	-568.2	6.72	Φ
1123	11	300	7.80	16.95	Φ.407	Φ.13	8.38	-565.9	6.14	Φ

modified purge → 50 ml/min

After sampling and, if accessible, depth to bottom: 16.61 ft. below TOC Purged Dry? NO

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	Φ2HΦ6Φ5 AB	Filter Apparatus	Φ.45 μm	NA
Water Level Meter	SOLINST 122	425	Other TURBIDIMETER	DRT-15CE	319
Pump	GEOPUMP2	ΦΦ8	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data: Off-Site Lab		Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)		Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)		Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)	NA	
		Nitrate	X	Middle (mg/L)		
				Bottom (mg/L)		

Sample Number: Φ312HΦ12

Sample Date/Time: 3/19/03 1130

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: Pump intake at 15' bgs

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW342F

Sheet 1 of 2

Personnel: D. CHENG

Day: TUESDAY

Date: 3/18/03

Casing Volume = NA Gallons

Initial depth to water: 6.81 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 13.7 ppm Background: Φ ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/l)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1602	Φ	–	6.78	16.33	Φ.465	Φ.92	8.21	259.Φ	37.7	Φ
1606	1	2ΦΦ	6.79	16.27	Φ.456	Φ.6Φ	8.25	219.Φ	32.5	Φ
1609	2	24Φ	6.8Φ	16.2Φ	Φ.456	Φ.37	8.32	182.Φ	23.7	Φ
1612	3	24Φ	6.81	16.18	Φ.456	Φ.24	8.36	-7.4	16.5	Φ
1616	4	24Φ	6.81	16.16	Φ.456	Φ.18	8.39	-46.6	15.4	Φ
1619	5	24Φ	6.81	16.16	Φ.457	Φ.17	8.41	-141.Φ	14.Φ	Φ
1623	6	24Φ	6.82	16.14	Φ.458	Φ.15	8.42	-215.Φ	11.8	Φ
1626	7	24Φ	6.82	16.14	Φ.461	Φ.14	8.44	-274.5	11.1	Φ
1630	8	24Φ	6.83	16.14	Φ.46Φ	Φ.15	8.46	-314.1	8.97	Φ
1632	9	24Φ	6.83	16.13	Φ.459	Φ.14	8.47	-355.Φ	7.55	Φ
1635	1Φ	24Φ	6.83	16.14	Φ.46Φ	Φ.13	8.48	~~-352.1~~ -405.1	5.97	Φ

After sampling and, if accessible, depth to bottom: 14.63 ft. below TOC Purged Dry? NO

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	Φ2HΦ6Φ5 AB	Filter Apparatus	Φ.45 μm	NA
Water Level Meter	SOLINST 122	429	Other TURBIDIMETER	DRT-15LE	319
Pump	GEOPUMP2	ΦΦ8	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data (Off-Site Lab)		Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)		Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)		Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)		
				Middle (mg/L)	NA	
				Bottom (mg/L)		

Sample Number: Φ312HΦΦ8

Sample Date/Time: 3/18/Φ3 ~~1455~~ 1655

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: Pump intake at 1Φ' bgs.

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: IR28MW342F

Sheet 2 of 2

Personnel: D. CHENG

Day: TUESDAY

Date: 3/18/03

Casing Volume = NA Gallons

Initial depth to water: 6.81 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 13.7 ppm Background: Φ ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1638	11	240	6.83	16.15	0.460	0.11	8.49	-425.8	4.76	0
1642	12	240	6.83	16.14	0.460	0.11	8.50	-427.7	4.32	0
1645	13	240	6.83	16.15	0.462	0.11	8.49	-426.5	4.38	0

After sampling and, if accessible, depth to bottom: 14.63 ft. below TOC Purged Dry? NO

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556		Filter Apparatus	0.45 μm	NA
Water Level Meter	SOLINST 122		Other TURBIDIMETER	DRT-15CE	
Pump	GEOPUMP2		Other		
PID	OVM 580B		Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern	Off-Site Lab	Fate and Transport Data	Off-Site Lab	Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)		Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)		Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)	NA	
				Middle (mg/L)		
				Bottom (mg/L)		

Sample Number: _____ Sample Date/Time: _____

QA/QC Sample(s)? ☐ None ☐ Field Dup ☐ MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: _____

Method of Extraction:
☐ Submersible Pump
☐ Peristaltic Pump
☐ Disposable Bailer

Method of Sampling:
☐ Submersible Pump
☐ Peristaltic Pump
☐ Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW351F

Sheet 1 of 1

Personnel: H. CHENG

Day: TUESDAY

Date: 3/18/03

Casing Volume = NA Gallons

Initial depth to water: 7.09 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75 inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 5.0 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1344	0	171	6.98	16.52	3.149	4.52	7.58	211.6	6.44	0
1350	1	171	7.03	16.98	6.064	2.62	7.11	39.6	47.4	0
1355	2	171	7.00	17.08	6.360	1.69	7.05	32.3	33.3	0
1400	3	171	7.01	17.06	6.455	1.28	7.03	35.8	19.3	0
1405	4	185	7.03	17.06	6.475	1.11	7.02	40.6	13.3	0
1410	5	185	7.03	17.12	6.397	0.91	7.02	45.0	8.91	0
1415	6	200	7.04	17.19	6.241	0.79	7.02	41.8	6.26	0
1420 ~~1440~~	7	218	7.05	17.24	5.998	0.69	7.03	45.1	4.21	0
1424 ~~1444~~	8	240	7.07	17.27	5.902	0.66	7.03	46.4	2.93	0
1427 ~~1447~~	9	240	7.07	17.31	5.854	0.61	7.03	48.6	2.37	0
1430	10	240	7.08	17.35	5.841	0.59	7.02	50.1	2.07	0

After sampling and, if accessible, depth to bottom: 60.98 ft. below TOC Purged Dry? N

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02J0179-A1	Filter Apparatus	0.45 μm	NA
Water Level Meter	SOLINST 122	122 004623-1	Other TURBIDIMETER	DRT-15CE	311
Pump	~~GEOPUMPS~~ BULTA	152	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern — Off-Site Lab		Fate and Transport Data — Off-Site Lab		Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)	X	Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)	X	Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)		
				Middle (mg/L)	NA	
				Bottom (mg/L)		

Sample Number: ~~0312H003~~ 0312H004 Sample Date/Time: 3/18/03 1440

QA/QC Sample(s)? ☐ None ☐ Field Dup ☒ MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments:

PUMP INTAKE AT 55' BGS

Method of Extraction:
- ☒ Submersible Pump
- ☐ Peristaltic Pump
- ☐ Disposable Bailer

Method of Sampling:
- ☒ Submersible Pump
- ☐ Peristaltic Pump
- ☐ Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R22ØMW355F

Sheet 1 of 1

Personnel: D. CHENG

Day: TUESDAY

Date: 3/18/Ø3

Casing Volume = NA Gallons

Initial depth to water: 7.04 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 1.8 ppm Background: Ø ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1350	Ø	–	7.Ø6	17.93	Ø.927	7.Ø9	8.23	187.1	1.4Ø	Ø
1354	1	16Ø	7.5Ø	16.77	Ø.796	6.73	8.Ø7	189.9	1.39	Ø
14Ø2	6	2ØØ	9.Ø5	16.46	Ø.629	6.92	7.98	2Ø8.2	1.58	Ø
14Ø5	7	2ØØ	9.19	16.51	Ø.628	6.46	7.95	216.2	1.31	Ø
14Ø9	8	2ØØ	9.3Ø	16.52	Ø.628	6.23	7.93	225.5	1.Ø6	Ø
1419	9	2ØØ	9.31	16.53	Ø.627	6.13	7.96	241.1	1.12	Ø
1427	1Ø	2ØØ	9.32	16.51	Ø.626	6.17	7.87	244.8	1.Ø9	Ø
1432	11	2ØØ	9.34	16.51	Ø.626	6.11	7.86	249.3	1.Ø3	Ø

After sampling and, if accessible, depth to bottom: 2Ø.34 ft. below TOC Purged Dry? NO

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	Ø24ØØØ5 AB	Filter Apparatus	Ø.45 μm	NA
Water Level Meter	SOLINST 122	429	Other TURBIDIMETER	DRT-15CE	319
Pump	GEOPUMP2	ØØ8	Other		
PID	OVM580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data: Off-Site Lab		Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)	X	Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)	X	Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)		
				Middle (mg/L)	NA	
				Bottom (mg/L)		

Sample Number: Ø312HØØØ5 Sample Date/Time: 3/18/Ø3 1445

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: Pump intake at 15' bgs

Method of Extraction: [ ] Submersible Pump [X] Peristaltic Pump [ ] Disposable Bailer

Method of Sampling: [ ] Submersible Pump [X] Peristaltic Pump [ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW356F

Sheet 1 of 1

Personnel: D. CHENG

Day: TUESDAY

Date: 3/18/03

Casing Volume – NA Gallons

Initial depth to water: 6.99 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 2.2 ppm Background: Ø ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1508	Ø	–	7.02	16.83	Ø.889	7.19	7.59	274.6	Ø.95	Ø
1512	1	200	7.42	16.70	Ø.893	6.01	7.54	275.Ø	Ø.89	Ø
1515	4	500	8.14	16.64	Ø.898	6.82	7.54	275.6	3.01	Ø
1519	7	200	8.75	16.63	Ø.897	6.64	7.53	277.2	3.06	Ø
1523	8	200	8.85	16.68	Ø.897	6.31	7.52	278.8	Ø.61	Ø
1526	9	200	8.93	16.69	Ø.897	6.13	7.52	280.5	Ø.44	Ø
1531	10	200	8.99	16.67	Ø.896	6.11	7.52	282.1	Ø.58	Ø

difficed purging → 500 mL/min

After sampling and, if accessible, depth to bottom: 20.34 ft. below TOC Purged Dry? No

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	Ø2H86Ø5 AB	Filter Apparatus	Ø.45 μm	NA
Water Level Meter	SOLINST 122	429	Other TURBIDIMETER	DRT-15LE	319
Pump	GEOPUMP2	ØØ8	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data (Off-Site Lab)	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)	X	Ethane	X
Mn (Dis.)	X	Ethene	X
VOCs	X	Hydrogen	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	NA
Middle (mg/L)	
Bottom (mg/L)	

Sample Number: Ø312HØØØ6 Sample Date/Time: 3/18/03 1540

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: Pump intake at 15' bgs

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW357F

Sheet 1 of 1

Personnel: H. CHENG

Day: TUESDAY

Date: 3-18-03

Casing Volume = NA Gallons

Initial depth to water: 6.58 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 4.1 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
~~1534~~ 1531	0	100	6.54	16.38	0.538	4.92	7.53	175.1	0.65	0
1540	0.75	100	6.86	16.40	0.511	3.71	7.37	186.7	0.72	0
1543	2	700	7.18	16.49	0.467	3.81	7.34	220.6	1.12	0
1545	4	700	7.57	16.50	0.457	3.83	7.31	258.6	0.73	0
1549	6	700	8.00	16.50	0.457	3.79	7.30	297.3	0.32	0
1551	8	300	8.24	16.47	0.457	3.69	7.26	318.0	0.62	0
1554	9	300	8.20	16.48	0.457	3.56	7.30	299.4	4.60	0
1558	10	300	8.20	16.47	0.457	3.47	7.26	294.1	4.66	0
1602	11	300	8.20	16.47	0.457	3.37	7.27	290.4	4.35	0
1606	12	300	8.20	16.48	0.457	3.33	7.26	288.3	4.86	0

→ 3 PURGE INTERVALS

After sampling and, if accessible, depth to bottom: 20.18 ft. below TOC Purged Dry? N

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02J0179-A1	Filter Apparatus	0.45 μm	NA
Water Level Meter	SOLINST 122	122 004623-1	Other TURBIDIMETER	DRT-15CE	311
Pump	GEOPUMP2	~~0452~~ 948	Other		
PID	OVM580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data: Off-Site Lab	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)	X	Ethane	X
Mn (Dis.)	X	Ethene	X
VOCs	X	Hydrogen	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	
Middle (mg/L)	NA
Bottom (mg/L)	

Sample Number: 0312H007

Sample Date/Time: 3/18/03 1610

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: PUMP INTAKE AT 15' BGS

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW358F

Sheet 1 of 1

Personnel: H. CHENG

Day: TUESDAY

Date: 3/18/03

Casing Volume = NA Gallons

Initial depth to water: 6.78 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 0.5 ppm Background: 0 ppm

Groundwater Parameters

	Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
	1114	0	250	6.78	16.22	0.558	7.97	7.26	229.9	1.55	0
MODIFIED MICROPURGE →	1117	0.5	200	7.33	16.23	0.546	7.83	7.31	226.7	1.44	0
	1119	3	700	8.40	16.42	0.534	8.02	7.32	230.6	1.97	0
	1122	9	200	9.60	16.38	0.534	7.45	7.34	233.1	1.45	0
MODIFIED FAILED →	1127	10	200	10.23	16.31	0.534	7.22	7.34	237.4	1.30	0
	1140	51	PURGED DRY								
	3/19/03 1130	52	100	12.75	16.47	0.579	6.60	7.33	86.1	5.65	0

After sampling and, if accessible, depth to bottom: 20.19 ft. below TOC Purged Dry? Y

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02J0179 A1	Filter Apparatus	0.45 μm	NA
Water Level Meter	SOLINST 122	122 004633-1	Other TURBIDIMETER	DRT-15CE	311
Pump (SAMPLE)	GEOPUMP2	948	Other Pump (PURGE)	FULTZ	152
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data (Off-Site Lab)	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)	X	Ethane	X
Mn (Dis.)	X	Ethene	X
VOCs	X	Hydrogen	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	NA
Middle (mg/L)	
Bottom (mg/L)	

Sample Number: 0312H011

Sample Date/Time: 3/19/01 1130

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: PUMP INTAKE AT 15' BGS

Method of Extraction:
[X] Submersible Pump
[ ] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW359F

Sheet 1 of 1

Personnel: D. CHENG

Day: WEDNESDAY

Date: 3/19/03

Casing Volume = NA Gallons

Initial depth to water: 6.64 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 3.0 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (ml /min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
0957	0	–	6.80	15.99	0.611	4.46	7.19	261.5	2.35	0
1002	1	160	7.17	16.15	0.587	3.70	7.29	234.5	2.42	0
1007	4	500	8.06	16.45	0.577	3.85	7.32	236.9	4.40	0
1010	6	160	8.40	16.42	0.576	3.79	7.31	239.5	4.16	0
1014	7	160	8.46	16.35	0.577	3.62	7.31	241.9	2.52	0
1018	8	160	8.55	16.30	0.576	3.60	7.31	249.4	2.43	0

fixed purge rate 160 ml/min

After sampling and, if accessible, depth to bottom: 20.35 ft. below TOC Purged Dry? NO

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02M0605 AB	Filter Apparatus	0.45 µm	NA
Water Level Meter	SOLINST 122	425	Other TURBIDIMETER	DRT-15LE	319
Pump	GEOPUMP2	008	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern — Off Site Lab		Fate and Transport Data — Off-Site Lab		Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)		Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)		Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)		
		Nitrate	X	Middle (mg/L)	NA	
				Bottom (mg/L)		

Sample Number: 0312H010

Sample Date/Time: ~~3/18/03~~ 3/19/03 1025

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: Pump intake at 15' bgs

Method of Extraction:
- [ ] Submersible Pump
- [X] Peristaltic Pump
- [ ] Disposable Bailer

Method of Sampling:
- [ ] Submersible Pump
- [X] Peristaltic Pump
- [ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28 MW36DF

Sheet 1 of 1

Personnel: D. CHENG

Day: FRIDAY

Date: 3/21/03

Casing Volume = NA Gallons

Initial depth to water: 6.53 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 27.1 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
0931	0	–	6.65	15.52	0.494	2.80	7.14	234.6	9.25	0
0939	1	120	6.72	15.66	0.483	1.59	7.23	240.2	8.08	0
0945	2	120	6.73	15.79	0.482	1.41	7.22	238.3	7.74	0
0952	3	120	6.73	15.82	0.481	1.42	7.22	236.9	7.97	0
0957	4	120	6.74	15.86	0.481	1.29	7.21	237.1	7.26	0
1003	5	120	6.75	15.89	0.479	1.20	7.21	235.7	7.35	0
1008	6	120	6.76	15.91	0.478	1.25	7.20	233.3	6.63	0
1013	7	120	6.77	15.93	0.477	1.15	7.20	232.7	6.86	0
1018	8	120	6.78	15.93	0.476	1.15	7.20	235.2	6.33	0

After sampling and, if accessible, depth to bottom: 20.18 ft. below TOC Purged Dry? NO

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02H0605 AB	Filter Apparatus	0.45 µm	NA
Water Level Meter	SOLINST 122	425	Other TURBIDIMETER	DRT-15LE	310
Pump	GEOPUMPZ	948	Other		
PID	OVM 580B	OVM.53	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data (Off-Site Lab)	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)	X	Ethane	X
Mn (Dis.)	X	Ethene	X
VOCs	X	Hydrogen	X
		Nitrate	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	
Middle (mg/L)	NA
Bottom (mg/L)	

Sample Number: 0312102 0

Sample Date/Time: 3/21/03 1025

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: Pump intake at 15' bgs

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW361F

Sheet 1 of 1

Personnel: H. CHENG

Day: WEDNESDAY

Date: 3/19/03

Casing Volume = NA Gallons

Initial depth to water: 6.78 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 4.2 ppm Background: Φ ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1455	Φ	16Φ	6.99	16.56	Φ.564	3.13	8.Φ2	-146.5	2Φ.5	Φ
1Φ01	1	16Φ	7.33	16.56	Φ.565	Φ.85	8.Φ2	-198.2	16.84	Φ
1Φ04	3	7ΦΦ	7.93	16.55	Φ.566	Φ.33	8.ΦΦ	-219.6	14.25	Φ
1Φ07	5	7ΦΦ	8.29	16.55	Φ.566	Φ.23	8.ΦΦ	-223.8	13.27	Φ
1Φ1Φ	7	7ΦΦ	8.72	16.54	Φ.566	Φ.17	7.99	-227.8	15.25	Φ
1513	9	3ΦΦ	8.91	16.54	Φ.569	Φ.14	7.98	-23Φ.5	17.Φ9	Φ
1516	1Φ	3ΦΦ	8.91	16.54	Φ.571	Φ.12	7.98	-234.4	18.51	Φ
152Φ	11	3ΦΦ	8.97	16.54	Φ.574	Φ.12	7.97	-23Φ.9	18.14	Φ

MODIFIED WELL PURGE →

After sampling and, if accessible, depth to bottom: 24.32 ft. below TOC Purged Dry? N

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	Φ2JΦ179 A1	Filter Apparatus	Φ.45 μm	NA
Water Level Meter	SOLINST 122	122 ΦΦ4623-1	Other TURBIDIMETER	DRT-15LE	319
Pump	GEOPUMP2	948	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data: Off-Site Lab		Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)		Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)		Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)	NA	
		Nitrate	X	Middle (mg/L)		
				Bottom (mg/L)		

Sample Number: Φ312MΦ16

Sample Date/Time: 3/19/03 153Φ

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: PUMP INTAKE AT 15' BGS

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW362F

Sheet 1 of 1

Personnel: D. CHENG

Day: WEDNESDAY

Date: 3/19/03

Casing Volume = NA Gallons

Initial depth to water: 7.02 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 4.2 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (ml /min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1333	0	–	7.10	16.79	0.463	1.30	8.20	-512.6	6.12	0
1336	1	240	7.11	16.49	0.462	0.40	8.21	-517.0	3.83	0
1340	2	240	7.11	16.51	0.459	0.24	8.24	-561.3 ~~-556.1~~	3.33	0
1345	3	240	7.12	16.44	0.456	0.24	8.28	-566.5	2.96	0
1348	4	240	7.12	16.44	0.454	0.31	8.30	-535.6	2.51	0
1352	5	240	7.12	16.45	0.443	0.15	8.32	-499.4	2.26	0
1356	6	240	7.14	16.46	0.438	0.16	8.33	-537.5	1.97	0
1400	7	240	7.16	16.47	0.435	0.15	8.36	-533.9 ~~-528.1~~	1.69	0
1403	8	240	7.16	16.46	0.433	0.11	8.39	-529.6	1.36	0

After sampling and, if accessible, depth to bottom: 16.86 ft. below TOC Purged Dry? NO

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02M0605 AB	Filter Apparatus	0.45 µm	NA
Water Level Meter	SOLINST 122	425	Other TURBIDIMETER	DRT-15CE	319
Pump	GEOPUMP2	008	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data (Off-Site Lab)	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)		Ethane	X
Mn (Dis.)		Ethene	X
VOCs	X	Hydrogen	X
		Nitrate	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	NA
Middle (mg/L)	
Bottom (mg/L)	

Sample Number: ~~0300~~ 0312H013 Sample Date/Time: 3/19/03 1410

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: Pump intake at 14' bgs.

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW932F

Sheet 1 of 1

Personnel: H. CHENG

Day: FRIDAY

Date: 3/21/03

Casing Volume = NA Gallons

Initial depth to water: 6.84 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 13.6 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
0935	0	150	7.09	16.07	0.510	4.67	7.81	-125.1	11.64	0
0942	1	150	7.12	16.37	0.500	2.11	8.03	-171.3	9.61	0
0947	2	150	7.15	16.48	0.504	1.07	8.07	-176.7	7.65	0
0952	3	150	7.17	16.53	0.506	0.63	8.09	-178.5	7.60	0
0957	4	150	7.17	16.58	0.509	0.40	8.08	-179.9	6.61	0
1003	5	150	7.19	16.60	0.514	0.39	8.10	-179.3	5.03	0
1008	6	150	7.19	16.61	0.515	0.23	8.09	-171.7	4.82	0
1013	7	150	7.20	16.63	0.516	0.21	8.08	-178.1	4.31	0
1018	8	150	7.21	16.65	0.516	0.19	8.10	-179.3	4.26	0

After sampling and, if accessible, depth to bottom: 30.52 ft. below TOC Purged Dry? N

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02J0179 A1	Filter Apparatus	0.45 μm	NA
Water Level Meter	SOLINST 122	122 004624-1	Other TURBIDIMETER	DRT-15CE	319
Pump	GEOPUMP2	008	Other		
PID	OVM 580B	68189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data (Off-Site Lab)	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)	X	Ethane	X
Mn (Dis.)	X	Ethene	X
VOCs	X	Hydrogen	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	NA
Middle (mg/L)	
Bottom (mg/L)	

Sample Number: 0312H021

Sample Date/Time: 3/21/03 1030

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: PUMP INTAKE AT 28.5' BGS

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW933FS

Sheet 1 of 1

Personnel: H. CHEUG

Day: WEDNESDAY

Date: 3/19/03

Casing Volume = NA Gallons

Initial depth to water: NA ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 4.4 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
0955	0	150	NA	16.61	0.621	3.06	7.31	-248.3	135.6	0
1001	1	150	NA	16.98	0.592	0.83	7.24	-212.2	41.9	0
1006	2	160	NA	17.04	0.576	0.47	7.19	-215.9	20.1	0
~~1009~~ 1011	3	160	NA	17.10	0.569	0.29	7.17	-217.4	14.3	0
1016	4	160	NA	17.13	0.563	0.21	7.16	-210.1	10.47	0
1021	5	160	NA	17.15	0.558	0.16	7.14	-211.2	19.35	0
1027	6	160	NA	17.17	0.551	0.13	7.13	-233.6	14.68	0
1032	7	160	NA	17.20	0.546	0.13	7.12	-233.1	13.51	0
1037	8	160	NA	17.21	0.544	0.12	7.11	-231.4	13.37	0

After sampling and, if accessible, depth to bottom: NA ft. below TOC Purged Dry? N

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02J0179 A1	Filter Apparatus	0.45 μm	NA
Water Level Meter	NA ~~GALINST 112~~	NA	Other TURBIDIMETER	DRT-15CE	319
Pump	GEOPUMP2	948	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern	Off-Site Lab	Fate and Transport Data	Off-Site Lab
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)		Ethane	X
Mn (Dis.)		Ethene	X
VOCs	X	Hydrogen	X
		Nitrates	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	NA
Middle (mg/L)	
Bottom (mg/L)	

Sample Number: 0312H01D2

Sample Date/Time: 3/19/03 1040

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: PUMP INTAKE AT ~30' BGS

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW934FS

Sheet 1 of 2

Personnel: D. CHENG

Day: FRIDAY

Date: 3/21/03

Casing Volume = NA Gallons

Initial depth to water: ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: Φ ppm Background: Φ ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1048	Φ	–	NA	16.47	Φ.837	2.60	7.38	-77.8	167	Φ
1054	1	133	"	16.73	Φ.875	Φ.45	7.02	-39.4	70.7	Φ
1100	2	133	"	16.84	Φ.896	Φ.28	6.97	-25.0	21.4	Φ
1105	3	133	"	16.88	Φ.901	Φ.32	6.96	-7.2	9.69	Φ
1110	4	133	"	16.91	Φ.903	Φ.33	6.93	30.5	7.49	Φ
1115	5	133	"	16.94	Φ.901	Φ.35	6.95	58.0	4.94	Φ
1121	6	133	"	16.95	Φ.899	Φ.35	6.89	78.8	3.97	Φ
1126	7	133	"	16.96	Φ.898	Φ.36	6.87	89.5	4.81	Φ
1131	8	~~133~~ 200	"	17.01	Φ.896	Φ.37	6.87	103.2	5.80	Φ
1135	9	200	"	17.03	Φ.897	Φ.38	6.86	112.5	7.89	Φ
1140	10	200	"	17.05	Φ.896	Φ.39	6.85	120.5	9.90	Φ

After sampling and, if accessible, depth to bottom: NA ft. below TOC Purged Dry? NO

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	Φ2MΦ605 AB	Filter Apparatus	Φ.45 μm	NA
Water Level Meter	NA ~~SOLINST 122~~	NA	Other TURBIDIMETER	DRT-15CE	31Φ
Pump	GEOPUMP2	948	Other		
PID	OVM 580B	OVM.53	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data (Off-Site Lab)	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)		Ethane	X
Mn (Dis.)		Ethene	X
VOCs	X	Hydrogen	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	
Middle (mg/L)	NA
Bottom (mg/L)	

Sample Number: Φ312HΦ23

Sample Date/Time: 3/21/03 1200

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time ___ Dup. Sample Number ___

Comments: Pump intake at 28' bgs.

Method of Extraction:
- [ ] Submersible Pump
- [X] Peristaltic Pump
- [ ] Disposable Bailer

Method of Sampling:
- [ ] Submersible Pump
- [X] Peristaltic Pump
- [ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R28MW934F5

Sheet 2 of 2

Personnel: D. CHENG

Day: FRIDAY

Date: 3/~~19~~21/03

Casing Volume = NA Gallons

Initial depth to water: ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 0 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1144	11	200	NA	17.07	0.897	0.40	6.84	128.9	8.04	0
1148	12	200	"	17.09	0.897	0.43	6.83	134.0	5.37	0
1152	13	200	"	17.10	0.898	0.43	6.83	138.7	4.89	0

After sampling and, if accessible, depth to bottom: ft. below TOC Purged Dry?

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556		Filter Apparatus	0.45 μm	NA
Water Level Meter	SOLINST 122		Other TURBIDIMETER	DRT-15LE	
Pump	GEOPUMP2		Other		
PID	OVM 580B		Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern — Off-Site Lab		Fate and Transport Data — Off-Site Lab		Field Test Kit Analyses	Unfiltered	Filtered
Fe (Total)	X	Chloride	X	Fe^{2+} (mg/L)	NA	NA
Fe (Dis.)	X	Alkalinity	X	Mn^{2+} (mg/L)		
As (Dis.)		Ethane	X	Filter where turbidity > 50 NTU.		
Mn (Dis.)		Ethene	X	Downhole Dissolved Oxygen		
VOCs	X	Hydrogen	X	Top (mg/L)		
				Middle (mg/L)	NA	
				Bottom (mg/L)		

Sample Number: Sample Date/Time:

QA/QC Sample(s)? ☐ None ☐ Field Dup ☐ MS/MSD

Dup. Sample Time Dup. Sample Number

Comments:

Method of Extraction:
☐ Submersible Pump
☐ Peristaltic Pump
☐ Disposable Bailer

Method of Sampling:
☐ Submersible Pump
☐ Peristaltic Pump
☐ Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R281W938F

Sheet 1 of 1

Personnel: H. CHENG

Day: WEDNESDAY

Date: 3/19/03

Casing Volume = NA Gallons

Initial depth to water: 7.14 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 12.3 ppm Background: Φ ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (mL/min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1330	Φ	150	7.21	16.47	Φ.414	1.23	8.82	-443.7	467	Φ
1335	1	150	7.33	16.50	Φ.405	Φ.55	8.93	-569.2	475	Φ
1340	2	150	7.37	16.51	Φ.403	Φ.21	8.97	-599.2	593	Φ
1346	3	160	7.41	16.52	Φ.403	Φ.15	8.97	-629.6	606	Φ
1351	4	160	7.43	16.53	Φ.403	Φ.13	8.97	-646.3	591	Φ
1356	5	160	7.44	16.54	Φ.403	Φ.11	8.97	-635.8	571	Φ
1403	6	160	7.45	16.54	Φ.402	Φ.10	8.97	-622.3	559	Φ
1408	7	160	7.45	16.55	Φ.402	Φ.10	8.97	-625.4	555	Φ
1413	8	160	7.46	16.55	Φ.402	Φ.09	8.97	-621.7	550	Φ

After sampling and, if accessible, depth to bottom: 15.71 ft. below TOC Purged Dry? N

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	Φ2JΦ179 A1	Filter Apparatus	Φ.45 μm	NA
Water Level Meter	SOLINST 122	122 ΦΦ4623-1	Other TURBIDIMETER	DRT-15CE	319
Pump	GEOPUMP2	948	Other		
PID	OVM 580B	69189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern (Off-Site Lab)		Fate and Transport Data (Off-Site Lab)	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)	X	Ethane	X
Mn (Dis.)	X	Ethene	X
VOCs	X	Hydrogen	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	NA
Middle (mg/L)	
Bottom (mg/L)	

Sample Number: Φ312HΦ14

Sample Date/Time: 3/19/03 1415

QA/QC Sample(s)? [ ] None [X] Field Dup [ ] MS/MSD

Dup. Sample Time 1430 Dup. Sample Number 0312HΦ15

Comments: PUMP INTAKE AT 13' BGS

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

TETRA TECH INC.
MONITORING WELL SAMPLING SHEET

Well No.: 1R281W939F

Sheet 1 of 1

Personnel: H. CHENG

Day: FRIDAY

Date: 3-21-03

Casing Volume = NA Gallons

Initial depth to water: 7.03 ft. below top of casing

[casing volume = water column height (ft) x 0.03 gal/ft (0.75-inch well) or 0.163 gal/ft (2-inch well) or 0.652 gal/ft (4-inch well)]

Organic Vapor Concentrations
Top of Casing: 74.1 ppm Background: 0 ppm

Groundwater Parameters

Time	Cumulative Volume Purged (L)	Discharge Rate (ml./min)	Depth to water (ft. below TOC)	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	PID/OVM (ppm)
1040	0	200	7.20	16.40	0.589	2.65	8.46	-175.1	5.59	0
1045	1	240	7.22	16.38	0.590	1.31	8.50	-217.4	4.43	0
1049	2	240	7.23	16.39	0.591	0.60	8.54	-216.9	3.68	0
1053	3	240	7.24	16.38	0.592	0.40	8.54	-208.8	3.85	0
1056	4	240	7.25	16.38	0.592	0.32	8.55	-215.4	3.72	0
1059	5	240	7.25	16.39	0.592	0.23	8.54	-192.3	3.59	0
1104	6	240	7.25	16.41	0.592	0.19	8.55	-197.9	3.22	0
1108	7	240	7.25	16.41	0.592	0.19	8.55	-194.7	3.34	0
1111	8	240	7.25	16.40	0.593	0.18	8.55	-196.1	3.19	0

After sampling and, if accessible, depth to bottom: 20.46 ft. below TOC Purged Dry? N

Field Measurement Equipment Used

Equipment	Model	Serial Number	Equipment	Model	Serial Number
Water Quality Meter	YSI 556	02J0179 A1	Filter Apparatus	0.45 µm	NA
Water Level Meter	SOLINST 122	122 004624-1	Other TURBIDIMETER	DRT-15CE	319
Pump	GEOPUMP2	008	Other		
PID	OVM 580B	68189-362	Other		

Groundwater Samples Collected (check all that apply)

Analytes of Concern — Off-Site Lab		Fate and Transport Data — Off-Site Lab	
Fe (Total)	X	Chloride	X
Fe (Dis.)	X	Alkalinity	X
As (Dis.)	X	Ethane	X
Mn (Dis.)	X	Ethene	X
VOCs	X	Hydrogen	X

Field Test Kit Analyses

	Unfiltered	Filtered
Fe^{2+} (mg/L)	NA	NA
Mn^{2+} (mg/L)		

Filter where turbidity > 50 NTU.

Downhole Dissolved Oxygen

Top (mg/L)	NA
Middle (mg/L)	
Bottom (mg/L)	

Sample Number: 0312H022 Sample Date/Time: 3/21/03 1115

QA/QC Sample(s)? [X] None [ ] Field Dup [ ] MS/MSD

Dup. Sample Time _____ Dup. Sample Number _____

Comments: Pump intake at 15' bgs

Method of Extraction:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Method of Sampling:
[ ] Submersible Pump
[X] Peristaltic Pump
[ ] Disposable Bailer

Revised 10/31/02

ENCLOSURE 2
CHAIN-OF-CUSTODY FORMS

Tetra Tech EM Inc.
San Francisco Office

Chain of Custody Record No. 4388

135 Main St. Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

4388

Lab PO#: 022277	Lab: COLUMBIA	
Project name: FEDEX INJTECH DEMO	TtEMI technical contact: DR. KUTSAL	Field samplers: HWAKONG CHENG
Project (CTO) number: 49016013030502 0709	TtEMI project manager: JOHN MCCALL	Field samplers' signatures: [signature]

Preservative Added: HCA; HNO3; HNO3; HCA; 1 1 1

Sample ID	Sample Location (Pt. ID)	Date	Time	Matrix	MS / MSD	40 ml VOA	1 liter Amber	500 ml Poly	Sleeve	Glass Jar	VOA	SVOA	Pest/PCBs	Metals	TPH Purgeables	TPH Extractables	Total Fe	Diss Fe	Diss As/Mn	Ethane/Ethene	Dissolved H_2	Chloride/Alkalinity	Nitrate
0312H001	TRIP BLANK	3/18/03	1000	WATER	–	2	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–
0312H002	1R28MW311A		1140		–	7	–	3	–	–	X	–	–	–	–	–	X	X	–	X	X	X	–
0312H003	1R28MW311A DUP		1155		–	3	–	2	–	–	X	–	–	–	–	–	X	X	–	–	–	–	–
0312H004	1R28MW351F		1440		X	10	–	6	–	–	X	–	–	–	–	–	X	X	X	X	X	X	–
0312H005	1R28MW355F		1445		–	7	–	3	–	–	X	–	–	–	–	–	X	X	X	X	X	X	–
0312H006	1R28MW356F		1540		–	7	–	3	–	–	X	–	–	–	–	–	X	X	X	X	X	X	–
0312H007	1R28MW357F		1610		–	7	–	3	–	–	X	–	–	–	–	–	X	X	X	X	X	X	–
0312H008	1R28MW342F		1615		–	7	–	3	–	–	X	–	–	–	–	–	X	X	–	X	X	X	–
0312H009	EQUIPMENT RINSATE		1700		–	3	–	2	–	–	X	–	–	–	–	–	X	–	X	–	–	–	–
0312H010	1R28MW359F	3/19/03	1025		–	7	–	3	–	–	X	–	–	–	–	–	X	X	–	X	X	X	X
0312H0107	1R28MW933FS		1040		–	7	–	3	–	–	X	–	–	–	–	–	X	X	–	X	X	X	X
0312H011	1R28MW358F		1130		–	7	–	3	–	–	X	–	–	–	–	–	X	X	X	X	X	X	–

	Name (print)	Company Name	Date	Time
Relinquished by: [signature]	HWAKONG CHENG	TtEMI	3/19/03	1900
Received by: FEDEX				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:
DISSOLVED METALS SAMPLES FIELD FILTERED
MS/MSD FOR 0312H004 IS FOR VOCS, TOTAL FE, DISS FE/AS/MN, AND CHLORIDE

Fed Ex #: 8368 9469 4535 MPS N322 0320 9211 8322 0320 9222

WHITE-Laboratory Copy YELLOW-Sample Tracker PINK-File Copy

Tetra Tech EM Inc.
San Francisco Office
135 Main St. Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

Chain of Custody Record No. 4389

4389

Lab PO#: D22277

Lab: COLUMBIA

Project name: TEXAS INSTRUMENTS DEMO

TtEMI technical contact: DEB KUTSAL

Field samplers: HWAKONG CHENG

Project (CTO) number: 6910601303050200709

TtEMI project manager: JOHN McCALL

Field samplers' signatures: HC

Preservative Added: HCL, HNO3, HNO3, HCL

No./Container Types / Analysis Required

Sample ID	Sample Location (Pt. ID)	Date	Time	Matrix	MS / MSD	40 ml VOA	1 liter Amber	500 ml Poly	Sleeve	Glass Jar	VOA	SVOA	Pest/PCBs	Metals	TPH Purgeables	TPH Extractables	TOTAL FE	DISS FE	DISS AS/MN	Ethane/Ethane	DISS H2	CHL.+ZINC/AIR	NITRATE
0312H012	1R28MW341F	3/19/03	1130	WATER	—	7	—	3	—	—	X	—	—	—	—	—	X	X	-	X	X	X	X
0312H013	1R28MW362F		1410		—	7	—	3	—	—	X	—	—	—	—	—	X	X	-	X	X	X	X
0312H014	1R28IW938F		1415		—	7	—	3	—	—	X	—	—	—	—	—	X	X	X	X	X	X	—
0312H015	1R28IW938F DUP		1430		—	3	—	2	—	—	X	—	—	—	—	—	X	X	X	—	—	—	—
0312H016	1R28MW361F		1530		—	7	—	3	—	—	X	—	—	—	—	—	X	X	X	X	X	X	X
0312H017	1R28MW275F		1535		—	7	—	3	—	—	X	—	—	—	—	—	X	X	-	X	X	X	—
0312H018	EQUIPMENT RINSATE		1600		—	3	—	2	—	—	X	—	—	—	—	—	X	-	X	—	—	—	—

HC

	Name (print)	Company Name	Date	Time
Relinquished by:	HWAKONG CHENG	TEMI	3/19/03	1900
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:

NO DISS AS/MN ANALYSIS FOR 0312H016

DISSOLVED METALS SAMPLES FIELD FILTERED

Fed Ex #: 8368 9469 4535 UPS 8322 0320 9211 8322 0320 9222

WHITE-Laboratory Copy YELLOW-Sample Tracker PINK-Copy

Tetra Tech EM Inc.
San Francisco Office

Chain of Custody Record No. 4390

135 Main St. Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

Lab PO#: 032205

Lab: COLUMBIA

4390

Project name: FEROX INJ TECH DEMO

TtEMI technical contact: DEB KUTSAL

Field samplers: HWAKONG CHENG

Project (CTO) number: 6901601303050207 09

TtEMI project manager: JOHN MCCALL

Field samplers' signatures: H. Cheng

Sample ID	Sample Location (Pt. ID)	Date	Time	Matrix	MS / MSD	40 ml VOA	1 liter Amber	500 ml Poly	Sleeve	Glass Jar	VOA	SVOA	Pest/PCBs	Metals	TPH Purgeables	TPH Extractables	TOTAL IRON	DISS IRON	DISS AS, MN	Ethane/Ethene	DISS H2	Chloride/Alkalinity	Nitrate
0312H019	TRIP BLANK	3/21/03	0900	WATER	–	2					X												
0312H020	1R28MW360F		1025		–	7	–	3			X						X	X	X	X	X	X	X
0312H021	1R28MW932F		1030		–	7	–	3			X						X	X	X	X	X	X	
0312H022	1R28MW939F		1115		–	7	–	3			X						X	X	X	X	X	X	
0312H023	1R28MW934FS		1200		–	7	–	3			X						X	X	–	X	X	X	
0312H024	1R28MW211F		1215		–	7	–	3			X						X	X	–	X	X	X	
0312H025	EQUIPMENT RINSATE		1300		–	3	–	2			X						X	–	X				

Preservative Added: HCl; HNO3; HNO3; HNO3; HCl; 1; 1; 1

	Name (print)	Company Name	Date	Time
Relinquished by: H. Cheng	HWAKONG CHENG	TETRA TECH	3/21/03	1500
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:
DISSOLVED METALS ARE FIELD FILTERED

Fed Ex #: 8368 9469 4524

WHITE-Laboratory Copy YELLOW-Sample Tracker PINK-File Copy

ENCLOSURE 3
GROUNDWATER LEVEL MEASUREMENT FORMS

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): (PID) FID

Well Identification Number	Organic Vapor Information: PID/FID Reading (ppm)	Organic Vapor Information: Date	Water Level Information: Well previously equilibrated? (Yes/No)	Water Level Information: If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Depth to Groundwater Information: Time	Depth to Groundwater Information: Date	Depth to Groundwater Information: Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Depth to Groundwater[1] from Top of PVC Casing (feet)	Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
1R28MW ~~211F~~ 275F	3.8	3/17/03	Y	NA	0922	3/18/03	NA	NA	6.36	12.25	
1R28MW 932F	13.6	↓	↓	↓	0907	↓	↓	↓	6.84	30.52	
1R28IW 939F	74.1	↓	↓	↓	0905	↓	↓	↓	7.03	20.46	Soft bottom Slurry residue on probe
1R28MW 362F	4.2	↓	↓	↓	0904	↓	↓	↓	7.02	16.86	Soft bottom Slurry residue on probe
1R28MW 211F	312	↓	↓	↓	0903	↓	↓	↓	6.84	15.68	Soft bottom Slurry residue on probe
1R28MW 936F	81.6	↓	↓	↓	0901	↓	↓	↓	7.13	20.14	Slurry residue on probe
1R28MW 351F	5.0	↓	↓	↓	0858	↓	↓	↓	7.09	60.98	
1R28IW 938F	12.3	↓	↓	↓	0855	↓	↓	↓	7.14	15.71	Soft bottom Slurry residue on probe
1R28MW 357F	4.1	↓	↓	↓	0853	↓	↓	↓	6.58	20.18	Long tone at 6.58
1R28MW 358F	0.5	↓	↓	↓	0852	↓	↓	↓	6.78	20.19	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: HWAKONG CHENG

Field Staff Signature: [signature]

Page No.: 1 of 3

Date: 3/18/03

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): (PID) FID

Well Identification Number	Organic Vapor Information: PID/FID Reading (ppm)	Organic Vapor Information: Date	Water Level Information: Well previously equilibrated? (Yes/No)	Water Level Information: If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Depth to Groundwater Information: Time	Depth to Groundwater Information: Date	Depth to Groundwater Information: Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Depth to Groundwater[1] from Top of PVC Casing (feet)	Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
1R28MW 359F	3.0	3/17/03	Y	NA	0917	3/18/03	NA	NA	6.64	20.35	
1R28MW 935F	4.0	↓	↓	↓	0916	↓	↓	↓	7.02	19.49	Soft bottom Silt residue on probe
1R28MW 361F	4.2	↓	↓	↓	0918	↓	↓	↓	6.78	20.32	
1R28MW 356F	2.2	↓	↓	↓	0921	↓	↓	↓	6.99	20.34	
1R28MW 355F	1.8	↓	↓	↓	0920	↓	↓	↓	7.04	20.34	
1R28MW 360F	27.1	↓	↓	↓	0910	↓	↓	↓	6.53	20.18	
1R28MW 342F	13.7	↓	↓	↓	0908	↓	↓	↓	6.81	14.63	Soft bottom Slurry residue on probe
1R28IW 940F	4.1	↓	↓	↓	0911	↓	↓	↓	6.96	20.42	Slurry residue on probe
1R28MW 937F	6.9	↓	↓	↓	0913	↓	↓	↓	6.90	20.07	Slurry residue on probe
1R28MW 341F	422	↓	↓	↓	0914	↓	↓	↓	7.14	16.61	Soft bottom Slurry residue on probe

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: HWAKONG CHENG

Field Staff Signature: [signature]

Page No.: 2 of 3

Date: 3/18/03

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
1R28MW 310F	42.3	3/17/03	Y	NA	0923	3/18/03	NA	NA	5.68	35.43	
1R28MW 311A	0.7	↓	↓	↓	0925	↓	↓	↓	5.31	19.58	
1R28MW 393F	0.0	↓	↓	↓	0926	↓	↓	↓	5.43	58.80	
1R28MW 402F	2.0	↓	↓	↓	0927	↓	↓	↓	5.55	42.31	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: HWAKONG CHENG

Field Staff Signature: [signature]

Page No.: 3 of 3

Date: 3/18/03

ENCLOSURE 4
ANALYTICAL LABORATORY REPORTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H001

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718001

Matrix: WATER Level: LOW Lab File ID: R031434

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	4.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.20	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	1.0	U
78-93-3	2-Butanone	0.71	5.0	1.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	0.20	J
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	1.0	U
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	2.0	
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H001

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718001

Matrix: WATER Level: LOW Lab File ID: R031434

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H002

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718002

Matrix: WATER Level: LOW Lab File ID: R031435

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	0.90	J
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	0.80	J
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	2.0	U
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	2.0	
78-93-3	2-Butanone	0.71	5.0	1.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	1.0	U
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	0.40	J
79-01-6	Trichloroethene	0.24	1.0	4.0	
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H002

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718002

Matrix: WATER Level: LOW Lab File ID: R031435

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO. COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7---Xylene (total)	0.64	1.0	1.0	U
98-82-8-----Isopropylbenzene	0.24	1.0	1.0	U
79-34-5-----1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1----1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7----1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1-----1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8-----1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1----1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6-----1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H003

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718003

Matrix: WATER Level: LOW Lab File ID: R031436

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	0.90	J
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	0.90	J
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.20	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	2.0	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	1.0	U
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	4.0	
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.30	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H003

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718003

Matrix: WATER Level: LOW Lab File ID: R031436

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H004

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718

Matrix: WATER Level: LOW

Sample Volume: 10.0 ML

Lab Sample ID: D9718004

Lab File ID: R031437

Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	4.0	
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	2.0	
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.20	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	6.0	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	3.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	2.0	
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	0.80	J
79-01-6	Trichloroethene	0.24	1.0	48	E
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	0.50	J
591-78-6	2-Hexanone	0.33	5.0	0.40	J
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H004

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718004

Matrix: WATER Level: LOW Lab File ID: R031437

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	0.20	J
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H004DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718004DL

Matrix: WATER Level: LOW Lab File ID: R031447

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 2.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.52	2.0	2.0	U
74-87-3	Chloromethane	0.40	2.0	2.0	U
75-01-4	Vinyl chloride	0.52	2.0	2.0	U
74-83-9	Bromomethane	0.64	2.0	2.0	U
75-00-3	Chloroethane	0.56	2.0	2.0	U
75-69-4	Trichlorofluoromethane	0.58	2.0	4.0	D
75-35-4	1,1-Dichloroethene	0.58	2.0	2.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.54	2.0	2.0	D
67-64-1	Acetone	1.2	10	2.0	DJ
75-15-0	Carbon disulfide	0.50	2.0	2.0	U
75-09-2	Methylene chloride	0.30	4.0	4.0	U
156-60-5	trans-1,2-Dichloroethene	0.56	2.0	2.0	U
1634-04-4	Methyl tert-butylether	0.44	2.0	2.0	U
75-34-3	1,1-Dichloroethane	0.24	2.0	2.0	U
156-59-2	cis-1,2-Dichloroethene	0.46	2.0	5.0	D
78-93-3	2-Butanone	1.4	10	10	U
74-97-5	Bromochloromethane	0.30	2.0	2.0	U
67-66-3	Chloroform	0.22	2.0	3.0	D
71-55-6	1,1,1-Trichloroethane	0.44	2.0	2.0	U
56-23-5	Carbon tetrachloride	0.42	2.0	2.0	D
71-43-2	Benzene	0.26	2.0	2.0	U
107-06-2	1,2-Dichloroethane	0.48	2.0	0.80	DJ
79-01-6	Trichloroethene	0.48	2.0	46	D
78-87-5	1,2-Dichloropropane	0.24	2.0	2.0	U
75-27-4	Bromodichloromethane	0.22	2.0	2.0	U
10061-01-5	cis-1,3-Dichloropropene	0.42	2.0	2.0	U
108-10-1	4-Methyl-2-pentanone	0.94	10	10	U
108-88-3	Toluene	0.46	2.0	2.0	U
10061-02-6	trans-1,3-Dichloropropene	0.40	2.0	2.0	U
79-00-5	1,1,2-Trichloroethane	0.56	2.0	2.0	U
127-18-4	Tetrachloroethene	0.52	2.0	2.0	U
591-78-6	2-Hexanone	0.66	10	10	U
124-48-1	Dibromochloromethane	0.22	2.0	2.0	U
106-93-4	1,2-Dibromoethane	0.38	2.0	2.0	U
108-90-7	Chlorobenzene	0.22	2.0	2.0	U
100-41-4	Ethylbenzene	0.42	2.0	2.0	U
100-42-5	Styrene	0.22	2.0	2.0	U
75-25-2	Bromoform	0.38	2.0	2.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H004DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718004DL

Matrix: WATER Level: LOW Lab File ID: R031447

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 2.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	1.3	2.0	2.0	U
98-82-8	Isopropylbenzene	0.48	2.0	2.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	2.0	2.0	U
541-73-1	1,3-Dichlorobenzene	0.52	2.0	2.0	U
106-46-7	1,4-Dichlorobenzene	0.20	2.0	2.0	U
95-50-1	1,2-Dichlorobenzene	0.20	2.0	2.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	10	10	U
120-82-1	1,2,4-Trichlorobenzene	0.18	2.0	2.0	U
87-61-6	1,2,3-Trichlorobenzene	0.28	2.0	2.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H005

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718005

Matrix: WATER Level: LOW Lab File ID: R031438

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	0.30	J
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	2.0	U
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	1.0	U
78-93-3	2-Butanone	0.71	5.0	0.80	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	1.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	20	
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H005

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718005

Matrix: WATER Level: LOW Lab File ID: R031438

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H006

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718006

Matrix: WATER Level: LOW Lab File ID: R031439

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	1.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.20	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	6.0	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	3.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	5.0	
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	37	
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.30	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H006

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718006

Matrix: WATER Level: LOW Lab File ID: R031439

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H007

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718007

Matrix: WATER Level: LOW Lab File ID: R031440

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	3.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.30	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	1.0	U
78-93-3	2-Butanone	0.71	5.0	2.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	3.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	88	E
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.30	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H007

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718007

Matrix: WATER Level: LOW Lab File ID: R031440

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H007DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718

Matrix: WATER Level: LOW

Sample Volume: 10.0 ML

Lab Sample ID: D9718007DL

Lab File ID: R031448

Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 5.0

CAS NO.	COMPOUND	Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane		1.3	5.0	5.0	U
74-87-3	Chloromethane		1.0	5.0	5.0	U
75-01-4	Vinyl chloride		1.3	5.0	5.0	U
74-83-9	Bromomethane		1.6	5.0	5.0	U
75-00-3	Chloroethane		1.4	5.0	5.0	U
75-69-4	Trichlorofluoromethane		1.4	5.0	5.0	U
75-35-4	1,1-Dichloroethene		1.4	5.0	5.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha		1.4	5.0	5.0	U
67-64-1	Acetone		3.1	25	4.0	DJ
75-15-0	Carbon disulfide		1.2	5.0	5.0	U
75-09-2	Methylene chloride		0.75	10	0.80	DJ
156-60-5	trans-1,2-Dichloroethene		1.4	5.0	5.0	U
1634-04-4	Methyl tert-butylether		1.1	5.0	5.0	U
75-34-3	1,1-Dichloroethane		0.60	5.0	5.0	U
156-59-2	cis-1,2-Dichloroethene		1.2	5.0	5.0	U
78-93-3	2-Butanone		3.5	25	25	U
74-97-5	Bromochloromethane		0.75	5.0	5.0	U
67-66-3	Chloroform		0.55	5.0	5.0	U
71-55-6	1,1,1-Trichloroethane		1.1	5.0	5.0	U
56-23-5	Carbon tetrachloride		1.0	5.0	5.0	U
71-43-2	Benzene		0.65	5.0	5.0	U
107-06-2	1,2-Dichloroethane		1.2	5.0	5.0	U
79-01-6	Trichloroethene		1.2	5.0	76	D
78-87-5	1,2-Dichloropropane		0.60	5.0	5.0	U
75-27-4	Bromodichloromethane		0.55	5.0	5.0	U
10061-01-5	cis-1,3-Dichloropropene		1.0	5.0	5.0	U
108-10-1	4-Methyl-2-pentanone		2.4	25	25	U
108-88-3	Toluene		1.2	5.0	5.0	U
10061-02-6	trans-1,3-Dichloropropene		1.0	5.0	5.0	U
79-00-5	1,1,2-Trichloroethane		1.4	5.0	5.0	U
127-18-4	Tetrachloroethene		1.3	5.0	5.0	U
591-78-6	2-Hexanone		1.6	25	25	U
124-48-1	Dibromochloromethane		0.55	5.0	5.0	U
106-93-4	1,2-Dibromoethane		0.95	5.0	5.0	U
108-90-7	Chlorobenzene		0.55	5.0	5.0	U
100-41-4	Ethylbenzene		1.0	5.0	5.0	U
100-42-5	Styrene		0.55	5.0	5.0	U
75-25-2	Bromoform		0.95	5.0	5.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H007DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718007DL

Matrix: WATER Level: LOW Lab File ID: R031448

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 5.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	3.2	5.0	5.0	U
98-82-8	Isopropylbenzene	1.2	5.0	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	5.0	5.0	U
541-73-1	1,3-Dichlorobenzene	1.3	5.0	5.0	U
106-46-7	1,4-Dichlorobenzene	0.50	5.0	5.0	U
95-50-1	1,2-Dichlorobenzene	0.50	5.0	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	3.4	25	25	U
120-82-1	1,2,4-Trichlorobenzene	0.45	5.0	5.0	U
87-61-6	1,2,3-Trichlorobenzene	0.70	5.0	5.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H008

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718008

Matrix: WATER Level: LOW Lab File ID: R031441

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	0.30	J
75-01-4	Vinyl chloride	0.26	1.0	0.70	J
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	0.60	J
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	4.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	4.0	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	0.40	J
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	8.0	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	13	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	10	
79-01-6	Trichloroethene	0.24	1.0	200	E
78-87-5	1,2-Dichloropropane	0.12	1.0	0.30	J
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.60	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	
127-18-4	Tetrachloroethene	0.26	1.0	2.0	
591-78-6	2-Hexanone	0.33	5.0	0.40	J
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H008

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718008

Matrix: WATER Level: LOW Lab File ID: R031441

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H008DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718008DL

Matrix: WATER Level: LOW Lab File ID: R031449

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 10.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	2.6	10	10	U
74-87-3	Chloromethane	2.0	10	10	U
75-01-4	Vinyl chloride	2.6	10	10	U
74-83-9	Bromomethane	3.2	10	10	U
75-00-3	Chloroethane	2.8	10	10	U
75-69-4	Trichlorofluoromethane	2.9	10	10	U
75-35-4	1,1-Dichloroethene	2.9	10	10	U
76-13-1	1,1,2-Trichlorotrifluoroetha	2.7	10	10	U
67-64-1	Acetone	6.2	50	10	DJ
75-15-0	Carbon disulfide	2.5	10	10	U
75-09-2	Methylene chloride	1.5	20	5.0	DJ
156-60-5	trans-1,2-Dichloroethene	2.8	10	10	U
1634-04-4	Methyl tert-butylether	2.2	10	10	U
75-34-3	1,1-Dichloroethane	1.2	10	10	U
156-59-2	cis-1,2-Dichloroethene	2.3	10	6.0	DJ
78-93-3	2-Butanone	7.1	50	50	U
74-97-5	Bromochloromethane	1.5	10	10	U
67-66-3	Chloroform	1.1	10	12	D
71-55-6	1,1,1-Trichloroethane	2.2	10	10	U
56-23-5	Carbon tetrachloride	2.1	10	10	U
71-43-2	Benzene	1.3	10	10	U
107-06-2	1,2-Dichloroethane	2.4	10	8.0	DJ
79-01-6	Trichloroethene	2.4	10	180	D
78-87-5	1,2-Dichloropropane	1.2	10	10	U
75-27-4	Bromodichloromethane	1.1	10	10	U
10061-01-5	cis-1,3-Dichloropropene	2.1	10	10	U
108-10-1	4-Methyl-2-pentanone	4.7	50	50	U
108-88-3	Toluene	2.3	10	10	U
10061-02-6	trans-1,3-Dichloropropene	2.0	10	10	U
79-00-5	1,1,2-Trichloroethane	2.8	10	10	U
127-18-4	Tetrachloroethene	2.6	10	10	U
591-78-6	2-Hexanone	3.3	50	50	U
124-48-1	Dibromochloromethane	1.1	10	10	U
106-93-4	1,2-Dibromoethane	1.9	10	10	U
108-90-7	Chlorobenzene	1.1	10	10	U
100-41-4	Ethylbenzene	2.1	10	10	U
100-42-5	Styrene	1.1	10	10	U
75-25-2	Bromoform	1.9	10	10	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H008DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718008DL

Matrix: WATER Level: LOW Lab File ID: R031449

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 10.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	6.4	10	10	U
98-82-8	Isopropylbenzene	2.4	10	10	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	10	10	U
541-73-1	1,3-Dichlorobenzene	2.6	10	10	U
106-46-7	1,4-Dichlorobenzene	1.0	10	10	U
95-50-1	1,2-Dichlorobenzene	1.0	10	10	U
96-12-8	1,2-Dibromo-3-chloropropane	6.8	50	50	U
120-82-1	1,2,4-Trichlorobenzene	0.90	10	10	U
87-61-6	1,2,3-Trichlorobenzene	1.4	10	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H009

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718009

Matrix: WATER Level: LOW Lab File ID: R031442

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	3.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.20	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	1.0	U
78-93-3	2-Butanone	0.71	5.0	1.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	0.30	J
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	1.0	U
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	0.20	J
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.30	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H009

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718009

Matrix: WATER Level: LOW Lab File ID: R031442

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H010

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718010

Matrix: WATER Level: LOW Lab File ID: R031443

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	0.30	J
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	1.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	2.0	U
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	1.0	U
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	2.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	45	E
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H010

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718010

Matrix: WATER Level: LOW Lab File ID: R031443

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H010DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718010DL

Matrix: WATER Level: LOW Lab File ID: R031450

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 2.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.52	2.0	2.0	U
74-87-3	Chloromethane	0.40	2.0	2.0	U
75-01-4	Vinyl chloride	0.52	2.0	2.0	U
74-83-9	Bromomethane	0.64	2.0	2.0	U
75-00-3	Chloroethane	0.56	2.0	2.0	U
75-69-4	Trichlorofluoromethane	0.58	2.0	2.0	U
75-35-4	1,1-Dichloroethene	0.58	2.0	2.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.54	2.0	2.0	U
67-64-1	Acetone	1.2	10	2.0	DJ
75-15-0	Carbon disulfide	0.50	2.0	2.0	U
75-09-2	Methylene chloride	0.30	4.0	4.0	U
156-60-5	trans-1,2-Dichloroethene	0.56	2.0	2.0	U
1634-04-4	Methyl tert-butylether	0.44	2.0	2.0	U
75-34-3	1,1-Dichloroethane	0.24	2.0	2.0	U
156-59-2	cis-1,2-Dichloroethene	0.46	2.0	2.0	U
78-93-3	2-Butanone	1.4	10	10	U
74-97-5	Bromochloromethane	0.30	2.0	2.0	U
67-66-3	Chloroform	0.22	2.0	2.0	D
71-55-6	1,1,1-Trichloroethane	0.44	2.0	2.0	U
56-23-5	Carbon tetrachloride	0.42	2.0	2.0	U
71-43-2	Benzene	0.26	2.0	2.0	U
107-06-2	1,2-Dichloroethane	0.48	2.0	2.0	U
79-01-6	Trichloroethene	0.48	2.0	47	D
78-87-5	1,2-Dichloropropane	0.24	2.0	2.0	U
75-27-4	Bromodichloromethane	0.22	2.0	2.0	U
10061-01-5	cis-1,3-Dichloropropene	0.42	2.0	2.0	U
108-10-1	4-Methyl-2-pentanone	0.94	10	10	U
108-88-3	Toluene	0.46	2.0	2.0	U
10061-02-6	trans-1,3-Dichloropropene	0.40	2.0	2.0	U
79-00-5	1,1,2-Trichloroethane	0.56	2.0	2.0	U
127-18-4	Tetrachloroethene	0.52	2.0	2.0	U
591-78-6	2-Hexanone	0.66	10	10	U
124-48-1	Dibromochloromethane	0.22	2.0	2.0	U
106-93-4	1,2-Dibromoethane	0.38	2.0	2.0	U
108-90-7	Chlorobenzene	0.22	2.0	2.0	U
100-41-4	Ethylbenzene	0.42	2.0	2.0	U
100-42-5	Styrene	0.22	2.0	2.0	U
75-25-2	Bromoform	0.38	2.0	2.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H010DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718010DL

Matrix: WATER Level: LOW Lab File ID: R031450

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 2.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	1.3	2.0	2.0	U
98-82-8	Isopropylbenzene	0.48	2.0	2.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	2.0	2.0	U
541-73-1	1,3-Dichlorobenzene	0.52	2.0	2.0	U
106-46-7	1,4-Dichlorobenzene	0.20	2.0	2.0	U
95-50-1	1,2-Dichlorobenzene	0.20	2.0	2.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.4	10	10	U
120-82-1	1,2,4-Trichlorobenzene	0.18	2.0	2.0	U
87-61-6	1,2,3-Trichlorobenzene	0.28	2.0	2.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H010Z

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718011

Matrix: WATER Level: LOW Lab File ID: R031444

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	0.50	J
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	1.0	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	0.60	J
78-93-3	2-Butanone	0.71	5.0	1.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	3.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	25	
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.40	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H010Z

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718011

Matrix: WATER Level: LOW Lab File ID: R031444

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H011

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718012

Matrix: WATER Level: LOW Lab File ID: R031445

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	2.0	U
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	1.0	U
78-93-3	2-Butanone	0.71	5.0	1.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	1.0	U
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	0.90	J
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H011

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718012

Matrix: WATER Level: LOW Lab File ID: R031445

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H012

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718013

Matrix: WATER Level: LOW Lab File ID: R031446

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	0.50	J
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	1.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	6.0	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	4.0	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	5.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	4.0	
79-01-6	Trichloroethene	0.24	1.0	200	E
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	3.0	
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H012

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718013

Matrix: WATER Level: LOW Lab File ID: R031446

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H012DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718013DL

Matrix: WATER Level: LOW Lab File ID: R031463

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 10.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	2.6	10	10	U
74-87-3	Chloromethane	2.0	10	10	U
75-01-4	Vinyl chloride	2.6	10	10	U
74-83-9	Bromomethane	3.2	10	10	U
75-00-3	Chloroethane	2.8	10	10	U
75-69-4	Trichlorofluoromethane	2.9	10	10	U
75-35-4	1,1-Dichloroethene	2.9	10	10	U
76-13-1	1,1,2-Trichlorotrifluoroetha	2.7	10	10	U
67-64-1	Acetone	6.2	50	20	DJ
75-15-0	Carbon disulfide	2.5	10	10	U
75-09-2	Methylene chloride	1.5	20	6.0	DJ
156-60-5	trans-1,2-Dichloroethene	2.8	10	10	U
1634-04-4	Methyl tert-butylether	2.2	10	10	U
75-34-3	1,1-Dichloroethane	1.2	10	10	U
156-59-2	cis-1,2-Dichloroethene	2.3	10	3.0	DJ
78-93-3	2-Butanone	7.1	50	50	U
74-97-5	Bromochloromethane	1.5	10	10	U
67-66-3	Chloroform	1.1	10	5.0	DJ
71-55-6	1,1,1-Trichloroethane	2.2	10	10	U
56-23-5	Carbon tetrachloride	2.1	10	10	U
71-43-2	Benzene	1.3	10	10	U
107-06-2	1,2-Dichloroethane	2.4	10	4.0	DJ
79-01-6	Trichloroethene	2.4	10	160	D
78-87-5	1,2-Dichloropropane	1.2	10	10	U
75-27-4	Bromodichloromethane	1.1	10	10	U
10061-01-5	cis-1,3-Dichloropropene	2.1	10	10	U
108-10-1	4-Methyl-2-pentanone	4.7	50	50	U
108-88-3	Toluene	2.3	10	10	U
10061-02-6	trans-1,3-Dichloropropene	2.0	10	10	U
79-00-5	1,1,2-Trichloroethane	2.8	10	10	U
127-18-4	Tetrachloroethene	2.6	10	10	U
591-78-6	2-Hexanone	3.3	50	50	U
124-48-1	Dibromochloromethane	1.1	10	10	U
106-93-4	1,2-Dibromoethane	1.9	10	10	U
108-90-7	Chlorobenzene	1.1	10	10	U
100-41-4	Ethylbenzene	2.1	10	10	U
100-42-5	Styrene	1.1	10	10	U
75-25-2	Bromoform	1.9	10	10	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H012DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718013DL

Matrix: WATER Level: LOW Lab File ID: R031463

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 10.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	6.4	10	10	U
98-82-8	Isopropylbenzene	2.4	10	10	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	10	10	U
541-73-1	1,3-Dichlorobenzene	2.6	10	10	U
106-46-7	1,4-Dichlorobenzene	1.0	10	10	U
95-50-1	1,2-Dichlorobenzene	1.0	10	10	U
96-12-8	1,2-Dibromo-3-chloropropane	6.8	50	50	U
120-82-1	1,2,4-Trichlorobenzene	0.90	10	10	U
87-61-6	1,2,3-Trichlorobenzene	1.4	10	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H013

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718014

Matrix: WATER Level: LOW Lab File ID: R031454

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	0.40	J
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	15	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	0.20	J
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	0.30	J
78-93-3	2-Butanone	0.71	5.0	1.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	1.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	32	
79-01-6	Trichloroethene	0.24	1.0	4.0	
78-87-5	1,2-Dichloropropane	0.12	1.0	0.30	J
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	3.0	
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H013

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718014

Matrix: WATER Level: LOW Lab File ID: R031454

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/27/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H014

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718015

Matrix: WATER Level: LOW Lab File ID: R031462

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	0.30	J
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	2.0	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	0.90	J
78-93-3	2-Butanone	0.71	5.0	2.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	0.20	J
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	
79-01-6	Trichloroethene	0.24	1.0	23	
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.50	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	0.50	J
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H014

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718015

Matrix: WATER Level: LOW Lab File ID: R031462

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H015

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718016

Matrix: WATER Level: LOW Lab File ID: R031464

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	0.60	J
75-09-2	Methylene chloride	0.15	2.0	2.0	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	0.90	J
78-93-3	2-Butanone	0.71	5.0	2.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	0.20	J
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	
79-01-6	Trichloroethene	0.24	1.0	22	
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.60	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	0.60	J
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H015

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718016

Matrix: WATER Level: LOW Lab File ID: R031464

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H016

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718017

Matrix: WATER Level: LOW Lab File ID: R031465

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	5.0	
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	3.0	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	2.0	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	6.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	86	E
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.60	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H016

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718017

Matrix: WATER Level: LOW Lab File ID: R031465

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H016DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718017DL

Matrix: WATER Level: LOW Lab File ID: R031468

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 5.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	1.3	5.0	5.0	U
74-87-3	Chloromethane	1.0	5.0	5.0	U
75-01-4	Vinyl chloride	1.3	5.0	5.0	U
74-83-9	Bromomethane	1.6	5.0	5.0	U
75-00-3	Chloroethane	1.4	5.0	5.0	U
75-69-4	Trichlorofluoromethane	1.4	5.0	5.0	U
75-35-4	1,1-Dichloroethene	1.4	5.0	5.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	1.4	5.0	5.0	U
67-64-1	Acetone	3.1	25	8.0	DJ
75-15-0	Carbon disulfide	1.2	5.0	5.0	U
75-09-2	Methylene chloride	0.75	10	3.0	DJ
156-60-5	trans-1,2-Dichloroethene	1.4	5.0	5.0	U
1634-04-4	Methyl tert-butylether	1.1	5.0	5.0	U
75-34-3	1,1-Dichloroethane	0.60	5.0	5.0	U
156-59-2	cis-1,2-Dichloroethene	1.2	5.0	2.0	DJ
78-93-3	2-Butanone	3.5	25	25	U
74-97-5	Bromochloromethane	0.75	5.0	5.0	U
67-66-3	Chloroform	0.55	5.0	6.0	D
71-55-6	1,1,1-Trichloroethane	1.1	5.0	5.0	U
56-23-5	Carbon tetrachloride	1.0	5.0	5.0	U
71-43-2	Benzene	0.65	5.0	5.0	U
107-06-2	1,2-Dichloroethane	1.2	5.0	5.0	U
79-01-6	Trichloroethene	1.2	5.0	83	D
78-87-5	1,2-Dichloropropane	0.60	5.0	5.0	U
75-27-4	Bromodichloromethane	0.55	5.0	5.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	5.0	5.0	U
108-10-1	4-Methyl-2-pentanone	2.4	25	25	U
108-88-3	Toluene	1.2	5.0	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	5.0	5.0	U
79-00-5	1,1,2-Trichloroethane	1.4	5.0	5.0	U
127-18-4	Tetrachloroethene	1.3	5.0	5.0	U
591-78-6	2-Hexanone	1.6	25	25	U
124-48-1	Dibromochloromethane	0.55	5.0	5.0	U
106-93-4	1,2-Dibromoethane	0.95	5.0	5.0	U
108-90-7	Chlorobenzene	0.55	5.0	5.0	U
100-41-4	Ethylbenzene	1.0	5.0	5.0	U
100-42-5	Styrene	0.55	5.0	5.0	U
75-25-2	Bromoform	0.95	5.0	5.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H016DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718017DL

Matrix: WATER Level: LOW Lab File ID: R031468

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 5.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	3.2	5.0	5.0	U
98-82-8	Isopropylbenzene	1.2	5.0	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	5.0	5.0	U
541-73-1	1,3-Dichlorobenzene	1.3	5.0	5.0	U
106-46-7	1,4-Dichlorobenzene	0.50	5.0	5.0	U
95-50-1	1,2-Dichlorobenzene	0.50	5.0	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	3.4	25	25	U
120-82-1	1,2,4-Trichlorobenzene	0.45	5.0	5.0	U
87-61-6	1,2,3-Trichlorobenzene	0.70	5.0	5.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H017

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718018

Matrix: WATER Level: LOW Lab File ID: R031466

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	1.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	2.0	U
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	3.0	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	2.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	88	E
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.30	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	30	
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H017

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718

Matrix: WATER Level: LOW

Sample Volume: 10.0 ML

Lab Sample ID: D9718018

Lab File ID: R031466

Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H017DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718

Matrix: WATER Level: LOW

Sample Volume: 10.0 ML

Lab Sample ID: D9718018DL

Lab File ID: R031469

Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 5.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	1.3	5.0	5.0	U
74-87-3	Chloromethane	1.0	5.0	5.0	U
75-01-4	Vinyl chloride	1.3	5.0	5.0	U
74-83-9	Bromomethane	1.6	5.0	5.0	U
75-00-3	Chloroethane	1.4	5.0	5.0	U
75-69-4	Trichlorofluoromethane	1.4	5.0	5.0	U
75-35-4	1,1-Dichloroethene	1.4	5.0	5.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	1.4	5.0	5.0	U
67-64-1	Acetone	3.1	25	7.0	DJ
75-15-0	Carbon disulfide	1.2	5.0	5.0	U
75-09-2	Methylene chloride	0.75	10	0.80	DJ
156-60-5	trans-1,2-Dichloroethene	1.4	5.0	5.0	U
1634-04-4	Methyl tert-butylether	1.1	5.0	5.0	U
75-34-3	1,1-Dichloroethane	0.60	5.0	5.0	U
156-59-2	cis-1,2-Dichloroethene	1.2	5.0	3.0	DJ
78-93-3	2-Butanone	3.5	25	25	U
74-97-5	Bromochloromethane	0.75	5.0	5.0	U
67-66-3	Chloroform	0.55	5.0	2.0	DJ
71-55-6	1,1,1-Trichloroethane	1.1	5.0	5.0	U
56-23-5	Carbon tetrachloride	1.0	5.0	5.0	U
71-43-2	Benzene	0.65	5.0	5.0	U
107-06-2	1,2-Dichloroethane	1.2	5.0	5.0	U
79-01-6	Trichloroethene	1.2	5.0	85	D
78-87-5	1,2-Dichloropropane	0.60	5.0	5.0	U
75-27-4	Bromodichloromethane	0.55	5.0	5.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	5.0	5.0	U
108-10-1	4-Methyl-2-pentanone	2.4	25	25	U
108-88-3	Toluene	1.2	5.0	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	5.0	5.0	U
79-00-5	1,1,2-Trichloroethane	1.4	5.0	5.0	U
127-18-4	Tetrachloroethene	1.3	5.0	25	D
591-78-6	2-Hexanone	1.6	25	25	U
124-48-1	Dibromochloromethane	0.55	5.0	5.0	U
106-93-4	1,2-Dibromoethane	0.95	5.0	5.0	U
108-90-7	Chlorobenzene	0.55	5.0	5.0	U
100-41-4	Ethylbenzene	1.0	5.0	5.0	U
100-42-5	Styrene	0.55	5.0	5.0	U
75-25-2	Bromoform	0.95	5.0	5.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H017DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718

Matrix: WATER Level: LOW

Sample Volume: 10.0 ML

Lab Sample ID: D9718018DL

Lab File ID: R031469

Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 5.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	3.2	5.0	5.0	U
98-82-8	Isopropylbenzene	1.2	5.0	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	5.0	5.0	U
541-73-1	1,3-Dichlorobenzene	1.3	5.0	5.0	U
106-46-7	1,4-Dichlorobenzene	0.50	5.0	5.0	U
95-50-1	1,2-Dichlorobenzene	0.50	5.0	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	3.4	25	25	U
120-82-1	1,2,4-Trichlorobenzene	0.45	5.0	5.0	U
87-61-6	1,2,3-Trichlorobenzene	0.70	5.0	5.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H018

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718

Matrix: WATER Level: LOW

Sample Volume: 10.0 ML

Lab Sample ID: D9718019

Lab File ID: R031467

Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	3.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.30	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	1.0	U
78-93-3	2-Butanone	0.71	5.0	1.0	J
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	0.30	J
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	1.0	U
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	0.20	J
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	2.0	
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H018

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9718 SDG No.: D9718 Lab Sample ID: D9718019

Matrix: WATER Level: LOW Lab File ID: R031467

Sample Volume: 10.0 ML Date Received: 03/20/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H002

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718002

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	14.0	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H003

ntract: TTEMI/HUNTER'S PT

b Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718003

vel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	31.1	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

Columbia Analytical Services, Inc.

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H004

ntract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718004

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.5	B	N	F
7439-89-6	Iron	62.9	B		P
7439-96-5	Manganese	165			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

olumbia Analytical Services, Inc.

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H005

ntract: TTEMI/HUNTER'S PT

b Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718005

vel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.5		N	F
7439-89-6	Iron	14.2	B		P
7439-96-5	Manganese	1.4	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H006

tract: TTEMI/HUNTER'S PT

b Code: RDD Case No.: SAS No.: SDG NO.: D9718

rix (soil/water): WATER Lab Sample ID: D9718006

vel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.4		N	F
7439-89-6	Iron	6.3	B		P
7439-96-5	Manganese	1.0	U		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

Columbia Analytical Services, Inc.

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H007

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718007

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.2		N	F
7439-89-6	Iron	12.8	B		P
7439-96-5	Manganese	38.6			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H008

tract: TTEMI/HUNTER'S PT

Code: RDD Case No.: SAS No.: SDG NO.: D9718

rix (soil/water): WATER Lab Sample ID: D9718008

el (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	80.8	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H009

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718009

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.0	U	N	F
7439-96-5	Manganese	1.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H010

ntract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718010

vel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	8.3	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H010Z

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718011

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	74.8	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H011

ntract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718012

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.8		N	F
7439-89-6	Iron	6.6	B		P
7439-96-5	Manganese	2.0	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H012

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718013

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	13.6	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H013

ntract: TTEMI/HUNTER'S PT

b Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718014

vel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	58.3	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H014

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718015

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.0	U	N	F
7439-89-6	Iron	6540			P
7439-96-5	Manganese	860			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H015

ntract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718016

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.3		N	F
7439-89-6	Iron	13200			P
7439-96-5	Manganese	1440			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H016

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718017

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	62.9	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H017

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718018

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	7.8	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H018

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718019

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.0	U	N	F
7439-96-5	Manganese	1.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H002T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718020

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	51.0	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H003T

:ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718021

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	67.1	B		P

:olor Before: Clarity Before: Texture:

:olor After: Clarity After: Artifacts:

:omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H004T

ntract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718022

vel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	121			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

Columbia Analytical Services, Inc.

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H005T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718023

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	42.2	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H006T

ntract: TTEMI/HUNTER'S PT

b Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718024

vel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	22.2	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

Columbia Analytical Services, Inc.

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H007T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718025

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	226			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H008T

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718026

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	340			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H009T

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718027

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	4.2	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H010T

ntract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718028

vel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	108			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H010ZT

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718029

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	1030			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H011T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718030

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	132			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Columbia Analytical Services, Inc.

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H012T

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718031

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	569			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H013T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718032

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	305			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H014T

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718033

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	29600			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

olumbia Analytical Services, Inc.

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H015T

ntract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718034

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	28700			P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H016T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9718

Matrix (soil/water): WATER Lab Sample ID: D9718035

Level (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	2850			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H017T

ntract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

trix (soil/water): WATER Lab Sample ID: D9718036

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	59.8	B		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H018T

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9718

atrix (soil/water): WATER Lab Sample ID: D9718037

evel (low/med): LOW Date Received: 03/20/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	4.0	U		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

Report of Analytical Results

Client Sample ID: 0312H002
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/18/03 11:40 (Tue)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718002

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	256	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	13600	mg/L	1000	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H004
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/18/03 14:40 (Tue)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718004

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	100	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	2430	mg/L	200	03/26/03 23:41	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H004DUP
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/18/03 14:40 (Tue)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718004D

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
ANIONS Chloride	2460	mg/L	200	03/26/03 23:59	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H004MS
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/18/03 14:40 (Tue)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718004MS

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
ANIONS Chloride	3270	mg/L	200	03/27/03 00:17	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H005
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/18/03 14:45 (Tue)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718005

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	140	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	71.4	mg/L	10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H006
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/18/03 15:40 (Tue)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718006

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	160	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	149	mg/L	20	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H007
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/18/03 16:10 (Tue)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718007

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	120	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	66.6	mg/L	10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H008
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/18/03 16:55 (Tue)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718008

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	70	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	99.1	mg/L	10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H010
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/19/03 10:25 (Wed)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718010

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	146	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	67.6	mg/L	10	03/20/03 00:00	EPA300.0
NUTRIENTS					
Nitrate as N	3.04	mg/L	0.10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H010Z
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/19/03 10:40 (Wed)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718011

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	54	mg/L	10	03/27/03 13:00	EPA310.1
ANIONS					
Chloride	132	mg/L	10	03/20/03 00:00	EPA300.0
NUTRIENTS					
Nitrate as N	0.53	mg/L	0.10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H011
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/19/03 11:30 (Wed)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718012

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	191	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	47.6	mg/L	10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H012
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/19/03 11:30 (Wed)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718013

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	23	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	120	mg/L	10	03/20/03 00:00	EPA300.0
NUTRIENTS					
Nitrate as N	0.02 U	mg/L	0.10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H013
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/19/03 14:10 (Wed)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718014

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	19	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	129	mg/L	10	03/20/03 00:00	EPA300.0
NUTRIENTS					
Nitrate as N	0.02 U	mg/L	0.10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H014
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/19/03 14:15 (Wed)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718015

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	38	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	107	mg/L	10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H016
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/19/03 15:30 (Wed)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718017

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	119	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	89.6	mg/L	10	03/20/03 00:00	EPA300.0
NUTRIENTS					
Nitrate as N	0.02 U	mg/L	0.10	03/20/03 00:00	EPA300.0

(19713)

Report of Analytical Results

Client Sample ID: 0312H017
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/19/03 15:35 (Wed)
Date Received: 03/20/03 10:00 (Thu)

Reference No: D9718
Lab Sample ID: D9718018

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	141	mg/L	10	03/21/03 13:00	EPA310.1
ANIONS					
Chloride	12.7	mg/L	1.0	03/20/03 00:00	EPA300.0

(19713)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Tetra Tech**
Client Project ID: **Hunter's Point**

CAS Project ID: P2300556

Hydrogen

Test Code: RSK 175
Instrument ID: HP5890A/TCD #8
Analyst: Regan Lau / Wade Henton
Sampling Media: Liquid
Test Notes:

Date(s) Collected: 3/18 - 3/19/03
Date Received: 3/25/03
Date(s) Analyzed: 3/27/03
Volume(s) Analyzed: 0.10 ml

Client Sample ID	CAS Sample ID	D.F.	Hydrogen µg/L Result	MRL	MDL	Data Qualifier
0312H002	P2300556-001	1.00	ND	17.0	5.00	
0312H004	P2300556-002	1.00	ND	17.0	5.00	
0312H005	P2300556-003	1.00	ND	17.0	5.00	
0312H006	P2300556-004	1.00	ND	17.0	5.00	
0312H007	P2300556-005	1.00	ND	17.0	5.00	
0312H008	P2300556-006	1.00	ND	17.0	5.00	
0312H010	P2300556-007	1.00	ND	17.0	5.00	
0312H010Z	P2300556-008	1.00	ND	17.0	5.00	
0312H011	P2300556-009	1.00	ND	17.0	5.00	
0312H012	P2300556-010	1.00	**35.9**	17.0	5.00	
0312H013	P2300556-011	1.00	**163**	17.0	5.00	
0312H013	P2300556-011DUP	1.00	**163**	17.0	5.00	
0312H014	P2300556-012	1.00	**30.9**	17.0	5.00	
0312H016	P2300556-013	1.00	ND	17.0	5.00	
0312H017	P2300556-014	1.00	ND	17.0	5.00	
Method Control Sample	P030327-MB	1.00	ND	17.0	5.00	

The Method Control Sample is laboratory water carried through the entire analytical process.
ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

:lient: **Tetra Tech**
lient Sample ID: 0312H002
lient Project ID: Hunter's Point

CAS Project ID: P2300556
CAS Sample ID: P2300556-001

:st Code: RSK 175
strument ID: HP5890A/FID #10
nalyst: Regan Lau / Wade Henton
ampling Media: Liquid
:st Notes:

Date Collected: 3/18/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml(s)

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	**0.40**	1.5	0.40	J
74-84-0	Ethane	**0.36**	0.50	0.30	J

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit;
the associated numerical value is considered estimated.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

nt: **Tetra Tech**
ient Sample ID: **0312H004**
ient Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-002

st Code: RSK 175
strument ID: HP5890A/FID #10
alyst: Regan Lau / Wade Henton
mpling Media: Liquid
st Notes:

Date Collected: 3/18/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
74-84-0	Ethane	ND	0.50	0.30	

= Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

'lient: **Tetra Tech**
lient Sample ID: **0312H005**
lient Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-003

:st Code: RSK 175
strument ID: HP5890A/FID #10
nalyst: Regan Lau / Wade Henton
ımpling Media: Liquid
:st Notes:

Date Collected: 3/18/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
74-84-0	Ethane	ND	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

ient: **Tetra Tech**
ient Sample ID: **0312H006**
lient Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-004

:st Code: RSK 175
strument ID: HP5890A/FID #10
alyst: Regan Lau / Wade Henton
impling Media: Liquid
:st Notes:

Date Collected: 3/18/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
4-84-0	Ethane	ND	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

:lient: **Tetra Tech**
:lient Sample ID: **0312H007**
:lient Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-005

est Code: RSK 175
ıstrument ID: HP5890A/FID #10
nalyst: Regan Lau / Wade Henton
ımpling Media: Liquid
est Notes:

Date Collected: 3/18/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
74-84-0	Ethane	**0.54**	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

nt: **Tetra Tech**
lient Sample ID: **0312H008**
lient Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-006

est Code: RSK 175
nstrument ID: HP5890A/FID #10
nalyst: Regan Lau / Wade Henton
mpling Media: Liquid
est Notes:

Date Collected: 3/18/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	17	1.5	0.40	
74-84-0	Ethane	45	0.50	0.30	

= Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

00556SVG.TO1- Sample (6)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Tetra Tech**
Client Sample ID: **0312H010**
Client Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-007

Test Code: RSK 175
Instrument ID: HP5890A/FID #10
Analyst: Regan Lau / Wade Henton
Sampling Media: Liquid
Test Notes:

Date Collected: 3/19/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
74-84-0	Ethane	ND	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Tetra Tech**
Client Sample ID: **0312H010Z**
Client Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-008

Test Code: RSK 175
Instrument ID: HP5890A/FID #10
Analyst: Regan Lau / Wade Henton
Sampling Media: Liquid
Test Notes:

Date Collected: 3/19/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
74-84-0	Ethane	5.6	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

00556SVG.TO1- Sample (8)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Tetra Tech**
Client Sample ID: **0312H011**
Client Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-009

Test Code: RSK 175
Instrument ID: HP5890A/FID #10
Analyst: Regan Lau / Wade Henton
Sampling Media: Liquid
Test Notes:

Date Collected: 3/19/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
74-84-0	Ethane	ND	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Tetra Tech**
Client Sample ID: **0312H012**
Client Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-010

Test Code: RSK 175
Instrument ID: HP5890A/FID #10
Analyst: Regan Lau / Wade Henton
Sampling Media: Liquid
Test Notes:

Date Collected: 3/19/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	19	1.5	0.40	
74-84-0	Ethane	54	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

00556SVG.TO1- Sample (10)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Tetra Tech**
Client Sample ID: **0312H013**
Client Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-011

Test Code: RSK 175
Instrument ID: HP5890A/FID #10
Analyst: Regan Lau / Wade Henton
Sampling Media: Liquid
Test Notes:

Date Collected: 3/19/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	4.5	1.5	0.40	
74-84-0	Ethane	12	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Tetra Tech**
Client Sample ID: **0312H014**
Client Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-012

Test Code: RSK 175
Instrument ID: HP5890A/FID #10
Analyst: Regan Lau / Wade Henton
Sampling Media: Liquid
Test Notes:

Date Collected: 3/19/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	3.2	1.5	0.40	
74-84-0	Ethane	4.9	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

:lient: **Tetra Tech**
:lient Sample ID: **0312H016**
:lient Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-013

:st Code: RSK 175
istrument ID: HP5890A/FID #10
nalyst: Regan Lau / Wade Henton
ampling Media: Liquid
:st Notes:

Date Collected: 3/19/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	2.3	1.5	0.40	
74-84-0	Ethane	5.9	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

ient: **Tetra Tech**
ient Sample ID: **0312H017**
lient Project ID: **Hunter's Point**

CAS Project ID: P2300556
CAS Sample ID: P2300556-014

est Code: RSK 175
trument ID: HP5890A/FID #10
alyst: Regan Lau / Wade Henton
mpling Media: Liquid
st Notes:

Date Collected: 3/19/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
4-84-0	Ethane	ND	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/2/03

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H019

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737001

Matrix: WATER Level: LOW Lab File ID: R031472

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.20	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	1.0	U
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	1.0	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	1.0	U
79-01-6	Trichloroethene	0.24	1.0	1.0	U
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	U
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.50	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H019

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737001

Matrix: WATER Level: LOW Lab File ID: R031472

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H020

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737002

Matrix: WATER Level: LOW Lab File ID: R031473

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	1.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.50	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	0.20	J
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	11	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	25	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	3.0	
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	4.0	
79-01-6	Trichloroethene	0.24	1.0	300	E
78-87-5	1,2-Dichloropropane	0.12	1.0	0.20	J
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	0.60	J
127-18-4	Tetrachloroethene	0.26	1.0	10	
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H020

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737002

Matrix: WATER Level: LOW Lab File ID: R031473

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H020DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737002DL

Matrix: WATER Level: LOW Lab File ID: R031479

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 40.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	10	40	40	U
74-87-3	Chloromethane	8.0	40	40	U
75-01-4	Vinyl chloride	10	40	40	U
74-83-9	Bromomethane	13	40	40	U
75-00-3	Chloroethane	11	40	40	U
75-69-4	Trichlorofluoromethane	12	40	40	U
75-35-4	1,1-Dichloroethene	12	40	40	U
76-13-1	1,1,2-Trichlorotrifluoroetha	11	40	40	U
67-64-1	Acetone	25	200	31	DJ
75-15-0	Carbon disulfide	10	40	40	U
75-09-2	Methylene chloride	6.0	80	7.0	DJ
156-60-5	trans-1,2-Dichloroethene	11	40	40	U
1634-04-4	Methyl tert-butylether	8.8	40	40	U
75-34-3	1,1-Dichloroethane	4.8	40	40	U
156-59-2	cis-1,2-Dichloroethene	9.2	40	10	DJ
78-93-3	2-Butanone	28	200	200	U
74-97-5	Bromochloromethane	6.0	40	40	U
67-66-3	Chloroform	4.4	40	31	DJ
71-55-6	1,1,1-Trichloroethane	8.8	40	40	U
56-23-5	Carbon tetrachloride	8.4	40	40	U
71-43-2	Benzene	5.2	40	40	U
107-06-2	1,2-Dichloroethane	9.6	40	40	U
79-01-6	Trichloroethene	9.6	40	630	D
78-87-5	1,2-Dichloropropane	4.8	40	40	U
75-27-4	Bromodichloromethane	4.4	40	40	U
10061-01-5	cis-1,3-Dichloropropene	8.4	40	40	U
108-10-1	4-Methyl-2-pentanone	19	200	200	U
108-88-3	Toluene	9.2	40	40	U
10061-02-6	trans-1,3-Dichloropropene	8.0	40	40	U
79-00-5	1,1,2-Trichloroethane	11	40	40	U
127-18-4	Tetrachloroethene	10	40	40	U
591-78-6	2-Hexanone	13	200	200	U
124-48-1	Dibromochloromethane	4.4	40	40	U
106-93-4	1,2-Dibromoethane	7.6	40	40	U
108-90-7	Chlorobenzene	4.4	40	40	U
100-41-4	Ethylbenzene	8.4	40	40	U
100-42-5	Styrene	4.4	40	40	U
75-25-2	Bromoform	7.6	40	40	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H020DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737002DL

Matrix: WATER Level: LOW Lab File ID: R031479

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 40.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	26	40	40	U
98-82-8	Isopropylbenzene	9.6	40	40	U
79-34-5	1,1,2,2-Tetrachloroethane	4.0	40	40	U
541-73-1	1,3-Dichlorobenzene	10	40	40	U
106-46-7	1,4-Dichlorobenzene	4.0	40	40	U
95-50-1	1,2-Dichlorobenzene	4.0	40	40	U
96-12-8	1,2-Dibromo-3-chloropropane	27	200	200	U
120-82-1	1,2,4-Trichlorobenzene	3.6	40	40	U
87-61-6	1,2,3-Trichlorobenzene	5.6	40	40	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H021

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737003

Matrix: WATER Level: LOW Lab File ID: R031474

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	4.0	
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	0.40	J
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	10	
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	2.0	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	2.0	
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	47	E
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	34	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	59	E
79-01-6	Trichloroethene	0.24	1.0	100	E
78-87-5	1,2-Dichloropropane	0.12	1.0	0.40	J
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	
127-18-4	Tetrachloroethene	0.26	1.0	1.0	
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H021

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737003

Matrix: WATER Level: LOW Lab File ID: R031474

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H021DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737003DL

Matrix: WATER Level: LOW Lab File ID: R031480

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 8.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	2.1	8.0	8.0	U
74-87-3	Chloromethane	1.6	8.0	8.0	U
75-01-4	Vinyl chloride	2.1	8.0	3.0	DJ
74-83-9	Bromomethane	2.6	8.0	8.0	U
75-00-3	Chloroethane	2.2	8.0	8.0	U
75-69-4	Trichlorofluoromethane	2.3	8.0	8.0	U
75-35-4	1,1-Dichloroethene	2.3	8.0	8.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	2.2	8.0	8.0	U
67-64-1	Acetone	5.0	40	16	DJ
75-15-0	Carbon disulfide	2.0	8.0	8.0	U
75-09-2	Methylene chloride	1.2	16	3.0	DJ
156-60-5	trans-1,2-Dichloroethene	2.2	8.0	8.0	U
1634-04-4	Methyl tert-butylether	1.8	8.0	8.0	U
75-34-3	1,1-Dichloroethane	0.96	8.0	2.0	DJ
156-59-2	cis-1,2-Dichloroethene	1.8	8.0	43	D
78-93-3	2-Butanone	5.7	40	40	U
74-97-5	Bromochloromethane	1.2	8.0	8.0	U
67-66-3	Chloroform	0.88	8.0	34	D
71-55-6	1,1,1-Trichloroethane	1.8	8.0	8.0	U
56-23-5	Carbon tetrachloride	1.7	8.0	8.0	U
71-43-2	Benzene	1.0	8.0	8.0	U
107-06-2	1,2-Dichloroethane	1.9	8.0	55	D
79-01-6	Trichloroethene	1.9	8.0	84	D
78-87-5	1,2-Dichloropropane	0.96	8.0	8.0	U
75-27-4	Bromodichloromethane	0.88	8.0	8.0	U
10061-01-5	cis-1,3-Dichloropropene	1.7	8.0	8.0	U
108-10-1	4-Methyl-2-pentanone	3.8	40	40	U
108-88-3	Toluene	1.8	8.0	8.0	U
10061-02-6	trans-1,3-Dichloropropene	1.6	8.0	8.0	U
79-00-5	1,1,2-Trichloroethane	2.2	8.0	8.0	U
127-18-4	Tetrachloroethene	2.1	8.0	8.0	U
591-78-6	2-Hexanone	2.6	40	40	U
124-48-1	Dibromochloromethane	0.88	8.0	8.0	U
106-93-4	1,2-Dibromoethane	1.5	8.0	8.0	U
108-90-7	Chlorobenzene	0.88	8.0	8.0	U
100-41-4	Ethylbenzene	1.7	8.0	8.0	U
100-42-5	Styrene	0.88	8.0	8.0	U
75-25-2	Bromoform	1.5	8.0	8.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H021DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737003DL

Matrix: WATER Level: LOW Lab File ID: R031480

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 8.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	5.1	8.0	8.0	U
98-82-8	Isopropylbenzene	1.9	8.0	8.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.80	8.0	8.0	U
541-73-1	1,3-Dichlorobenzene	2.1	8.0	8.0	U
106-46-7	1,4-Dichlorobenzene	0.80	8.0	8.0	U
95-50-1	1,2-Dichlorobenzene	0.80	8.0	8.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.4	40	40	U
120-82-1	1,2,4-Trichlorobenzene	0.72	8.0	8.0	U
87-61-6	1,2,3-Trichlorobenzene	1.1	8.0	8.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H022

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737

Matrix: WATER Level: LOW

Sample Volume: 10.0 ML

Lab Sample ID: D9737004

Lab File ID: R031475

Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND (Units: UG/L)	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	0.50	J
75-01-4	Vinyl chloride	0.26	1.0	2.0	
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	2.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	2.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	19	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	21	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	79	E
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	1.0	
107-06-2	1,2-Dichloroethane	0.24	1.0	43	E
79-01-6	Trichloroethene	0.24	1.0	310	E
78-87-5	1,2-Dichloropropane	0.12	1.0	1.0	
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	0.50	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	8.0	
127-18-4	Tetrachloroethene	0.26	1.0	3.0	
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H022

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737004

Matrix: WATER Level: LOW Lab File ID: R031475

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H022DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737004DL

Matrix: WATER Level: LOW Lab File ID: R031481

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 40.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	10	40	40	U
74-87-3	Chloromethane	8.0	40	40	U
75-01-4	Vinyl chloride	10	40	40	U
74-83-9	Bromomethane	13	40	40	U
75-00-3	Chloroethane	11	40	40	U
75-69-4	Trichlorofluoromethane	12	40	40	U
75-35-4	1,1-Dichloroethene	12	40	40	U
76-13-1	1,1,2-Trichlorotrifluoroetha	11	40	40	U
67-64-1	Acetone	25	200	200	U
75-15-0	Carbon disulfide	10	40	40	U
75-09-2	Methylene chloride	6.0	80	25	DJ
156-60-5	trans-1,2-Dichloroethene	11	40	40	U
1634-04-4	Methyl tert-butylether	8.8	40	40	U
75-34-3	1,1-Dichloroethane	4.8	40	40	U
156-59-2	cis-1,2-Dichloroethene	9.2	40	18	DJ
78-93-3	2-Butanone	28	200	200	U
74-97-5	Bromochloromethane	6.0	40	40	U
67-66-3	Chloroform	4.4	40	83	D
71-55-6	1,1,1-Trichloroethane	8.8	40	40	U
56-23-5	Carbon tetrachloride	8.4	40	40	U
71-43-2	Benzene	5.2	40	40	U
107-06-2	1,2-Dichloroethane	9.6	40	42	D
79-01-6	Trichloroethene	9.6	40	820	D
78-87-5	1,2-Dichloropropane	4.8	40	40	U
75-27-4	Bromodichloromethane	4.4	40	40	U
10061-01-5	cis-1,3-Dichloropropene	8.4	40	40	U
108-10-1	4-Methyl-2-pentanone	19	200	200	U
108-88-3	Toluene	9.2	40	40	U
10061-02-6	trans-1,3-Dichloropropene	8.0	40	40	U
79-00-5	1,1,2-Trichloroethane	11	40	40	U
127-18-4	Tetrachloroethene	10	40	40	U
591-78-6	2-Hexanone	13	200	200	U
124-48-1	Dibromochloromethane	4.4	40	40	U
106-93-4	1,2-Dibromoethane	7.6	40	40	U
108-90-7	Chlorobenzene	4.4	40	40	U
100-41-4	Ethylbenzene	8.4	40	40	U
100-42-5	Styrene	4.4	40	40	U
75-25-2	Bromoform	7.6	40	40	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H022DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737004DL

Matrix: WATER Level: LOW Lab File ID: R031481

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 40.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	26	40	40	U
98-82-8	Isopropylbenzene	9.6	40	40	U
79-34-5	1,1,2,2-Tetrachloroethane	4.0	40	40	U
541-73-1	1,3-Dichlorobenzene	10	40	40	U
106-46-7	1,4-Dichlorobenzene	4.0	40	40	U
95-50-1	1,2-Dichlorobenzene	4.0	40	40	U
96-12-8	1,2-Dibromo-3-chloropropane	27	200	200	U
120-82-1	1,2,4-Trichlorobenzene	3.6	40	40	U
87-61-6	1,2,3-Trichlorobenzene	5.6	40	40	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H023

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737005

Matrix: WATER Level: LOW Lab File ID: R031476

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	1.0	U
75-01-4	Vinyl chloride	0.26	1.0	1.0	U
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	1.0	J
75-15-0	Carbon disulfide	0.25	1.0	1.0	U
75-09-2	Methylene chloride	0.15	2.0	0.30	J
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	0.30	J
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	47	E
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	75	E
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	31	
71-43-2	Benzene	0.13	1.0	1.0	U
107-06-2	1,2-Dichloroethane	0.24	1.0	0.60	J
79-01-6	Trichloroethene	0.24	1.0	260	E
78-87-5	1,2-Dichloropropane	0.12	1.0	0.40	J
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	5.0	U
108-88-3	Toluene	0.23	1.0	1.0	U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	
127-18-4	Tetrachloroethene	0.26	1.0	1.0	U
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H023

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737005

Matrix: WATER Level: LOW Lab File ID: R031476

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H023DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737005DL

Matrix: WATER Level: LOW Lab File ID: R031482

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 40.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	10	40	40	U
74-87-3	Chloromethane	8.0	40	40	U
75-01-4	Vinyl chloride	10	40	40	U
74-83-9	Bromomethane	13	40	40	U
75-00-3	Chloroethane	11	40	40	U
75-69-4	Trichlorofluoromethane	12	40	40	U
75-35-4	1,1-Dichloroethene	12	40	40	U
76-13-1	1,1,2-Trichlorotrifluoroetha	11	40	40	U
67-64-1	Acetone	25	200	30	DJ
75-15-0	Carbon disulfide	10	40	40	U
75-09-2	Methylene chloride	6.0	80	80	U
156-60-5	trans-1,2-Dichloroethene	11	40	40	U
1634-04-4	Methyl tert-butylether	8.8	40	40	U
75-34-3	1,1-Dichloroethane	4.8	40	40	U
156-59-2	cis-1,2-Dichloroethene	9.2	40	41	D
78-93-3	2-Butanone	28	200	200	U
74-97-5	Bromochloromethane	6.0	40	40	U
67-66-3	Chloroform	4.4	40	80	D
71-55-6	1,1,1-Trichloroethane	8.8	40	40	U
56-23-5	Carbon tetrachloride	8.4	40	29	DJ
71-43-2	Benzene	5.2	40	40	U
107-06-2	1,2-Dichloroethane	9.6	40	40	U
79-01-6	Trichloroethene	9.6	40	480	D
78-87-5	1,2-Dichloropropane	4.8	40	40	U
75-27-4	Bromodichloromethane	4.4	40	40	U
10061-01-5	cis-1,3-Dichloropropene	8.4	40	40	U
108-10-1	4-Methyl-2-pentanone	19	200	200	U
108-88-3	Toluene	9.2	40	40	U
10061-02-6	trans-1,3-Dichloropropene	8.0	40	40	U
79-00-5	1,1,2-Trichloroethane	11	40	40	U
127-18-4	Tetrachloroethene	10	40	40	U
591-78-6	2-Hexanone	13	200	200	U
124-48-1	Dibromochloromethane	4.4	40	40	U
106-93-4	1,2-Dibromoethane	7.6	40	40	U
108-90-7	Chlorobenzene	4.4	40	40	U
100-41-4	Ethylbenzene	8.4	40	40	U
100-42-5	Styrene	4.4	40	40	U
75-25-2	Bromoform	7.6	40	40	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H023DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737005DL

Matrix: WATER Level: LOW Lab File ID: R031482

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 40.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	26	40	40	U
98-82-8	Isopropylbenzene	9.6	40	40	U
79-34-5	1,1,2,2-Tetrachloroethane	4.0	40	40	U
541-73-1	1,3-Dichlorobenzene	10	40	40	U
106-46-7	1,4-Dichlorobenzene	4.0	40	40	U
95-50-1	1,2-Dichlorobenzene	4.0	40	40	U
96-12-8	1,2-Dibromo-3-chloropropane	27	200	200	U
120-82-1	1,2,4-Trichlorobenzene	3.6	40	40	U
87-61-6	1,2,3-Trichlorobenzene	5.6	40	40	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H024

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737006

Matrix: WATER Level: LOW Lab File ID: R031477

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
75-71-8	Dichlorodifluoromethane	0.26	1.0	1.0	U
74-87-3	Chloromethane	0.20	1.0	0.50	J
75-01-4	Vinyl chloride	0.26	1.0	0.80	J
74-83-9	Bromomethane	0.32	1.0	1.0	U
75-00-3	Chloroethane	0.28	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.29	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.29	1.0	2.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	0.27	1.0	1.0	U
67-64-1	Acetone	0.62	5.0	3.0	J
75-15-0	Carbon disulfide	0.25	1.0	0.30	J
75-09-2	Methylene chloride	0.15	2.0	16	
156-60-5	trans-1,2-Dichloroethene	0.28	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.22	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.12	1.0	0.50	J
156-59-2	cis-1,2-Dichloroethene	0.23	1.0	15	
78-93-3	2-Butanone	0.71	5.0	5.0	U
74-97-5	Bromochloromethane	0.15	1.0	1.0	U
67-66-3	Chloroform	0.11	1.0	11	
71-55-6	1,1,1-Trichloroethane	0.22	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.21	1.0	1.0	U
71-43-2	Benzene	0.13	1.0	0.70	J
107-06-2	1,2-Dichloroethane	0.24	1.0	50	E
79-01-6	Trichloroethene	0.24	1.0	370	E
78-87-5	1,2-Dichloropropane	0.12	1.0	0.70	J
75-27-4	Bromodichloromethane	0.11	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.21	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.47	5.0	0.50	J
108-88-3	Toluene	0.23	1.0	0.60	J
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	17	
127-18-4	Tetrachloroethene	0.26	1.0	0.50	J
591-78-6	2-Hexanone	0.33	5.0	5.0	U
124-48-1	Dibromochloromethane	0.11	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.19	1.0	1.0	U
108-90-7	Chlorobenzene	0.11	1.0	1.0	U
100-41-4	Ethylbenzene	0.21	1.0	1.0	U
100-42-5	Styrene	0.11	1.0	1.0	U
75-25-2	Bromoform	0.19	1.0	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H024

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737006

Matrix: WATER Level: LOW Lab File ID: R031477

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 03/28/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
1330-20-7	Xylene (total)	0.64	1.0	1.0	U
98-82-8	Isopropylbenzene	0.24	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.10	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.26	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.10	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.10	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.68	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.090	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H024DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737006DL

Matrix: WATER Level: LOW Lab File ID: J031008

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 04/02/03

Dilution Factor: 50.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
107-06-2	1,2-Dichloroethane	12	50	43	DJ
78-87-5	1,2-Dichloropropane	9.5	50	50	U
79-01-6	Trichloroethene	9.0	50	850	D
87-61-6	1,2,3-Trichlorobenzene	7.0	50	50	U
75-71-8	Dichlorodifluoromethane	12	50	50	U
74-87-3	Chloromethane	16	50	50	U
75-01-4	Vinyl chloride	18	50	50	U
74-83-9	Bromomethane	20	50	50	U
75-00-3	Chloroethane	18	50	50	U
75-69-4	Trichlorofluoromethane	11	50	50	U
75-35-4	1,1-Dichloroethene	16	50	50	U
76-13-1	1,1,2-Trichlorotrifluoroetha	19	50	50	U
67-64-1	Acetone	39	250	250	U
75-15-0	Carbon disulfide	21	50	50	U
75-09-2	Methylene chloride	4.5	100	12	DJ
156-60-5	trans-1,2-Dichloroethene	14	50	50	U
1634-04-4	Methyl tert-butylether	15	50	50	U
75-34-3	1,1-Dichloroethane	9.0	50	50	U
156-59-2	cis-1,2-Dichloroethene	10	50	50	U
78-93-3	2-Butanone	50	250	250	U
74-97-5	Bromochloromethane	9.0	50	50	U
67-66-3	Chloroform	6.0	50	13	DJ
71-55-6	1,1,1-Trichloroethane	9.5	50	50	U
56-23-5	Carbon tetrachloride	6.5	50	50	U
71-43-2	Benzene	3.5	50	50	U
96-12-8	1,2-Dibromo-3-chloropropane	41	250	250	U
120-82-1	1,2,4-Trichlorobenzene	8.5	50	50	U
75-27-4	Bromodichloromethane	6.0	50	50	U
10061-01-5	cis-1,3-Dichloropropene	7.0	50	50	U
108-10-1	4-Methyl-2-pentanone	23	250	250	U
108-88-3	Toluene	5.5	50	50	U
10061-02-6	trans-1,3-Dichloropropene	12	50	50	U
79-00-5	1,1,2-Trichloroethane	14	50	50	U
127-18-4	Tetrachloroethene	7.5	50	50	U
591-78-6	2-Hexanone	34	250	250	U
124-48-1	Dibromochloromethane	12	50	50	U
106-93-4	1,2-Dibromoethane	14	50	50	U
108-90-7	Chlorobenzene	6.0	50	50	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H024DL

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737006DL

Matrix: WATER Level: LOW Lab File ID: J031008

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 04/02/03

Dilution Factor: 50.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
100-41-4	Ethylbenzene	6.0	50	50	U
98-82-8	Isopropylbenzene	6.0	50	50	U
100-42-5	Styrene	6.5	50	50	U
75-25-2	Bromoform	14	50	50	U
1330-20-7	Xylene (total)	6.5	50	50	U
106-46-7	1,4-Dichlorobenzene	6.5	50	50	U
79-34-5	1,1,2,2-Tetrachloroethane	8.0	50	50	U
541-73-1	1,3-Dichlorobenzene	5.5	50	50	U
95-50-1	1,2-Dichlorobenzene	3.0	50	50	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H025

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737 Lab Sample ID: D9737007

Matrix: WATER Level: LOW Lab File ID: J031007

Sample Volume: 10.0 ML Date Received: 03/22/03

Date Analyzed: 04/02/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
107-06-2	1,2-Dichloroethane	0.25	1.0	1.0	U
78-87-5	1,2-Dichloropropane	0.19	1.0	1.0	U
79-01-6	Trichloroethene	0.18	1.0	1.0	U
87-61-6	1,2,3-Trichlorobenzene	0.14	1.0	1.0	U
75-71-8	Dichlorodifluoromethane	0.24	1.0	1.0	U
74-87-3	Chloromethane	0.32	1.0	1.0	U
75-01-4	Vinyl chloride	0.36	1.0	1.0	U
74-83-9	Bromomethane	0.40	1.0	1.0	U
75-00-3	Chloroethane	0.35	1.0	1.0	U
75-69-4	Trichlorofluoromethane	0.22	1.0	1.0	U
75-35-4	1,1-Dichloroethene	0.32	1.0	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroetha	0.39	1.0	1.0	U
67-64-1	Acetone	0.78	5.0	2.0	J
75-15-0	Carbon disulfide	0.42	1.0	1.0	U
75-09-2	Methylene chloride	0.090	2.0	2.0	U
156-60-5	trans-1,2-Dichloroethene	0.27	1.0	1.0	U
1634-04-4	Methyl tert-butylether	0.30	1.0	1.0	U
75-34-3	1,1-Dichloroethane	0.18	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	0.21	1.0	1.0	U
78-93-3	2-Butanone	1.0	5.0	5.0	U
74-97-5	Bromochloromethane	0.18	1.0	1.0	U
67-66-3	Chloroform	0.12	1.0	0.20	J
71-55-6	1,1,1-Trichloroethane	0.19	1.0	1.0	U
56-23-5	Carbon tetrachloride	0.13	1.0	1.0	U
71-43-2	Benzene	0.070	1.0	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	0.82	5.0	5.0	U
120-82-1	1,2,4-Trichlorobenzene	0.17	1.0	1.0	U
75-27-4	Bromodichloromethane	0.12	1.0	1.0	U
10061-01-5	cis-1,3-Dichloropropene	0.14	1.0	1.0	U
108-10-1	4-Methyl-2-pentanone	0.46	5.0	5.0	U
108-88-3	Toluene	0.11	1.0	0.40	J
10061-02-6	trans-1,3-Dichloropropene	0.24	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	0.28	1.0	1.0	U
127-18-4	Tetrachloroethene	0.15	1.0	1.0	U
591-78-6	2-Hexanone	0.67	5.0	5.0	U
124-48-1	Dibromochloromethane	0.25	1.0	1.0	U
106-93-4	1,2-Dibromoethane	0.27	1.0	1.0	U
108-90-7	Chlorobenzene	0.12	1.0	1.0	U

FORM I VOA SW846

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

0312H025

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D9737 SDG No.: D9737

Matrix: WATER Level: LOW

Sample Volume: 10.0 ML

Lab Sample ID: D9737007

Lab File ID: J031007

Date Received: 03/22/03

Date Analyzed: 04/02/03

Dilution Factor: 1.0

CAS NO.	COMPOUND Units: UG/L	MDL	RL	RESULT	Q
100-41-4	Ethylbenzene	0.12	1.0	1.0	U
98-82-8	Isopropylbenzene	0.12	1.0	1.0	U
100-42-5	Styrene	0.13	1.0	1.0	U
75-25-2	Bromoform	0.27	1.0	1.0	U
1330-20-7	Xylene (total)	0.13	1.0	1.0	U
106-46-7	1,4-Dichlorobenzene	0.13	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.16	1.0	1.0	U
541-73-1	1,3-Dichlorobenzene	0.11	1.0	1.0	U
95-50-1	1,2-Dichlorobenzene	0.060	1.0	1.0	U

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H020

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737002

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.6	B		F
7439-89-6	Iron	7.7	B		P
7439-96-5	Manganese	51.4			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H021

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737003

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.0	U		F
7439-89-6	Iron	189			P
7439-96-5	Manganese	680			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H022

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9737

atrix (soil/water): WATER Lab Sample ID: D9737004

evel (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.0	U		F
7439-89-6	Iron	97.6	B		P
7439-96-5	Manganese	981			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H023

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737005

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	6.4	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H024

ontract: TTEMI/HUNTER'S PT

ab Code: RDD Case No.: SAS No.: SDG NO.: D9737

atrix (soil/water): WATER Lab Sample ID: D9737006

evel (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	154			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H025

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737007

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.0	U		F
7439-96-5	Manganese	1.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H020T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737008

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	185			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H021T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737009

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	474			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Columbia Analytical Services, Inc.

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H022T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737010

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	398			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H023T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737011

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	238			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
0312H024T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737012

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	464			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

0312H025T

Contract: TTEMI/HUNTER'S PT

Lab Code: RDD Case No.: SAS No.: SDG NO.: D9737

Matrix (soil/water): WATER Lab Sample ID: D9737013

Level (low/med): LOW Date Received: 3/22/03

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	4.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

Report of Analytical Results

Client Sample ID: 0312H020
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/21/03 10:25 (Fri)
Date Received: 03/22/03 10:30 (Sat)

Reference No: D9737
Lab Sample ID: D9737002

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	85	mg/L	10	03/31/03 14:00	EPA310.1
ANIONS					
Chloride	80.8	mg/L	10	03/22/03 15:39	EPA300.0
NUTRIENTS					
Nitrate as N	1.88	mg/L	0.10	03/22/03 12:25	EPA300.0

(19740)

Report of Analytical Results

Client Sample ID: 0312H021
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/21/03 10:30 (Fri)
Date Received: 03/22/03 10:30 (Sat)

Reference No: D9737
Lab Sample ID: D9737003

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	98	mg/L	10	03/31/03 14:00	EPA310.1
ANIONS					
Chloride	112	mg/L	10	03/22/03 13:18	EPA300.0

(19740)

Report of Analytical Results

Client Sample ID: 0312H022
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/21/03 11:15 (Fri)
Date Received: 03/22/03 10:30 (Sat)

Reference No: D9737
Lab Sample ID: D9737004

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	70	mg/L	10	03/31/03 14:00	EPA310.1
ANIONS					
Chloride	152	mg/L	10	03/22/03 13:36	EPA300.0

(19740)

Report of Analytical Results

Client Sample ID: 0312H023
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/21/03 12:00 (Fri)
Date Received: 03/22/03 10:30 (Sat)

Reference No: D9737
Lab Sample ID: D9737005

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	104	mg/L	10	03/31/03 14:00	EPA310.1
ANIONS					
Chloride	236	mg/L	20	03/22/03 17:43	EPA300.0

(19740)

Report of Analytical Results

Client Sample ID: 0312H024
Sample Description: None
Sample Matrix: Water
Site: N/A

Date Collected: 03/21/03 12:15 (Fri)
Date Received: 03/22/03 10:30 (Sat)

Reference No: D9737
Lab Sample ID: D9737006

CATEGORY NAME Analytical Parameter	Result	Units	Reporting Level	Date/Time of Analysis	Analytical Method(s)
GENERAL					
Alkalinity as CaCO3	28	mg/L	10	03/31/03 14:00	EPA310.1
ANIONS					
Chloride	202	mg/L	20	03/22/03 18:00	EPA300.0

(19740)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

ient: **Tetra Tech**
ent Project ID: **Hunter's Point**

CAS Project ID: P2300554

Hydrogen

st Code: RSK 175
rument ID: HP5890A/TCD #8
alyst: Wade Henton/Regan Lau
mpling Media: Liquid
t Notes:

Date(s) Collected: 3/21/03
Date Received: 3/25/03
Date(s) Analyzed: 3/27/03
Volume(s) Analyzed: 0.10 ml

Client Sample ID	CAS Sample ID	D.F.	Hydrogen µg/L Result	MRL	MDL	Data Qualifier
312H020	P2300554-001	1.00	ND	17.0	5.00	
312H021	P2300554-002	1.00	ND	17.0	5.00	
312H022	P2300554-003	1.00	ND	17.0	5.00	
H023	P2300554-004	1.00	ND	17.0	5.00	
312H024	P2300554-005	1.00	ND	17.0	5.00	
Method Control Sample	P030327-MB	1.00	ND	17.0	5.00	

he Method Control Sample is laboratory water carried through the entire analytical process.
D = Compound was analyzed for, but not detected above the **laboratory detection limit**.
RL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/7/03

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

:lient: **Tetra Tech**
'lient Sample ID: **0312H020**
'lient Project ID: **Hunter's Point**

CAS Project ID: P2300554
CAS Sample ID: P2300554-001

:est Code: RSK 175
.strument ID: HP5890A/FID #10
nalyst: Wade Henton/Regan Lau
umpling Media: Liquid
:st Notes:

Date Collected: 3/21/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml(s)

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
74-84-0	Ethane	4.0	0.50	0.30	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/7/03

00554SVG.RDI- Sample

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

ient: **Tetra Tech**
ient Sample ID: **0312H021**
lient Project ID: **Hunter's Point**

CAS Project ID: P2300554
CAS Sample ID: P2300554-002

est Code: RSK 175
strument ID: HP5890A/FID #10
alyst: Wade Henton/Regan Lau
mpling Media: Liquid
est Notes:

Date Collected: 3/21/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	49	1.5	0.40	
74-84-0	Ethane	89	0.50	0.30	

= Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/7/03

00554SVG.RDt- Sample (2)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

:lient: Tetra Tech
:lient Sample ID: 0312H022
:lient Project ID: Hunter's Point

CAS Project ID: P2300554
CAS Sample ID: P2300554-003

est Code: RSK 175
ıstrument ID: HP5890A/FID #10
nalyst: Wade Henton/Regan Lau
ımpling Media: Liquid
:st Notes:

Date Collected: 3/21/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	44	1.5	0.40	
74-84-0	Ethane	74	0.50	0.30	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/7/03

00554SVG.RD1- Sample (3)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

ient: **Tetra Tech**
ient Sample ID: **0312H022**
lient Project ID: **Hunter's Point**

CAS Project ID: P2300554
CAS Sample ID: P2300554-003DUP

est Code: RSK 175
istrument ID: HP5890A/FID #10
alyst: Wade Henton/Regan Lau
mpling Media: Liquid
est Notes:

Date Collected: 3/21/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	45	1.5	0.40	
74-84-0	Ethane	77	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/7/03

00554SVG.RD1- Dup (3)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

:lient: **Tetra Tech**
:lient Sample ID: **0312H023**
:lient Project ID: **Hunter's Point**

CAS Project ID: P2300554
CAS Sample ID: P2300554-004

est Code: RSK 175
ıstrument ID: HP5890A/FID #10
nalyst: Wade Henton/Regan Lau
ampling Media: Liquid
est Notes:

Date Collected: 3/21/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	ND	1.5	0.40	
74-84-0	Ethane	ND	0.50	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/7/03

00554SVO.RD1 - Sample (4)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

ient: Tetra Tech
ient Sample ID: 0312H024
lient Project ID: Hunter's Point

CAS Project ID: P2300554
CAS Sample ID: P2300554-005

est Code: RSK 175
strument ID: HP5890A/FID #10
alyst: Wade Henton/Regan Lau
ampling Media: Liquid
est Notes:

Date Collected: 3/21/03
Date Received: 3/25/03
Date Analyzed: 3/28/03
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result µg/L	MRL µg/L	Detection Limit µg/L	Data Qualifier
74-85-1	Ethene	52	1.5	0.40	
74-84-0	Ethane	77	0.50	0.30	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 4/7/03

00554SVG.RD1- Sample (5)

ENCLOSURE 5
DATA VALIDATION REPORTS

Tetra Tech EM Inc.
DATA VALIDATION REPORT
(TRd by Deb Kutsal/TtEMI/05/06/03)

Site:	Hunters Point Shipyard
Project Name:	DO-013
Laboratory:	Columbia Analytical Services - Redding
Data Reviewer:	Sandra Obleas, The DV Group
Review Date:	April 30, 2003

Sample Delivery Group (SDG) No.: D9718

Sample Nos.:		
	0312H001	0312H010Z
	0312H002 *	0312H011
	0312H003	0312H012
	0312H004	0312H013
	0312H005	0312H014 *
	0312H006	0312H015
	0312H007 *	0312H016
	0312H008	0312H017
	0312H009	0312H018
	0312H010	

* Full Validation Sample

Matrix: Water

Collection Date(s): March 18 and 19, 2003

The data were qualified according to the U.S. Environmental Protection Agency (EPA) documents "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (October 1999), "USEPA Contract Laboratory National Functional Guidelines for Low Concentration Organic Data" (EPA 2001), and "USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review" (February 1994). In addition, the TtEMI documents "Data Validation Guidelines for CLP Organic Analyses," "Data Validation Guidelines for CLP Inorganic Analyses," "Data Validation Guidelines for Non-CLP Organic Analyses," "Data Validation Guidelines for Non-CLP Inorganic and Physical Analyses" (August 2001), and the document entitled "TtEMI Comprehensive Long-term Environmental Action Navy II Analytical Services Statement of Work" (May 2000) were used along with other specified criteria in EPA methods. Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

_____

Certified by

DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. An asterisk (*) indicates cursory validation parameters.

CLP Organic Parameters

*	Holding times
	GC/MS instrument performance check
*	Initial and continuing calibrations
*	Blanks
*	Surrogate recovery
*	Matrix spike/matrix spike duplicate
*	Laboratory control sample or blank spike
*	Field duplicates
*	Internal standard performance
	Target compound identification
	Tentatively identified compounds
	Compound quantitation
	Reported detection limits
	System performance
*	Overall assessment of data for the SDG

CLP Inorganic Parameters

*	Holding times
*	Initial and continuing calibrations
*	Blanks
*	Matrix spike
*	Laboratory control sample or blank spike
*	Field duplicates
*	Matrix duplicates
	ICP interference check sample
	GFAA quality control
*	ICP serial dilution
	Sample result verification
	Analyte quantitation
	Reported detection limits
*	Overall assessment of data for the SDG

Non-CLP Organic and Inorganic Parameters

*	Method compliance
*	Holding times
*	Initial and continuing calibrations
*	Blanks
*	Matrix spike/matrix spike duplicate
*	Laboratory control sample or blank spike
*	Field duplicates
*	Matrix duplicates
*	Surrogate recovery
	Analyte quantitation
	Reported detection limits
*	Overall assessment of data for the SDG

DATA VALIDATION QUALIFIERS AND CODES

Data Validation Qualifiers

UJ	Estimated nondetected result
J	Estimated detected result
R	Rejected result
NJ	Tentatively Identified Compound (TIC)

Data Validation Qualifier Codes

U1, U2, U4	Laboratory method blank, Field blank, Common blank contamination
J1, UJ1, R3	Noncompliance with instrument performance criteria
J2, UJ2	Duplicate precision exceedance
J3, UJ3, R2	Surrogate, Matrix spike, Laboratory control sample (LCS) exceedance
J4, UJ4	Serial Dilution
J5, UJ5, R1	Holding time exceedance
J7, UJ7, R7	Calibration exceedance
J8	Compound above calibration range
J9, UJ9	ICP Interference check sample; Compound identification
J0, UJ0, R0	Internal standard exceedance
J	Quantification below reporting limit

TABLE 1
CURSORY DATA VALIDATION SUMMARY

Analysis	Holding Times	Surrogates	MS/MSD	Matrix Duplicates	LCS	Blanks	Calibrations	Internal Standards	Field Duplicates	Other
VOA 8260	√	√	√	N/A	√	pg. 6	pg. 7	√	pg. 7	pg. 7, 8
Metals	√	N/A	pg. 10	N/A	√	pg. 10	√	N/A	pg. 10	pg. 11

Notes:
√ indicates that all quality control criteria were met for the parameter as specified in the prescribed methods and data validation guidelines.
N/A indicates the parameter is not applicable to an analysis.
If criteria were not met and the data were qualified, a page number is indicated where the qualification is detailed.
The data were evaluated for all validation criteria and were found to be in control except where noted. Any outliers are described in the text.

TABLE 2
FULL DATA VALIDATION SUMMARY
Samples 0312H002, 0312H007, 0312H014

Analysis	GC/MS Tuning	Target Compound List Identification	Compound or Analyte Quantification	Reported Detection Limits	Tentatively Identified Compounds	System Performance	Interference Check Sample	Graphite Furnace Quality Control
VOA 8260	√	√	√	√	N/A	√	N/A	N/A
Metals	N/A	N/A	√	√	N/A	√	√	N/A

Notes:

√ indicates that all quality control criteria were met for the parameter as specified in the prescribed methods and data validation guidelines.
N/A indicates the parameter is not applicable to an analysis.
If criteria were not met and the data were qualified, a page number is indicated where the qualification is detailed.
The data were evaluated for all validation criteria and were found to be in control except where noted. Any outliers found are described below.

DATA ASSESSMENT

VOLATILES (8260) ANALYSIS

I. Blank Contamination

A. Due to common laboratory contamination, the following results are considered nondetected (U4).

- Methylene chloride in samples 0312H001, 0312H003, 0312H004, 0312H006, 0312H007, 0312H008, 0312H009, 0312H010Z, 0312H012, 0312H014, 0312H015, 0312H016, 0312H018, 0312H007DL, 0312H008DL, 0312H012DL, 0312H016DL, and 0312H017DL.
- Acetone in all samples.

Methylene chloride and Acetone are considered common laboratory contaminants when found at levels less than 5x the CRQL in environmental samples and not found in the associated blanks.

B. Due to method blank contamination, the following results are considered nondetected (U1).

- Chloroform in samples 0312H001, 0312H009, 0312H014, 0312H015, 0312H018, .

The following compounds were detected in the associated method blanks at the concentrations noted below.

Compound	Blank ID	Concentration, µg/L
Chloroform	Method blank 3/28/03	0.2

Detected results less than 5x the blank contamination were qualified.

C. Due to field, trip, and equipment rinsate blank contamination, the following results are considered nondetected (U2).

- 2-Butanone in samples 0312H001, 0312H002, 0312H005, 0312H007, 0312H009, 0312H010Z, 0312H011, 0312H013, 0312H014, and 0312H015, 0312H018.
- Toluene in samples 0312H001, 0312H003, 0312H006, 0312H007, 0312H008, 0312H009, 0312H010Z, 0312H014, 0312H015, 0312H016, and 0312H017 0312H018.
- Chloroform in samples 0312H005, 0312H008DL, 0312H013, and 0312H016DL.

The following compounds were detected in the associated field, trip, and equipment rinsate blanks at the concentrations noted below.

Compound	Blank ID	Concentration, µg/L
2-Butanone	0312H001 (trip blank)	1.0
Toluene	0312H001 (trip blank)	2.0
Chloroform	0312H009 (equipment rinsate)	0.3

Detected results less than 5x the maximum blank contamination were qualified.

II. Calibrations

A. Due to severe calibration problems, the following detected results are qualified as estimated (J7).

- Acetone in all samples.

The following relative response factor (RRF) did not meet the QC limit of >0.05.

Calibration Date	Compound	RRF
3/25/03 0957 Init. Cal.	Acetone	0.032

III. Field Duplicate

A. The following RPDs were obtained for the field duplicate samples:

- 0312H002 / 0312H003: 200% for 1,2-Dichloroethane.
- 0312H014 / 0312H015: 200% for Carbon disulfide and Chloromethane.

For water samples, the field RPD guideline is ± 25%. The data are not qualified on the basis of field duplicate results.

IV. Other Qualifications

A. The following results are qualified as estimated (J).

- 2-Butanone detected result was reported below the contract required report limit (RL) for sample 0312H001.
- 1,1,2-Trichlorotrifluoroethane, 1,2-Dichloroethane, and Trichlorofluoromethane detected results were reported below the contract required report limit (RL) for sample 0312H002.
- 1,1,2-Trichlorotrifluoroethane and Trichlorofluoromethane detected results were reported below the contract required report limit (RL) for sample 0312H003.
- 1,2-Dichloroethane, 1,4-Dichlorobenzene, 2-Hexanone, and Tetrachloroethene detected results were reported below the contract required report limit (RL) for sample 0312H004.
- 1,2- Dichloroethane detected result was reported below the contract required report limit (RL) for sample 0312H004DL.
- Chloromethane detected result was reported below the contract required report limit (RL) for sample 0312H005.
- 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloropropane, 2-Hexanone, Chloromethane, and Vinyl chloride detected results were reported below the contract required report limit (RL) for sample 0312H008.
- 1,2- Dichloroethane and cis-1,2-Dichloroethene detected results were reported below the contract required report limit (RL) for sample 0312H008DL.
- 2-Butanone, Bromochloromethane, and Toluene detected result was reported below the contract required report limit (RL) for sample 0312H009.
- Chloromethane detected result was reported below the contract required report limit (RL) for sample 0312H010.
- Chloromethane and cis-1,2-Dichloroethene detected results were reported below the contract required report limit (RL) for sample 0312H010Z.
- Trichloroethene detected result was reported below the contract required report limit (RL) for sample 0312H011.

- 1,1-Dichloroethene detected result was reported below the contract required report limit (RL) for sample 0312H012.
- 1,2-Dichloroethane and cis-1,2-Dichloroethene detected results were reported below the contract required report limit (RL) for sample 0312H012DL.
- 1,1-Dichloroethane, 1,2-Dichloropropane, Chloromethane, and cis-1,2-Dichloroethene detected results were reported below the contract required report limit (RL) for sample 0312H013.
- 1,1,2-Trichloroethane, Chloromethane, and cis-1,2-Dichloroethene detected results were reported below the contract required report limit (RL) for sample 0312H014.
- 1,1,2-Trichloroethane, Carbon disulfide, and cis-1,2-Dichloroethene detected results were reported below the contract required report limit (RL) for sample 0312H015.
- cis-1,2-Dichloroethene detected result was reported below the contract required report limit (RL) for sample 0312H016DL.
- cis-1,2-Dichloroethene detected result was reported below the contract required report limit (RL) for sample 0312H017DL.
- 2-Butanone and Bromochloromethane detected results were reported below the contract required report limit (RL) for sample 0312H018.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

B. The following result was qualified as estimated (J8) due to exceed calibration range.

- Trichloroethene for samples 0312H004, 0312H007, 0312H008, 0312H010, 0312H012, 0312H016, and 0312H017.

Full Validation Criteria for Samples 0312H001, 0312H007, 0312H014

V. GC/MS Tuning

A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS performance check. The samples were analyzed within 12 hours of the associated performance check.

VI. Target Compound List (TCL) Identification

A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

VII. Compound Quantitation and Reported Detection Limits

A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were correctly quantitated. The reported detection limits were consistent with the contract required report limits and reflect any dilutions, weights, volumes, and percent moisture.

VIII. Tentatively Identified Compounds (TICs)

A. TICs not performed.

IX. System Performance

A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

CLP METALS ANALYSIS

I. Blank Contamination

A. Due to calibration and method blank contamination, the following results are considered nondetected (U1).

- Dissolved Arsenic for samples 0312H004, 0312H006, 0312H007, 0312H011, and 0312H015.
- Dissolved Iron for samples 0312H002, 0312H003, 0312H005, 0312H006, 0312H007, 0312H010, 0312H011, 0312H012, and 0312H017.

The following metals were detected in the associated calibration and method blanks at the concentrations noted below.

Analyte	Blank ID	Concentration, ug/L
Dissolved Arsenic	CCB1	1.1
Dissolved Iron	CCB3	11.5

Detected results less than 5x the maximum blank contamination were qualified.

II. Matrix Spike (MS)

A. Due to accuracy problems in the MS analysis, the following detected results are qualified as estimated (J3).

- Dissolved Arsenic for samples 0312H004, 0312H005, 0312H006, 0312H007, 0312H011, and 0312H015.

The recoveries outside the QC limits are listed below.

Sample ID	Analyte	%R	QC Limits
0312H004	Dissolved Arsenic	125.8	75 - 125%

Spike recoveries above 125% indicate that detected results may be biased high.

III. Field Duplicate

A. The following RPDs were obtained for the field duplicate samples:

- 0312H002 / 0312H003: 76% for Dissolved Iron; 27% for Total Iron.
- 0312H014 / 0312H015: 200% for Dissolved Arsenic, 67% for Dissolved Iron; and 50% for Dissolved Manganese.

For water samples, the field RPD guideline is $\pm$ 25%. The data are not qualified on the basis of field duplicate results.

IV. Other Qualifications

A. The following results are qualified as estimated (J).

- Dissolved Iron detected results were reported above the IDL but below the CRDL for samples 0312H004, 0312H008, 0312H010Z, 0312H013, and 0312H016.
- Dissolved Manganese detected results were reported above the IDL but below the CRDL for samples 0312H005 and 0312H011.
- Total Iron detected results were reported above the IDL but below the CRDL for samples 0312H002, 0312H003, 0312H005, 0312H006, 0312H009, and 0312H017.

Results above the IDL but below the CRDL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

- Dissolved iron detected result in 0312H004 was above calibration range.

Full Validation Criteria for Samples 0312H001, 0312H007, 0312H014

V. Analyte Quantitation and Reported Detection Limits

A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with the contract required report limits and reflect any dilutions, weights, volumes, and percent moisture.

VI. Graphite Furnace Atomic Absorption (GFAA) Analysis

A. GFAA was not performed.

VII. ICP Interference Check Sample

A. ICSAB percent recoveries were acceptable and spectral interference was not found.

OVERALL ASSESSMENT OF DATA

I. Method Compliance and Additional Comments

A. All analyses were conducted within all specifications of the requested methods.

II. Usability

A. Due to common laboratory contamination in the Volatile analyses, the following were considered nondetected: Methylene chloride for eighteen samples; and Acetone for twenty-six samples. Due to method blank contamination, Chloroform was considered nondetected for foursamples. Due to equipment rinsate contamination, the following were considered nondetected: 2-Butanone for elevensamples; Toluene for twelvesamples; and Chloroform for five samples. Due to severe calibration problems, the following were qualified as estimated: Acetone for twenty-six samples. Due to uncertainty in the analytical precision near the limit of detection, the following were qualified as estimated: 2-Butanone for three samples; 1,1,2-Trichlorotrifluoroethane for two samples; 1,2-Dichloroethane for five samples; Trichlorofluoromethane for two samples; 1,4-Dichlorobenzene and Tetrachloroethene for one sample; 2-Hexanone for two samples; Chloromethane for six samples; 1,1-Dichloroethane for two samples; 1,1-Dichloroethene for two samples; 1,2-Dichloropropane for two samples; Vinyl chloride for one samples; cis-1,2-Dichloroethene for eight samples; Bromochloromethane for two samples; Toluene for one sample; Trichloroethene for one sample; 1,1,2-Trichloroethane for two samples; and Carbon disulfide for one sample. The following exceeded the calibration range: Trichloroethene for seven samples.

B. Volatile samples 0312H004, 0312H007, 0312H008, 0312H010, 0312H012, 0312H016, and 0312H017 were reanalyzed at a dilution due to Trichloroethene results exceeding the calibration range. The diluted results should be used as the final validated results as follows: Trichloroethene for samples 0312H004DL, 0312H007DL, 0312H008DL, 0312H010DL, 0312H012DL, 0312H016DL, and 0312H017DL. Original and diluted results agree for all samples.

C. Due to calibration and method blank contamination in the Metals analyses, the following were considered nondetected: Dissolved Arsenic for five samples; Dissolved Iron for nine samples. Due to matrix spike problems, Dissolved Arsenic was qualified as estimated for six samples. Due to uncertainty in the analytical precision near the limit of detection, the following were qualified as estimated: Dissolved Iron for five samples, Dissolved Manganese for two samples; and Total Iron for six samples. Due to result above calibration range, dissolved iron in one sample was qualified as estimated.

D. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation all other results are considered valid and usable for all purposes. In general, the absence of rejected data and the small number of qualifiers added to the data indicate high usability.

Tetra Tech EM Inc.
DATA VALIDATION REPORT
(Trd by Deb Kutsal/TtEMI/05/06/03)

Site:	Hunters Point Shipyard
Project Name:	DO-013
Laboratory:	Columbia Analytical Services - Redding
Data Reviewer:	Sandra Obleas, The DV Group
Review Date:	May 1, 2003

Sample Delivery Group (SDG) No.: D9737

Sample Nos.:	0312H019	0312H023
	0312H020	0312H024
	0312H021 *	0312H025
	0312H022	

* Full Validation Sample

Matrix: Water

Collection Date(s): March 21, 2003

The data were qualified according to the U.S. Environmental Protection Agency (EPA) documents "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (October 1999), "USEPA Contract Laboratory National Functional Guidelines for Low Concentration Organic Data" (EPA 2001), and "USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review" (February 1994). In addition, the TtEMI documents "Data Validation Guidelines for CLP Organic Analyses," "Data Validation Guidelines for CLP Inorganic Analyses," "Data Validation Guidelines for Non-CLP Organic Analyses," "Data Validation Guidelines for Non-CLP Inorganic and Physical Analyses" (August 2001), and the document entitled "TtEMI Comprehensive Long-term Environmental Action Navy II Analytical Services Statement of Work" (May 2000) were used along with other specified criteria in EPA methods. Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

_____
Certified by

DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. An asterisk (*) indicates cursory validation parameters.

CLP Organic Parameters

*	Holding times
	GC/MS instrument performance check
*	Initial and continuing calibrations
*	Blanks
*	Surrogate recovery
*	Matrix spike/matrix spike duplicate
*	Laboratory control sample or blank spike
*	Field duplicates
*	Internal standard performance
	Target compound identification
	Tentatively identified compounds
	Compound quantitation
	Reported detection limits
	System performance
*	Overall assessment of data for the SDG

CLP Inorganic Parameters

*	Holding times
*	Initial and continuing calibrations
*	Blanks
*	Matrix spike
*	Laboratory control sample or blank spike
*	Field duplicates
*	Matrix duplicates
	ICP interference check sample
	GFAA quality control
*	ICP serial dilution
	Sample result verification
	Analyte quantitation
	Reported detection limits
*	Overall assessment of data for the SDG

Non-CLP Organic and Inorganic Parameters

*	Method compliance
*	Holding times
*	Initial and continuing calibrations
*	Blanks
*	Matrix spike/matrix spike duplicate
*	Laboratory control sample or blank spike
*	Field duplicates
*	Matrix duplicates
*	Surrogate recovery
	Analyte quantitation
	Reported detection limits
*	Overall assessment of data for the SDG

DATA VALIDATION QUALIFIERS AND CODES

Data Validation Qualifiers

UJ Estimated nondetected result

J Estimated detected result

R Rejected result

NJ Tentatively Identified Compound (TIC)

Data Validation Qualifier Codes

U1, U2, U4	Laboratory method blank, Field blank, Common blank contamination
J1, UJ1, R3	Noncompliance with instrument performance criteria
J2, UJ2	Duplicate precision exceedance
J3, UJ3, R2	Surrogate, Matrix spike, Laboratory control sample (LCS) exceedance
J4, UJ4	Serial Dilution
J5, UJ5, R1	Holding time exceedance
J7, UJ7, R7	Calibration exceedance
J8	Compound above calibration range
J9, UJ9	ICP Interference check sample; Compound identification
J0, UJ0, R0	Internal standard exceedance
J	Quantification below reporting limit

TABLE 1
CURSORY DATA VALIDATION SUMMARY

Analysis	Holding Times	Surrogates	MS/MSD	Matrix Duplicates	LCS	Blanks	Calibrations	Internal Standards	Field Duplicates	Other
VOA 8260	√	√	N/A	N/A	√	pg. 6	pg. 6, 7	√	N/A	pg. 7, 8
Metals	√	N/A	N/A	N/A	√	pg. 9	√	N/A	N/A	pg. 9

Notes:
√ indicates that all quality control criteria were met for the parameter as specified in the prescribed methods and data validation guidelines.
N/A indicates the parameter is not applicable to an analysis.
If criteria were not met and the data were qualified, a page number is indicated where the qualification is detailed.
The data were evaluated for all validation criteria and were found to be in control except where noted. Any outliers are described in the text.

TABLE 2
FULL DATA VALIDATION SUMMARY
Sample 0312H021

Analysis	GC/MS Tuning	Target Compound List Identification	Compound or Analyte Quantification	Reported Detection Limits	Tentatively Identified Compounds	System Performance	Interference Check Sample	Graphite Furnace Quality Control
VOA 8260	√	√	√	√	N/A	√	N/A	N/A
Metals	N/A	N/A	√	√	N/A	√	√	N/A

Notes:

√ indicates that all quality control criteria were met for the parameter as specified in the prescribed methods and data validation guidelines.
N/A indicates the parameter is not applicable to an analysis.
If criteria were not met and the data were qualified, a page number is indicated where the qualification is detailed.
The data were evaluated for all validation criteria and were found to be in control except where noted. Any outliers found are described below.

DATA ASSESSMENT

VOLATILES (8260) ANALYSIS

I. Blank Contamination

A. Due to common laboratory contamination, the following results are considered nondetected (U4).

- Methylene chloride in samples 0312H019, 0312H020, 0312H021, 0312H022, 0312H023, 0312H024, 0312H020DL, 0312H021DL, 0312H022DL, and 0312H024DL.
- Acetone in samples 0312H019, 0312H020, 0312H021, 0312H022, 0312H023, 0312H024, 0312H025, and 0312H021DL.

Methylene chloride and Acetone are considered common laboratory contaminants when found at levels less than 5x the CRQL in environmental samples and not found in the associated blanks.

B. Due to method blank contamination, the following results are considered nondetected (U1).

- Chloroform in samples 0312H025, and 0312H024DL.

The following compounds were detected in the associated method blanks at the concentrations noted below.

Compound	Blank ID	Concentration, µg/L
Chloroform	Method blank 3/28/03	0.2

Detected results less than 5x the blank contamination were qualified.

C. Due to field, trip, and equipment rinsate blank contamination, the following results are considered nondetected (U2).

- Toluene in samples 0312H022, 0312H024, and 0312H025.

The following compounds were detected in the associated field, trip, and equipment rinsate blanks at the concentrations noted below.

Compound	Blank ID	Concentration, µg/L
Toluene	0312H019 (trip blank)	0.5

Detected results less than 5x the maximum blank contamination were qualified.

II. Calibrations

A. Due to severe calibration problems, the following detected results are qualified as estimated (J7) and nondetected results are rejected (R7).

- Acetone in all samples.

The following relative response factor (RRF) did not meet the QC limit of >0.05.

Calibration Date	Compound	RRF
3/25/03 0957 Init. Cal.	Acetone	0.032

B. Due to continuing calibration problems, the following nondetected results are qualified as estimated (UJ7).

- Bromomethane in samples 0312H025 and 0312H024DL.

The following continuing calibrations had percent differences (%D) of >25%.

Calibration Date	Compound	%D
4/02/03 0920	Bromomethane	-27.5

III. Other Qualifications

A. The following results are qualified as estimated (J).

- Toluene detected result was reported below the contract required report limit (RL) for sample 0312H019.
- 1,1,2-Trichloroethane, 1,1-Dichloroethane, and 1,2-Dichloropropane detected results were reported below the contract required report limit (RL) for sample 0312H020.
- cis-1,2-Dichloroethene detected result was reported below the contract required report limit (RL) for sample 0312H020DL.
- 1,1-Dichloroethene and 1,2-Dichloropropane detected result was reported below the contract required report limit (RL) for sample 0312H021.
- 1,1-Dichloroethane and Vinyl chloride detected results were reported below the contract required report limit (RL) for sample 0312H021DL.
- Chloromethane detected result was reported below the contract required report limit (RL) for sample 0312H022.
- cis-1,2-Dichloroethene detected result was reported below the contract required report limit (RL) for sample 0312H022DL.
- 1,2- Dichloroethane, 1,2-Dichloropropane, and trans-1,2-Dichloroethene detected results were reported below the contract required report limit (RL) for sample 0312H023.
- Carbon tetrachloride detected result was reported below the contract required report limit (RL) for sample 0312H023DL.
- 1,1-Dichloroethane, 1,2-Dichloropropane, 4-Methyl-2-pentanone, Benzene, Carbon disulfide, Chloromethane, Tetrachloroethene, and Vinyl chloride detected results were reported below the contract required report limit (RL) for sample 0312H024.
- 1,2-Dichloroethane detected result was reported below the contract required report limit (RL) for sample 0312H024DL.
- Toluene detected result was reported below the contract required report limit (RL) for sample 0312H025.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

B. The following result was qualified as estimated (J8) due to exceed calibration range.

- Trichloroethene for samples 0312H020, 0312H021, 0312H022, 0312H023, and 0312H024.
- 1,2-Dichloroethane for samples 0312H021, 0312H022, and 0312H024.
- cis-1,2-Dichloroethene for samples 0312H021 and 0312H023.
- Chloroform for samples 0312H022 and 0312H023.

Full Validation Criteria for Sample 0312H021

IV. GC/MS Tuning

A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS performance check. The samples were analyzed within 12 hours of the associated performance check.

V. Target Compound List (TCL) Identification

A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

VI. Compound Quantitation and Reported Detection Limits

A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were correctly quantitated. The reported detection limits were consistent with the contract required report limits and reflect any dilutions, weights, volumes, and percent moisture.

VII. Tentatively Identified Compounds (TICs)

A. TICs not performed.

VIII. System Performance

A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

CLP METALS ANALYSIS

I. Blank Contamination

A. Due to calibration and method blank contamination, the following results are considered nondetected (U1).

- Dissolved Iron for samples 0312H020 and 0312H023.

The following metals were detected in the associated calibration and method blanks at the concentrations noted below.

Analyte	Blank ID	Concentration, ug/L
Dissolved Iron	CCB3	5.6

Detected results less than 5x the maximum blank contamination were qualified.

II. Other Qualifications

A. The following results are qualified as estimated (J).

- Dissolved Arsenic detected result was reported above the IDL but below the CRDL for sample 0312H020.
- Dissolved Iron detected result was reported above the IDL but below the CRDL for sample 0312H022.

Results above the IDL but below the CRDL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

Full Validation Criteria for Sample 0312H021

III. Analyte Quantitation and Reported Detection Limits

A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with the contract required report limits and reflect any dilutions, weights, volumes, and percent moisture.

IV. Graphite Furnace Atomic Absorption (GFAA) Analysis

A. GFAA was not performed.

V. ICP Interference Check Sample

A. ICSAB percent recoveries were acceptable and spectral interference was not found.

OVERALL ASSESSMENT OF DATA

I. Method Compliance and Additional Comments

A. All analyses were conducted within all specifications of the requested methods.

II. Usability

A. Due to severe calibration problems in the Volatile analysis, the following were qualified as estimated: Acetone for ten samples; two samples were rejected for Acetone.

B. Due to common laboratory contamination in the Volatile analysis, the following were considered nondetected: Methylene chloride for ten samples; and Acetone for eight samples. Due to method blank contamination, Chloroform was considered nondetected for twosamples. Due to equipment rinsate contamination, the following were considered nondetected: Toluene for two samples. Due to continuing calibration problems, Bromomethane was qualified as estimated for two samples. Due to uncertainty in the analytical precision near the limit of detection, the following were qualified as estimated: Toluene for two samples; 1,1,2-Trichloroethane for one sample; 1,1-Dichloroethane for three samples; 1,2-Dichloropropane for four samples; cis-1,2-Dichloroethene for two samples; 1,1-Dichloroethene for one sample; Vinyl chloride for two samples; Chloromethane for two samples; 1,2- Dichloroethane for two samples; trans-1,2-Dichloroethene for one sample; Carbon tetrachloride for one sample; and 4-Methyl-2-pentanone, Benzene, Carbon disulfide, and Tetrachloroethene for one sample.

C. Volatile samples 0312H020, 0312H021, 0312H022, 0312H023, and 0312H024 were reanalyzed at a dilution due to Trichloroethene, 1,2-Dichloroethane, cis-1,2-Dichloroethene and Chloroform results exceeding the calibration range. The diluted results should be used as the final validated results as follows: Trichloroethene for samples 0312H020DL, 0312H021DL, 0312H022DL, 0312H023DL, and 0312H024DL; 1,2-Dichloroethane for samples 0312H021DL, 0312H022DL, and 0312H024DL; cis-1,2-Dichloroethene for samples 0312H021DL and 0312H023DL; Chloroform for samples 0312H022DL and 0312H023DL. Original and diluted results agree for all samples.

D. Due to calibration and method blank contamination in the Metals analyses, the following were considered nondetected: Dissolved Iron for two samples. Due to uncertainty in the analytical precision near the limit of detection, the following were qualified as estimated: Dissolved Arsenic for one sample; Dissolved Iron for one sample.

E. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation all other results are considered valid and usable for all purposes. In general, the absence of rejected data and the small number of qualifiers added to the data indicate high usability.

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Contracting Officer
Naval Facilities Engineering Command
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1230 Columbia Street, Suite 1100
San Diego, CA 92101-8517

DATE: 5/23/03
DO: 013
LOCATION:
Hunters Point Shipyard, San Francisco
California

FROM:

Michael Wanta, Contract Manager

DOCUMENT TITLE AND DATE:

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