APPENDIX D

Groundwater Quality Data

Well #: B-1
Sample #: _____

Groundwater Sampling Field Data Sheet

Project Number: 216-1598-012
Project Name: Tulalip Tribes
Project Address: -
Client Name: -

Date: 4/4/02
Location: Frontage Rd @ Quil Ceda Blvd
Sampled By: RS
Purged By: RS

Casing Diameter: 2" ✓ 4" _____ 6" _____ Other _____

Depth to Water (feet): 14.94
Depth of Well (feet): 20'
Reference Point (surveyors notch, etc.): top PVC
Date/Time Sampled: 4/4/02, 1320

Purge Volume Measurement Method: 1000 ml grad. cyl.
Date Purged: 4/4/02
Purge Time (from/to): 1300 - 1312

Purge Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$(5 casing volumes)
Purge Volume (gallons) for: 2" = (0.80)(h); 4" = (3.26)(h); 6" = (7.40)(h)
Calculated Purge Volume (gallons): Low flow Actual Purge Volume (gallons): 1 1/4 g

TIME (2400 hr)	CUMULATIVE VOLUME (gal)	PH (units)	Ec ~~(µmhos/cm 25°C)~~ mS/cm	COLOR (visual)	TURBIDITY (visual) *turb meter	ODOR	OTHER Temp °C	DO mg/L
1303	1 L	6.49	0.020	clear	none	none	26.5	5.3
1305	1/2 g	6.47	0.020	↓	↓	↓	25.5	5.70
1309	~1 g	6.55	0.020	↓	↓	↓	24.6	5.84
1310	1 g +	6.62	0.020	↓	↓	↓	24.3	6.5
1311	1 g +	6.71	0.021	↓	↓	↓	24.2	6.61
1312	~1 1/4 g	6.78	0.021	↓	*6.35 NTU	↓	24.1	6.6

Purging Equipment: port. Redi-Flo, low flo cell
Sampling Equipment: port Redi-Flo, disp. PE tubing

Laboratory: ARI
Chain-of-Custody (yes/no): _____
Shipment Method: sampler

Date Sent to Lab: 4/4/02
Field QC Sample Number: -
Split with (name(s)/organization(s)): -

Well Integrity: OK
Remarks: Purge @ 1L/2:11 min. (< 1/2L/min). Looks very clear. Well slow to recharge. Very low purge rate but water elevations going down. Well dried out. Waited 5 min. and filled sample bottles @ flow rate of < 1/2L/min.

Bottom of pump housing lowered to 18'. Water intake on pump @ 17.3'. Did not bump sump w/ pump housing.

Signature: Ronald A. Sim

Page 1 of 1

Well #: B-2
Sample #:

Groundwater Sampling Field Data Sheet

Project Number: 216-1598-012
Project Name: Tulalip Tribes
Project Address:
Client Name:

Date: 4/4/02
Location: Frontage Rd. Quil Ceda Blvd
Sampled By: RS
Purged By: RS

Casing Diameter: 2" ✓ 4" ____ 6" ____ Other ____

Depth to Water (feet): 13.42'
Depth of Well (feet): 20
Reference Point (surveyors notch, etc.): top PVC
Date/Time Sampled: 4/4/02, 1505

Purge Volume Measurement Method: 1000 ml grad cyl.
Date Purged: 4/4/02
Purge Time (from/to): 1444 - 1501

Purge Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)(5\ casing\ volumes)$
Purge Volume (gallons) for: 2" = (0.80)(h); 4" = (3.26)(h); 6" = (7.40)(h)
Calculated Purge Volume (gallons): Low flow Actual Purge Volume (gallons): 3 1/4 g

TIME (2400 hr)	CUMULATIVE VOLUME (gal)	PH (units)	Ec ~~(µmhos/cm~~ 25°c) mS/cm	COLOR (visual)	TURBIDITY (visual)	ODOR	OTHER Temp°C	DO
1447	1 L.	6.66	0.030	dark brown	very	none	~~1444~~ 26.8	0.[illegible]
1450	1 g.	6.76	0.028	↓	mod.-very	↓	26.8	0.4
1452	1 1/4 g.	6.71	0.028	light brown	mod	↓	26.8	1.0
1456	2 1/4 g.	6.62	0.028	very light brn	light	↓	26.3	1.6
1459	3 g.	6.57	0.027	clear fish	slight	↓	26.0	1.9
~~1[illegible]~~ 1500	3+ g.	6.59	0.027	↓	↓	↓	26.0	1.8
1501	3 1/4 g.	6.54	0.027	↓	6/8 NTU	↓	25.9	2.[illegible]

Purging Equipment: port. Redi-flo, low flow cell Sampling Equipment: port. Redi-flo, disp. PE tub

Laboratory: ARI
Chain-of-Custody (yes/no): yes
Shipment Method: sampler

Date Sent to Lab: 4/4/02
Field QC Sample Number: —
Split with (name(s)/organization(s): —

Well Integrity: OK
Remarks: very dirty brown initially, flow vol = 1L/2:16, Pump lowered slowly to 18 1/2 ft level (bottom of pump), should not have disturbed fines in sump. Water drawn fm ~ 18 ft level

Signature: Ronald A. [illegible]

Page 1 of 1

Well #: B-3
Sample #:

Groundwater Sampling Field Data Sheet

Project Number: 216-1598-012
Project Name: Tulalip Tribes
Project Address:
Client Name:

Date: 4/4/02
Location: Frontage Rd (Quil Ceda Blvd)
Sampled By: RS
Purged By: RS

Casing Diameter: 2" ✓ 4" ____ 6" ____ Other ____

Depth to Water (feet): 12.24'
Depth of Well (feet): 20'
Reference Point (surveyors notch, etc.): top PVC
Date/Time Sampled: 4/4/02, 1100

Purge Volume Measurement Method: 1000 ml grad cyl.
Date Purged: 4/4/02
Purge Time (from/to): 1033

Purge Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$(5 casing volumes)
Purge Volume (gallons) for: 2" = (0.80)(h); 4" = (3.26)(h); 6" = (7.40)(h)
Calculated Purge Volume (gallons): low flow Actual Purge Volume (gallons): 5½ g

TIME (2400 hr)	CUMULATIVE VOLUME (gal)	PH (units)	Ec ~~(µmhos/cm 25°C)~~ mS/cm	COLOR (visual)	TURBIDITY (visual)	ODOR	OTHER Temp	DO mg/L
1040	2 g	6.76	0.024	clear	~~mod~~ slight	none	15.3	8.61
1043	3 g	6.69	0.024	clear	very slight	↓	15.4	8.56
1045	3½ g	6.65	0.024	clear	none	none	15.6	8.57
1047	3¾ g	6.63	0.023	↓	↓	↓	15.7	8.51
1049	4¼ g	6.62	0.023	↓	↓	↓	15.8	8.41
1052	4¾ g	6.59	0.023	↓	↓	↓	16.1	8.35
1054	5 g	6.57	0.023	↓	↓	↓	16.2	8.2[illegible]
1056	5½ g	6.56	0.023	↓	33.5 NTU	↓	16.2	8.28

Purging Equipment: port Redi-flow, low flow cell
Sampling Equipment: port. Redi-flo, disp PE tubing

Laboratory: ARI
Chain-of-Custody (yes/no): yes
Shipment Method: sampler

Date Sent to Lab: 4/4/02
Field QC Sample Number: —
Split with (name(s)/organization(s): —

Well Integrity: OK
Remarks: Purging ~~very~~ slowly (1/42 s.). Water completely opaque muddy brown. Clearing up nicely after one gal. Cut purge vol. back after first meas (1/1:~~32~~ 16 s.).

bumped bottom, then draw pump up to posi flow

19' 2½" down fm top PVC to bottom of pump assembly. Water drawn from ~~the~~ 18.5' down fm top PVC. Casing exactly 20' deep.

Signature: Ronald R. Sm[illegible]

Page 1 of 1

B-2

19.21
- .71

Variable or Calibration changed at 040202 105232
Variable or Calibration changed at 040202 105516
Variable or Calibration changed at 040202 110250
Variable or Calibration changed at 040202 110442
Variable or Calibration changed at 040202 111306

TULALIP TRIBES FRONTAGE RD 4-4-02 RS

	Date MMDDYY	Time HHMMSS	Temp degC	pH units	SpCond mS/cm	DO mg/l	Redox mV
WELL B-3	40402	104014	15.28	6.76	0.024	8.61	360
	40402	104247	15.44	6.69	0.024	8.56	358
	40402	104515	15.61	6.65	0.024	8.52	358
	40402	104649	15.71	6.63	0.023	8.51	357
	40402	104902	15.84	6.62	0.023	8.41	356
	40402	105218	16.05	6.59	0.023	8.35	355
	40402	105420	16.15	6.57	0.023	8.27	354
	40402	105600	16.21	6.56	0.023	8.28	354
WELL B-1	40402	130307	26.49 *	6.49	0.020	5.32	375
	40402	130502	25.52	6.42	0.020	5.70	371
	40402	130910	24.56	6.55	0.020	5.84	353
	40402	131007	24.30	6.62	0.020	6.53	346
	40402	131102	24.23	6.71	0.021	6.64	341
	40402	131202	24.12	6.78	0.021	6.63	335
WELL B-2	40402	144702	26.80 *	6.66	0.030	0.91	367
	40402	145010	26.78	6.76	0.028	0.97	364
	40402	145202	26.78	6.71	0.028	1.04	363
	40402	145602	26.31	6.62	0.028	1.67	363
	40402	145917	26.02	6.57	0.027	1.90	364
	40402	150003	25.97	6.59	0.027	1.88	363
	40402	150102	25.89	6.54	0.027	2.00	364

Recovery finished at 040502 115826

* Temp data for Well B-1 & B-2 is erroneous. Pump decon in hot sun caused elevated temperature readings.

Hydrolab cal. log for [illegible] parameters

HYDROLAB SVR3/H20 CALIBRATION WORKSHEET

PROJECT NAME/NUMBER: _____

SAMPLING DATES: _____

SERIAL # OF DATA LOGGER: 12662

SERIAL # OF H20: 12658

REMINDER: ALLOW TWO MINUTES WARMUP BEFORE CALIBRATION OR USE.

			DISSOLVED OXYGEN					pH					SALINITY		REDOX	
Calib. by:	Date	Time (24 Hour)	Temp. (deg. C)	BP (mm Hg)	Sal. (ppt)	Initial DO (mg/L)	Final DO (mg/L)	Initial pH 7.0	Final pH 7.0	Temp. (deg. C)	Initial pH 10.0	Final pH 10.0	Initial (ppt)	Final (ppt)	Initial (mV)	Final (mV)
JB	4/2/02	10:50	22.87	767.0	0	8.68	8.67	7.01	6.99	23.45°	10.05	10.02	27.0	27.1	428	428

Dissolved Oxygen Method (circle one): (Air) Saturated Water Winkler Titration

STANDARDS:

Salinity: Standard NaCl Solution: 27.1 ppt Lot# 991122 Exp. Date 4/30/02

Referenced to IAPSO Standard Seawater, Batch # P-119 Prep. Date 2/28/92

pH Buffers: pH 7.0 Lot # Fisher 012698-24 Exp. Date: 3/2003

pH 10.0 Lot# Fisher 013279-24 Exp. Date: 8/2003

Barometric Pressure corrected for altitude* (circle one): Yes (N/Ap)

Depth calibrated at first site (circle one): Yes N/Ap

NOTES: Added fresh reference electrode filling solution, Redox std - Zobell's Solution - Expected = 428 ± 10mV @ 25°C, Ricca Chem. Co. Lot # 1110575, Exp: 6/2002. All parameters calibrated successfully.

4/2/02 - LBP = 767.0 - Directly from barometer

Enter date & local Barometric Pressure (Inches of Hg) at the time of calibration on the line above (e.g.-5/29/97 BP=29.90")

* Refer to Calibration Log for correction procedure.

Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
Analytical Chemists and Consultants
400 Ninth Avenue North
Seattle, WA 98109-4708
206-621-6490 206-621-7523

Page ___ of ___ Turn Around Requested: _____

Report to: R. Simmons	Proj Name: Tukwila Trikes
Company: Parametrix	Proj Number: 216-1598-012
Address: 5808 Lk Washington Blvd NE Suite 200 Kirkland WA	Sampler: R. Simmons
Phone: (425) 822-8880	Shipping Method: sample
Fax:	AirBill: —

Sample ID	Sample Date	Sample Time	Sample Matrix	No Containers	VOA, purgeable Halocarbons	diss. metals	Hex Chrom	Amm. TOC, COD	total cyanide	Alkalinity	TKN, total Phos	Conductivity, Cl, NO2, NO3, SO4, Total Phos	VOA, SIMS	Notes/Comments
B-1	4/4/02	1320	water		1	1	1	1	1	1	1	1		B-1 & B-3 total metals not preserved
B-2	↓	1505	↓		1	1	1	1	1	1	1	1	4/4	B-1 & B-3 diss. metals field filtered but not preserved
B-3	↓	1100	↓		1	1	1	1	1	1	1	1		Take digest from total metal bottles for cyanide

Relinquished: (Signature)	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes
Printed name: Mark D. Harris	Printed name: Ron Simmons	Printed name:	
Company: ARI	Company: PMX	Company:	
Date: 4/4/02 Time: 1705	Date: 4/4/02 Time: 1705	Date: Time:	
Received by:	**Received by:**	**Received by:**	
Printed name:	Printed name: Mark D. Harris	Printed name:	
Company:	Company: ARI	Company:	Number of Coolers:
Date: Time:	Date: 4/4/02 Time: 1705	Date: Time:	Cooler Temp(s):
			COC Seals Intact?
			Bottles Intact?

Analytical Resources, Incorporated
Analytical Chemists and Consultants

RECEIVED
MAY 20 2002
Ken F.
Parametrix, Inc.
File #

9 May 2002

Ron Simmons
Parametrix, Inc.
5808 Lake Washington Blvd. N.E.
Suite 200
Kirkland, WA 98033

RE: Client Project: 216-1598-012, Tulalip Tribes
ARI Job No. EG28

Dear Ron:

Please find enclosed the original chain-of-custody record and the final results for the samples from the project referenced above.

Three water samples were received on April 4, 2002. All samples were received intact and there were no discrepancies in the paperwork.

The samples were analyzed for VOAs, SIM-vinyl chloride, total and dissolved metals and conventional parameters as requested.

Due to an instrument malfunction and the short TAT required for these samples, the analyses for TOC and dissolved TOC on the water samples were sub-contracted to AMTest of Redmond, Washington.

We are unable to test for two of the requested VOA compounds: bromofluorobenzene and fluorobenzene. As discussed, these compounds were deleted from the target list prior to analysis.

A 5x concentration step was employed in an attempt to achieve the requested detection limits for the dissolved metals. The lowest detection limit we were able to achieve for zinc is 0.8 ug/L.

A small amount of copper was detected in the method blank associated with the dissolved metals analyses of these samples. Copper was detected in all three samples associated with this blank. The concentrations measured were comparable to the amount found in the blank. Copper is a frequently detected laboratory contaminant when a concentration is performed. No corrective actions were taken based on the blank contamination. All of the values for dissolved copper are likely the result of laboratory contamination.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Simmons
Parametrix, Inc.
216-1598-012 (04/01A), Tulalip Tribes
EG28
Water

9 May 2002

No further analytical complications were noted for these analyses.

Copies of these reports and the associated raw data will remain on file with ARI. Should you have any questions regarding these results, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mark D. Harris
Project Manager
206/695-6210
<mark@arilabs.com>

enclosures

cc: File EG28

MDH/mdh

E G28

Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
Analytical Chemists and Consultants
400 Ninth Avenue North
Seattle, WA 98109-4708
206-621-6490 206-621-7523 (fax)

Page ___ of ___ Turn Around Requested: _____

02-4189-95 41

Report to: R. Simmons	Proj Name: Tulalip Trikes
Company: Parametrix	Proj Number: 216-1598-012
Address: 5808 LK Washington Blvd NE, Suite 200 Kirkland WA	Sampler: R. Simmons
Phone: (425) 822-8880	Shipping Method: sampler
Fax:	AirBill: —

Analyses Requested

Sample ID	Sample Date	Sample Time	Sample Matrix	No Containers	hardness, total metals	diss. metals	Hex Chrome	Amm, TOC, COD	total coliform	Alkalinity	TKN, total Phos	Cl, Chl, NO_2, NO_3, SO4, SRP, TDS, cya	VOA, SIMS	Notes/Comments
B-1	4/4/02	1320	water		1	1	1	1	1	1	1	1		B-1 & B-3 total metals not preserve
B-2		1505	↓		1	1	1	1	1	1	1	1	4	
B-3	↓	1100	↓		1	1	1	1	1	1	1	1		
														B-1 & B-3 diss. metals field filtered but not preserv
														Take aliquot from total met bottles for cyanide samp

Relinquished:	Relinquished:	Relinquished:	Special Instructions/Notes
(Signature) Mark D. Harris	(Signature) Ronald A. Simmons	(Signature)	
Printed name: MARK D. HARRIS	Printed name: Ron Simmons	Printed name:	
Company: ARI	Company: PMX	Company:	
Date: 4/4/02 Time: 1705	Date: 4/4/02 Time: 1705	Date: Time:	
Received by:	Received by: Mark D. Harris	Received by:	
Printed name:	Printed name: MARK D. HARRIS	Printed name:	
Company:	Company: ARI	Company:	Number of Coolers:
			Cooler Temp(s):
Date: Time:	Date: 4/4/02 Time: 1705	Date: Time:	COC Seals Intact?
			Bottles Intact?

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANIC COMPOUND DATA REPORTING QUALIFIERS

U	Indicates the compound was undetected at the reported concentration. (Same as ND).
J	Indicates an estimated concentration when the value is less than the calculated reporting limit.
D	Indicates the surrogate/spike(s) was not detected, due to dilution of extract.
NR	Indicates the surrogate recovery cannot be reported due to matrix interference.
E	Indicates a value above the linear range of the detector. Sample dilution required.
S	Indicates no value reported due to saturation of the detector. Sample dilution required.
NA	Indicates compound not analyzed for.
M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.
B	Indicates possible/probable blank contamination. Flagged when the analyte is detected in the blank as well as the sample.
Y	Indicates raised reporting limit due to background interference or to activity on the instrument. Compound is still not detected at or above the raised level.
C	Indicates a probable hit that cannot be confirmed due to matrix interference (GC).

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

Sample No: Method Blank

Lab Sample ID: 041502MB
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 04/18/02

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: NA
Date Received: NA

Instrument: FINN1
Date Analyzed: 04/15/02 00:17

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	ug/L
74-87-3	Chloromethane	0.2 U
74-83-9	Bromomethane	0.2 U
75-01-4	Vinyl Chloride	0.2 U
75-00-3	Chloroethane	0.2 U
75-09-2	Methylene Chloride	0.3 U
75-35-4	1,1-Dichloroethene	0.2 U
75-34-3	1,1-Dichloroethane	0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2 U
67-66-3	Chloroform	0.2 U
107-06-2	1,2-Dichloroethane	0.2 U
71-55-6	1,1,1-Trichloroethane	0.2 U
56-23-5	Carbon Tetrachloride	0.2 U
75-27-4	Bromodichloromethane	0.2 U
78-87-5	1,2-Dichloropropane	0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2 U
79-01-6	Trichloroethene	0.2 U
124-48-1	Dibromochloromethane	0.2 U
79-00-5	1,1,2-Trichloroethane	0.2 U
71-43-2	Benzene	0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2 U
75-25-2	Bromoform	0.2 U
127-18-4	Tetrachloroethene	0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2 U
108-88-3	Toluene	0.2 U
108-90-7	Chlorobenzene	0.2 U
100-41-4	Ethylbenzene	0.2 U
100-42-5	Styrene	0.2 U
75-69-4	Trichlorofluoromethane	0.2 U
108-38-3	m,p-Xylene	0.4 U
95-47-6	o-Xylene	0.2 U
95-50-1	1,2-Dichlorobenzene	0.2 U

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample No: Method Blank

Lab Sample ID: 041502MB
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 04/18/02

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: NA
Date Received: NA

Instrument: FINN1
Date Analyzed: 04/15/02 00:17

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	ug/L
541-73-1	1,3-Dichlorobenzene	0.2 U
106-46-7	1,4-Dichlorobenzene	0.2 U
563-58-6	1,1-Dichloropropene	0.2 U
74-95-3	Dibromomethane	0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U
96-18-4	1,2,3-Trichloropropane	0.5 U
108-67-8	1,3,5-Trimethylbenzene	0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2 U
87-68-3	Hexachlorobutadiene	0.5 U
106-93-4	Ethylene Dibromide	0.2 U
74-97-5	Bromochloromethane	0.2 U
75-71-8	Dichlorodifluoromethane	0.2 U
594-20-7	2,2-Dichloropropane	0.2 U
142-28-9	1,3-Dichloropropane	0.2 U
98-82-8	Isopropylbenzene	0.2 U
103-65-1	n-Propylbenzene	0.2 U
108-86-1	Bromobenzene	0.2 U
95-49-8	2-Chlorotoluene	0.2 U
106-43-4	4-Chlorotoluene	0.2 U
98-06-6	tert-Butylbenzene	0.2 U
135-98-8	sec-Butylbenzene	0.2 U
99-87-6	4-Isopropyltoluene	0.2 U
104-51-8	n-Butylbenzene	0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5 U
91-20-3	Naphthalene	0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5 U

Volatile Surrogate Recovery	
d4-1,2-Dichloroethane	102%
d8-Toluene	98.8%
Bromofluorobenzene	100%
d4-1,2-Dichlorobenzene	100%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

Sample No: B-2

Lab Sample ID: EG28B
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 04/18/02

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Instrument: FINN1
Date Analyzed: 04/15/02 02:40

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	ug/L
74-87-3	Chloromethane	0.2 U
74-83-9	Bromomethane	0.2 U
75-01-4	Vinyl Chloride	0.2 U
75-00-3	Chloroethane	0.2 U
75-09-2	Methylene Chloride	0.3 U
75-35-4	1,1-Dichloroethene	0.2 U
75-34-3	1,1-Dichloroethane	0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2 U
67-66-3	Chloroform	0.2 U
107-06-2	1,2-Dichloroethane	0.2 U
71-55-6	1,1,1-Trichloroethane	0.2 U
56-23-5	Carbon Tetrachloride	0.2 U
75-27-4	Bromodichloromethane	0.2 U
78-87-5	1,2-Dichloropropane	0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2 U
79-01-6	Trichloroethene	0.2 U
124-48-1	Dibromochloromethane	0.2 U
79-00-5	1,1,2-Trichloroethane	0.2 U
71-43-2	Benzene	0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2 U
75-25-2	Bromoform	0.2 U
127-18-4	Tetrachloroethene	0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2 U
108-88-3	Toluene	0.2 U
108-90-7	Chlorobenzene	0.2 U
100-41-4	Ethylbenzene	0.2 U
100-42-5	Styrene	0.2 U
75-69-4	Trichlorofluoromethane	0.2 U
108-38-3	m,p-Xylene	0.4 U
95-47-6	o-Xylene	0.2 U
95-50-1	1,2-Dichlorobenzene	0.2 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

Sample No: B-2

Lab Sample ID: EG28B
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 04/18/02

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Instrument: FINN1
Date Analyzed: 04/15/02 02:40

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	ug/L
541-73-1	1,3-Dichlorobenzene	0.2 U
106-46-7	1,4-Dichlorobenzene	0.2 U
563-58-6	1,1-Dichloropropene	0.2 U
74-95-3	Dibromomethane	0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U
96-18-4	1,2,3-Trichloropropane	0.5 U
108-67-8	1,3,5-Trimethylbenzene	0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2 U
87-68-3	Hexachlorobutadiene	0.5 U
106-93-4	Ethylene Dibromide	0.2 U
74-97-5	Bromochloromethane	0.2 U
75-71-8	Dichlorodifluoromethane	0.2 U
594-20-7	2,2-Dichloropropane	0.2 U
142-28-9	1,3-Dichloropropane	0.2 U
98-82-8	Isopropylbenzene	0.2 U
103-65-1	n-Propylbenzene	0.2 U
108-86-1	Bromobenzene	0.2 U
95-49-8	2-Chlorotoluene	0.2 U
106-43-4	4-Chlorotoluene	0.2 U
98-06-6	tert-Butylbenzene	0.2 U
135-98-8	sec-Butylbenzene	0.2 U
99-87-6	4-Isopropyltoluene	0.2 U
104-51-8	n-Butylbenzene	0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5 U
91-20-3	Naphthalene	0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5 U

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	97.8%
d8-Toluene	94.8%
Bromofluorobenzene	97.8%
d4-1,2-Dichlorobenzene	99.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

Sample No: Trip Blanks

Lab Sample ID: EG28D
LIMS ID: 02-4192
Matrix: Water
Data Release Authorized:
Reported: 04/18/02

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Instrument: FINN1
Date Analyzed: 04/15/02 02:15

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	ug/L
74-87-3	Chloromethane	0.2 U
74-83-9	Bromomethane	0.2 U
75-01-4	Vinyl Chloride	0.2 U
75-00-3	Chloroethane	0.2 U
75-09-2	Methylene Chloride	0.3 U
75-35-4	1,1-Dichloroethene	0.2 U
75-34-3	1,1-Dichloroethane	0.2 U
156-60-5	trans-1,2-Dichloroethene	0.2 U
156-59-2	cis-1,2-Dichloroethene	0.2 U
67-66-3	Chloroform	0.2 U
107-06-2	1,2-Dichloroethane	0.2 U
71-55-6	1,1,1-Trichloroethane	0.2 U
56-23-5	Carbon Tetrachloride	0.2 U
75-27-4	Bromodichloromethane	0.2 U
78-87-5	1,2-Dichloropropane	0.2 U
10061-01-5	cis-1,3-Dichloropropene	0.2 U
79-01-6	Trichloroethene	0.2 U
124-48-1	Dibromochloromethane	0.2 U
79-00-5	1,1,2-Trichloroethane	0.2 U
71-43-2	Benzene	0.2 U
10061-02-6	trans-1,3-Dichloropropene	0.2 U
75-25-2	Bromoform	0.2 U
127-18-4	Tetrachloroethene	0.2 U
79-34-5	1,1,2,2-Tetrachloroethane	0.2 U
108-88-3	Toluene	0.2 U
108-90-7	Chlorobenzene	0.2 U
100-41-4	Ethylbenzene	0.2 U
100-42-5	Styrene	0.2 U
75-69-4	Trichlorofluoromethane	0.2 U
108-38-3	m,p-Xylene	0.4 U
95-47-6	o-Xylene	0.2 U
95-50-1	1,2-Dichlorobenzene	0.2 U

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample No: Trip Blanks

Lab Sample ID: EG28D
LIMS ID: 02-4192
Matrix: Water
Data Release Authorized:
Reported: 04/18/02

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Instrument: FINN1
Date Analyzed: 04/15/02 02:15

Sample Amount: 20.0 mL
Purge Volume: 20.0 mL

CAS Number	Analyte	ug/L
541-73-1	1,3-Dichlorobenzene	0.2 U
106-46-7	1,4-Dichlorobenzene	0.2 U
563-58-6	1,1-Dichloropropene	0.2 U
74-95-3	Dibromomethane	0.2 U
630-20-6	1,1,1,2-Tetrachloroethane	0.2 U
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U
96-18-4	1,2,3-Trichloropropane	0.5 U
108-67-8	1,3,5-Trimethylbenzene	0.2 U
95-63-6	1,2,4-Trimethylbenzene	0.2 U
87-68-3	Hexachlorobutadiene	0.5 U
106-93-4	Ethylene Dibromide	0.2 U
74-97-5	Bromochloromethane	0.2 U
75-71-8	Dichlorodifluoromethane	0.2 U
594-20-7	2,2-Dichloropropane	0.2 U
142-28-9	1,3-Dichloropropane	0.2 U
98-82-8	Isopropylbenzene	0.2 U
103-65-1	n-Propylbenzene	0.2 U
108-86-1	Bromobenzene	0.2 U
95-49-8	2-Chlorotoluene	0.2 U
106-43-4	4-Chlorotoluene	0.2 U
98-06-6	tert-Butylbenzene	0.2 U
135-98-8	sec-Butylbenzene	0.2 U
99-87-6	4-Isopropyltoluene	0.2 U
104-51-8	n-Butylbenzene	0.2 U
120-82-1	1,2,4-Trichlorobenzene	0.5 U
91-20-3	Naphthalene	0.5 U
87-61-6	1,2,3-Trichlorobenzene	0.5 U

Volatile Surrogate Recovery	
d4-1,2-Dichloroethane	92.0%
d8-Toluene	93.5%
Bromofluorobenzene	99.2%
d4-1,2-Dichlorobenzene	98.5%

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: EG28SB
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 04/18/02
Date Analyzed: 04/15/02
Instrument: FINN1

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE AMT	% RECOVERY
Chloromethane	4.20	4.0	105%
Bromomethane	4.08	4.0	102%
Vinyl Chloride	4.30	4.0	108%
Chloroethane	3.82	4.0	95.5%
Methylene Chloride	3.60	4.0	90.0%
1,1-Dichloroethene	3.78	4.0	94.5%
1,1-Dichloroethane	3.50	4.0	87.5%
trans-1,2-Dichloroethene	3.53	4.0	88.2%
cis-1,2-Dichloroethene	3.53	4.0	88.2%
Chloroform	3.49	4.0	87.2%
1,2-Dichloroethane	3.76	4.0	94.0%
1,1,1-Trichloroethane	3.53	4.0	88.2%
Carbon Tetrachloride	3.66	4.0	91.5%
Bromodichloromethane	3.53	4.0	88.2%
1,2-Dichloropropane	3.91	4.0	97.8%
cis-1,3-Dichloropropene	3.61	4.0	90.2%
Trichloroethene	3.74	4.0	93.5%
Dibromochloromethane	3.57	4.0	89.2%
1,1,2-Trichloroethane	3.67	4.0	91.8%
Benzene	3.66	4.0	91.5%
trans-1,3-Dichloropropene	3.22	4.0	80.5%
Bromoform	3.50	4.0	87.5%
Tetrachloroethene	3.68	4.0	92.0%
1,1,2,2-Tetrachloroethane	3.54	4.0	88.5%
Toluene	3.52	4.0	88.0%
Chlorobenzene	3.45	4.0	86.2%
Ethylbenzene	3.56	4.0	89.0%
Styrene	3.52	4.0	88.0%
Trichlorofluoromethane	3.39	4.0	84.8%
m,p-Xylene	7.21	8.0	90.1%
O-Xylene	3.45	4.0	86.2%
1,2-Dichlorobenzene	3.53	4.0	88.2%
1,3-Dichlorobenzene	3.48	4.0	87.0%

Reported in ug/L

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: EG28SB
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized: [illegible]
Reported: 04/18/02
Date Analyzed: 04/15/02
Instrument: FINN1

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE AMT	% RECOVERY
1,4-Dichlorobenzene	3.38	4.0	84.5%
1,1-Dichloropropene	3.94	4.0	98.5%
Dibromomethane	3.42	4.0	85.5%
1,1,1,2-Tetrachloroethane	3.66	4.0	91.5%
1,2-Dibromo-3-chloropropane	3.63	4.0	90.8%
1,2,3-Trichloropropane	3.85	4.0	96.2%
1,3,5-Trimethylbenzene	3.56	4.0	89.0%
1,2,4-Trimethylbenzene	3.64	4.0	91.0%
Hexachlorobutadiene	3.65	4.0	91.2%
Ethylene Dibromide	3.56	4.0	89.0%
Bromochloromethane	3.50	4.0	87.5%
Dichlorodifluoromethane	8.39	4.0	210%
2,2-Dichloropropane	3.64	4.0	91.0%
1,3-Dichloropropane	3.69	4.0	92.2%
Isopropylbenzene	3.58	4.0	89.5%
n-Propylbenzene	3.57	4.0	89.2%
Bromobenzene	3.51	4.0	87.8%
2-Chlorotoluene	3.56	4.0	89.0%
4-Chlorotoluene	3.43	4.0	85.8%
tert-Butylbenzene	3.63	4.0	90.8%
sec-Butylbenzene	3.52	4.0	88.0%
4-Isopropyltoluene	3.60	4.0	90.0%
n-Butylbenzene	3.53	4.0	88.2%
1,2,4-Trichlorobenzene	3.43	4.0	85.8%
Naphthalene	3.40	4.0	85.0%
1,2,3-Trichlorobenzene	3.42	4.0	85.5%

Lab Control Surrogate Recovery	
d4-1,2-Dichloroethane	96.8%
d8-Toluene	97.2%
Bromofluorobenzene	98.2%
d4-1,2-Dichlorobenzene	102%

Reported in ug/L

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: EG28LCS
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 05/09/02
Date Analyzed: 04/15/02
Instrument: FINN1

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE AMT	% RECOVERY
Chloromethane	4.20	4.0	105%
Bromomethane	4.08	4.0	102%
Vinyl Chloride	4.30	4.0	108%
Chloroethane	3.82	4.0	95.5%
Methylene Chloride	3.60	4.0	90.0%
1,1-Dichloroethene	3.78	4.0	94.5%
1,1-Dichloroethane	3.50	4.0	87.5%
trans-1,2-Dichloroethene	3.53	4.0	88.2%
cis-1,2-Dichloroethene	3.53	4.0	88.2%
Chloroform	3.49	4.0	87.2%
1,2-Dichloroethane	3.76	4.0	94.0%
1,1,1-Trichloroethane	3.53	4.0	88.2%
Carbon Tetrachloride	3.66	4.0	91.5%
Bromodichloromethane	3.53	4.0	88.2%
1,2-Dichloropropane	3.91	4.0	97.8%
cis-1,3-Dichloropropene	3.61	4.0	90.2%
Trichloroethene	3.74	4.0	93.5%
Dibromochloromethane	3.57	4.0	89.2%
1,1,2-Trichloroethane	3.67	4.0	91.8%
Benzene	3.66	4.0	91.5%
trans-1,3-Dichloropropene	3.22	4.0	80.5%
Bromoform	3.50	4.0	87.5%
Tetrachloroethene	3.68	4.0	92.0%
1,1,2,2-Tetrachloroethane	3.54	4.0	88.5%
Toluene	3.52	4.0	88.0%
Chlorobenzene	3.45	4.0	86.2%
Ethylbenzene	3.56	4.0	89.0%
Styrene	3.52	4.0	88.0%
Trichlorofluoromethane	3.39	4.0	84.8%
m,p-Xylene	7.21	8.0	90.1%
O-Xylene	3.45	4.0	86.2%
1,2-Dichlorobenzene	3.53	4.0	88.2%
1,3-Dichlorobenzene	3.48	4.0	87.0%

Reported in ug/L

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: EG28LCS
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 05/09/02
Date Analyzed: 04/15/02
Instrument: FINN1

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE AMT	% RECOVERY
1,4-Dichlorobenzene	3.38	4.0	84.5%
1,1-Dichloropropene	3.94	4.0	98.5%
Dibromomethane	3.42	4.0	85.5%
1,1,1,2-Tetrachloroethane	3.66	4.0	91.5%
1,2-Dibromo-3-chloropropane	3.63	4.0	90.8%
1,2,3-Trichloropropane	3.85	4.0	96.2%
1,3,5-Trimethylbenzene	3.56	4.0	89.0%
1,2,4-Trimethylbenzene	3.64	4.0	91.0%
Hexachlorobutadiene	3.65	4.0	91.2%
Ethylene Dibromide	3.56	4.0	89.0%
Bromochloromethane	3.50	4.0	87.5%
Dichlorodifluoromethane	8.39	4.0	210%
2,2-Dichloropropane	3.64	4.0	91.0%
1,3-Dichloropropane	3.69	4.0	92.2%
Isopropylbenzene	3.58	4.0	89.5%
n-Propylbenzene	3.57	4.0	89.2%
Bromobenzene	3.51	4.0	87.8%
2-Chlorotoluene	3.56	4.0	89.0%
4-Chlorotoluene	3.43	4.0	85.8%
tert-Butylbenzene	3.63	4.0	90.8%
sec-Butylbenzene	3.52	4.0	88.0%
4-Isopropyltoluene	3.60	4.0	90.0%
n-Butylbenzene	3.53	4.0	88.2%
1,2,4-Trichlorobenzene	3.43	4.0	85.8%
Naphthalene	3.40	4.0	85.0%
1,2,3-Trichlorobenzene	3.42	4.0	85.5%

Lab Control Surrogate Recovery	
d4-1,2-Dichloroethane	96.8%
d8-Toluene	97.2%
Bromofluorobenzene	98.2%
d4-1,2-Dichlorobenzene	102%

Reported in ug/L

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: EG28LCSD
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 05/09/02
Date Analyzed: 04/15/02
Instrument: FINN1

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

LABORATORY CONTROL DUPLICATE CONSTITUENT	SPIKE VALUE	SPIKE AMT	% RECOVERY	% RPD
Chloromethane	4.34	4.00	108%	3.3%
Bromomethane	4.26	4.00	106%	4.3%
Vinyl Chloride	4.42	4.00	110%	2.8%
Chloroethane	3.66	4.00	91.5%	4.3%
Methylene Chloride	3.82	4.00	95.5%	5.9%
1,1-Dichloroethene	3.88	4.00	97.0%	2.6%
1,1-Dichloroethane	3.70	4.00	92.5%	5.6%
trans-1,2-Dichloroethene	3.71	4.00	92.8%	5.0%
cis-1,2-Dichloroethene	3.72	4.00	93.0%	5.2%
Chloroform	3.68	4.00	92.0%	5.3%
1,2-Dichloroethane	3.90	4.00	97.5%	3.7%
1,1,1-Trichloroethane	3.67	4.00	91.8%	3.9%
Carbon Tetrachloride	3.60	4.00	90.0%	1.7%
Bromodichloromethane	3.55	4.00	88.8%	0.6%
1,2-Dichloropropane	4.02	4.00	100%	2.8%
cis-1,3-Dichloropropene	3.75	4.00	93.8%	3.8%
Trichloroethene	3.89	4.00	97.2%	3.9%
Dibromochloromethane	3.29	4.00	82.2%	8.2%
1,1,2-Trichloroethane	3.89	4.00	97.2%	5.8%
Benzene	3.79	4.00	94.8%	3.5%
trans-1,3-Dichloropropene	3.33	4.00	83.2%	3.4%
Bromoform	3.38	4.00	84.5%	3.5%
Tetrachloroethene	3.77	4.00	94.2%	2.4%
1,1,2,2-Tetrachloroethane	3.54	4.00	88.5%	0.0%
Toluene	3.63	4.00	90.8%	3.1%
Chlorobenzene	3.61	4.00	90.2%	4.5%
Ethylbenzene	3.70	4.00	92.5%	3.9%
Styrene	3.71	4.00	92.8%	5.3%
Trichlorofluoromethane	3.40	4.00	85.0%	0.3%
m,p-Xylene	7.39	8.00	92.4%	2.5%
O-Xylene	3.58	4.00	89.5%	3.7%
1,2-Dichlorobenzene	3.62	4.00	90.5%	2.5%
1,3-Dichlorobenzene	3.48	4.00	87.0%	0.0%

Reported in ug/L

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: EG28LCSD
LIMS ID: 02-4190
Matrix: Water
Data Release Authorized:
Reported: 05/09/02
Date Analyzed: 04/15/02
Instrument: FINN1

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

LABORATORY CONTROL DUPLICATE CONSTITUENT	SPIKE VALUE	SPIKE AMT	% RECOVERY	% RPD
1,4-Dichlorobenzene	3.51	4.00	87.8%	3.8%
1,1-Dichloropropene	4.0	4.00	100%	1.5%
Dibromomethane	3.53	4.00	88.2%	3.2%
1,1,1,2-Tetrachloroethane	3.71	4.00	92.8%	1.4%
1,2-Dibromo-3-chloropropane	3.5	4.00	87.5%	3.6%
1,2,3-Trichloropropane	3.67	4.00	91.8%	4.8%
1,3,5-Trimethylbenzene	3.55	4.00	88.8%	0.3%
1,2,4-Trimethylbenzene	3.72	4.00	93.0%	2.2%
Hexachlorobutadiene	3.67	4.00	91.8%	0.5%
Ethylene Dibromide	3.64	4.00	91.0%	2.2%
Bromochloromethane	3.74	4.00	93.5%	6.6%
Dichlorodifluoromethane	6.23	4.00	156%	30.0%
2,2-Dichloropropane	3.66	4.00	91.5%	0.5%
1,3-Dichloropropane	3.90	4.00	97.5%	5.5%
Isopropylbenzene	3.52	4.00	88.0%	1.7%
n-Propylbenzene	3.56	4.00	89.0%	0.3%
Bromobenzene	3.53	4.00	88.2%	0.6%
2-Chlorotoluene	3.46	4.00	86.5%	2.8%
4-Chlorotoluene	3.68	4.00	92.0%	7.0%
tert-Butylbenzene	3.46	4.00	86.5%	4.8%
sec-Butylbenzene	3.52	4.00	88.0%	0.0%
4-Isopropyltoluene	3.61	4.00	90.2%	0.3%
n-Butylbenzene	3.53	4.00	88.2%	0.0%
1,2,4-Trichlorobenzene	3.53	4.00	88.2%	2.9%
Naphthalene	3.54	4.00	88.5%	4.0%
1,2,3-Trichlorobenzene	3.45	4.00	86.2%	0.9%

Lab Contrl Duplicate Surr Rec	
d4-1,2-Dichloroethane	100%
d8-Toluene	100%
Bromofluorobenzene	99.5%
d4-1,2-Dichlorobenzene	102%

Reported in ug/L

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
latiles by Selected Ion Monitoring

Sample No: Method Blank

Lab Sample ID: EG28MB
LIMS ID: 02-4190
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: NA
Date Received: NA

Data Release Authorized:
Reported: 04/15/02

Instrument: FINN7
Date Analyzed: 04/09/02

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	ug/L
75-01-4	Vinyl Chloride	0.020 U

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	97.2%

ORGANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring

ANALYTICAL RESOURCES INCORPORATED

Sample No: B-2

Lab Sample ID: EG28B
LIMS ID: 02-4190
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Data Release Authorized:
Reported: 04/15/02

Instrument: FINN7
Date Analyzed: 04/09/02

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	ug/L
75-01-4	Vinyl Chloride	0.020 U

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	99.8%

ANALYTICAL RESOURCES INCORPORATED

.GANICS ANALYSIS DATA SHEET
Volatiles by Selected Ion Monitoring GC/MS

Lab Sample ID: EG28SB
LIMS ID: 02-4190
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: NA

Data Release Authorized:
Reported: 04/15/02
Date Analyzed: 04/09/02
Instrument: FINN7

LABORATORY CONTROL SAMPLE CONSTITUENT	SPIKE VALUE	SPIKE AMT	% RECOVERY
Vinyl Chloride	0.557	0.500	111%

Lab Control Surrogate Recovery

d4-1,2-Dichloroethane	97.4%

Reported in ppb (ug/L)

ANALYTICAL RESOURCES INCORPORATED

A Report - Method Blank Analysis

QC Report No: EG28-Parametrix, Inc.
Matrix: Water
Project: Tulalip Tribes
216-1598-012
Date Received: NA

Data Release Authorized:
Reported: 05/06/02

METHOD BLANK RESULTS
CONVENTIONALS

Analysis Date & Batch	Constituent	Units	Result	
04/06/02 04062#1	Hexavalent Chrome	mg/L	< 0.010	U
04/08/02 04082#1	Total Dissolved Solids	mg/L	< 0.0	U
04/05/02 04052#1	Fluoride	mg/L	< 0.1	U
04/05/02 04052#1	Chloride	mg/L	0.2	
04/11/02 04112#1	Total Cyanide	mg/L	< 0.005	U
04/17/02 04172#1	N-Ammonia	mg-N/L	< 0.010	U
04/05/02 04052#1	N-Nitrate	mg-N/L	0.1	
04/05/02 04052#1	N-Nitrite	mg-N/L	< 0.1	U
04/19/02 04192#1	Total Kjeldahl Nitrogen	mg-N/L	< 0.1	U
04/17/02 04172#1	Total Phosphorous	mg-P/L	< 0.008	U
04/05/02 04052#1	Ortho-Phosphorous	mg-P/L	< 0.004	U
04/05/02 04052#1	Sulfate	mg/L	0.1	
04/17/02	Chemical Oxygen Demand	mg/L	< 5.0	U

ANALYTICAL RESOURCES INCORPORATED

QA Report - Method Blank Analysis

Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: NA

Data Release Authorized:
Reported: 05/06/02

METHOD BLANK RESULTS
CONVENTIONALS

Analysis Date & Batch	Constituent	Units		Result	
04172#1					
04/05/02 04052#1	Total Coliform	CFU/100 mL	<	1	U

ANALYTICAL RESOURCES INCORPORATED

Final Report
Laboratory Analysis of Conventional Parameters

Sample No: B-1

Lab Sample ID: EG28A
LIMS ID: 02-4189
Matrix: Water

Data Release Authorized:
Reported: 05/06/02

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Analyte	Analysis Date & Batch	Method	RL	Units	Result
Alkalinity	04/16/02 04162#1	SM 2320	1.0	mg/L CaCO3	5.5
Hexavalent Chrome	04/06/02 04062#1	SM3500Cr-D	0.010	mg/L	< 0.010 U
Total Dissolved Solids	04/08/02 04082#1	EPA 160.1	5.0	mg/L	50
Fluoride	04/05/02 04052#1	EPA 300.0	0.1	mg/L	< 0.1 U
Chloride	04/05/02 04052#1	EPA 300.0	0.1	mg/L	2.3
Total Cyanide	04/11/02 04112#1	EPA 335.2	0.005	mg/L	< 0.005 U
N-Ammonia	04/17/02 04172#1	EPA 350.1M	0.010	mg-N/L	< 0.010 U
N-Nitrate	04/05/02 04052#1	EPA 300.0	0.1	mg-N/L	2.2
N-Nitrite	04/05/02 04052#1	EPA 300.0	0.1	mg-N/L	< 0.1 U
Total Kjeldahl Nitrogen	04/19/02 04192#1	EPA 351.4	0.5	mg-N/L	< 0.5 U
Total Phosphorous	04/17/02 04172#1	EPA 365.2	0.016	mg-P/L	0.021
Ortho-Phosphorous	04/05/02 04052#1	EPA 365.2	0.004	mg-P/L	0.011
Sulfate	04/05/02 04052#1	EPA 300.0	0.1	mg/L	4.5
Chemical Oxygen Demand	04/17/02 04172#1	EPA 410.4	5.0	mg/L	< 5.0 U
Total Coliform	04/05/02 04052#1	SM 9222 B	1	CFU/100 mL	< 1 U

Total Coliform analysis performed by membrane filtration technique.

RL Analytical reporting limit
U Undetected at reported detection limit

Report for EG28 received 04/04/02

ANALYTICAL RESOURCES INCORPORATED

Final Report
Laboratory Analysis of Conventional Parameters

Sample No: B-2

Lab Sample ID: EG28B
LIMS ID: 02-4190
Matrix: Water

Data Release Authorized:
Reported: 05/06/02

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Analyte	Analysis Date & Batch	Method	RL	Units	Result
Alkalinity	04/16/02 04162#1	SM 2320	1.0	mg/L CaCO3	16
Hexavalent Chrome	04/06/02 04062#1	SM3500Cr-D	0.010	mg/L	< 0.010 U
Total Dissolved Solids	04/08/02 04082#1	EPA 160.1	5.0	mg/L	63
Fluoride	04/05/02 04052#1	EPA 300.0	0.1	mg/L	0.1
Chloride	04/05/02 04052#1	EPA 300.0	0.1	mg/L	1.7
Total Cyanide	04/11/02 04112#1	EPA 335.2	0.005	mg/L	< 0.005 U
N-Ammonia	04/17/02 04172#1	EPA 350.1M	0.010	mg-N/L	< 0.010 U
N-Nitrate	04/05/02 04052#1	EPA 300.0	0.1	mg-N/L	1.7
N-Nitrite	04/05/02 04052#1	EPA 300.0	0.1	mg-N/L	< 0.1 U
Total Kjeldahl Nitrogen	04/19/02 04192#1	EPA 351.4	0.5	mg-N/L	< 0.5 U
Total Phosphorous	04/17/02 04172#1	EPA 365.2	0.016	mg-P/L	0.20
Ortho-Phosphorous	04/05/02 04052#1	EPA 365.2	0.004	mg-P/L	0.020
Sulfate	04/05/02 04052#1	EPA 300.0	0.1	mg/L	10.0
Chemical Oxygen Demand	04/17/02 04172#1	EPA 410.4	5.0	mg/L	5.5
Total Coliform	04/05/02 04052#1	SM 9222 B	1	CFU/100 mL	< 1 U

Total Coliform analysis performed by membrane filtration technique.

RL Analytical reporting limit
U Undetected at reported detection limit

Report for EG28 received 04/04/02

ANALYTICAL RESOURCES INCORPORATED

Final Report
Laboratory Analysis of Conventional Parameters

Sample No: B-3

Lab Sample ID: EG28C
LIMS ID: 02-4191
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Data Release Authorized:
Reported: 05/06/02

Analyte	Analysis Date & Batch	Method	RL	Units	Result
Alkalinity	04/16/02 04162#1	SM 2320	1.0	mg/L CaCO3	6.6
Hexavalent Chrome	04/06/02 04062#1	SM3500Cr-D	0.010	mg/L	< 0.010 U
Total Dissolved Solids	04/08/02 04082#1	EPA 160.1	5.0	mg/L	44
Fluoride	04/05/02 04052#1	EPA 300.0	0.1	mg/L	< 0.1 U
Chloride	04/05/02 04052#1	EPA 300.0	0.1	mg/L	1.6
Total Cyanide	04/11/02 04112#1	EPA 335.2	0.005	mg/L	< 0.005 U
N-Ammonia	04/17/02 04172#1	EPA 350.1M	0.010	mg-N/L	< 0.010 U
N-Nitrate	04/05/02 04052#1	EPA 300.0	0.1	mg-N/L	0.4
N-Nitrite	04/05/02 04052#1	EPA 300.0	0.1	mg-N/L	< 0.1 U
Total Kjeldahl Nitrogen	04/19/02 04192#1	EPA 351.4	0.5	mg-N/L	< 0.5 U
Total Phosphorous	04/17/02 04172#1	EPA 365.2	0.016	mg-P/L	0.094
Ortho-Phosphorous	04/05/02 04052#1	EPA 365.2	0.004	mg-P/L	0.015
Sulfate	04/05/02 04052#1	EPA 300.0	0.1	mg/L	9.7
Chemical Oxygen Demand	04/17/02 04172#1	EPA 410.4	5.0	mg/L	< 5.0 U
Total Coliform	04/05/02 04052#1	SM 9222 B	1	CFU/100 mL	< 1 U

Total Coliform analysis performed by membrane filtration technique.

RL Analytical reporting limit
U Undetected at reported detection limit

Report for EG28 received 04/04/02

ANALYTICAL RESOURCES INCORPORATED

QA Report - Replicate Analysis

Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

Data Release Authorized:
Reported: 05/06/02

DUPLICATE ANALYSIS RESULTS
CONVENTIONALS

Constituent	Units	Sample Value	Duplicate Value	RPD
ARI ID: 02-4189, EG28 A	**Client Sample ID: B-1**			
Alkalinity	mg/L CaCO3	5.5	4.6	17.8%
Hexavalent Chrome	mg/L	< 0.010 U	< 0.010 U	NA
Total Dissolved Solids	mg/L	50	50	0.0%
Fluoride	mg/L	< 0.1 U	< 0.1 U	NA
Chloride	mg/L	2.3	2.3	0.0%
Total Cyanide	mg/L	< 0.005 U	< 0.005 U	NA
N-Ammonia	mg-N/L	< 0.010 U	< 0.010 U	NA
N-Nitrate	mg-N/L	2.2	2.4	8.7%
N-Nitrite	mg-N/L	< 0.1 U	< 0.1 U	NA
Total Kjeldahl Nitrogen	mg-N/L	< 0.5 U	< 0.5 U	NA
Total Phosphorous	mg-P/L	0.021	0.018	15.4%
Ortho-Phosphorous	mg-P/L	0.011	0.011	0.0%
Sulfate	mg/L	4.5	4.4	2.2%
Chemical Oxygen Demand	mg/L	< 5.0 U	< 5.0 U	NA

ANALYTICAL RESOURCES INCORPORATED

QA Report - Matrix Spike/Matrix Spike Duplicate Analysis

Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

Data Release Authorized:
Reported: 05/06/02

MATRIX SPIKE QA/QC REPORT
CONVENTIONALS

Constituent	Units	Sample Value	Spike Value	Spike Added	Recovery
ARI ID: 02-4189, EG28 A Client Sample ID: B-1					
Hexavalent Chrome	mg/L	< 0.010	0.600	0.620	96.8%
Fluoride	mg/L	< 0.1	2.0	2.0	102%
Chloride	mg/L	2.3	4.2	2.0	95.0%
Total Cyanide	mg/L	< 0.005	0.152	0.145	105%
N-Ammonia	mg-N/L	< 0.010	0.424	0.400	106%
N-Nitrate	mg-N/L	2.2	4.6	2.0	119%
N-Nitrite	mg-N/L	< 0.1	2.0	2.0	101%
Total Kjeldahl Nitrogen	mg-N/L	< 0.50	13.9	15.0	92.7%
Total Phosphorous	mg-P/L	0.021	0.411	0.417	93.5%
Ortho-Phosphorous	mg-P/L	0.011	0.205	0.200	97.0%
Sulfate	mg/L	4.5	6.8	2.0	115%
Chemical Oxygen Demand	mg/L	< 5.00	42.2	40.0	106%

MS/MSD Recovery Limits: 75 - 125 %

ANALYTICAL RESOURCES INCORPORATED

QA Report - Laboratory Control Samples

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: NA

Data Release Authorized:
Reported: 05/06/02

LABORATORY CONTROL SAMPLES
CONVENTIONALS

Constituent	Units	Measured Value	True Value	Recovery
Laboratory Control Sample				
Alkalinity	mg/L CaCO3	116	118	98.3%
Date analyzed: 04/16/02 Batch ID: 04162#1				
Laboratory Control Sample				
Total Cyanide	mg/L	0.098	0.100	98.0%
Date analyzed: 04/11/02 Batch ID: 04112#1				

ANALYTICAL RESOURCES INCORPORATED

QA Report - Standard Reference Material Analysis

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: NA

Data Release Authorized:
Reported: 05/06/02

STANDARD REFERENCE MATERIAL ANALYSIS
CONVENTIONALS

Constituent	Units	Value	True Value	Recovery
ERA #47100.1				
Hexavalent Chrome	mg/L	0.540	0.560	96.4%
Date analyzed: 04/06/02	Batch ID: 04062#1			
SPEX #21-61AS				
Fluoride	mg/L	3.0	3.0	100%
Date analyzed: 04/05/02	Batch ID: 04052#1			
ERA #12081				
Chloride	mg/L	2.9	3.0	96.7%
Date analyzed: 04/05/02	Batch ID: 04052#1			
SPEX #21-9AS				
Total Cyanide	mg/L	0.114	0.160	71.2%
Date analyzed: 04/11/02	Batch ID: 04112#1			
SPEX #20-22AS				
N-Ammonia	mg-N/L	0.760	0.800	95.0%
Date analyzed: 04/17/02	Batch ID: 04172#1			
SPEX #18-126AS-Y				
N-Nitrate	mg-N/L	3.1	3.0	103%
Date analyzed: 04/05/02	Batch ID: 04052#1			
SPEX #19-89AS				
N-Nitrite	mg-N/L	3.1	3.0	103%
Date analyzed: 04/05/02	Batch ID: 04052#1			
ERA #0206-02-02				
Total Kjeldahl Nitrogen	mg-N/L	14.8	12.5	118%
Date analyzed: 04/19/02	Batch ID: 04192#1			
SPEX #6-26NUT-2				
Total Phosphorous	mg-P/L	5.11	5.00	102%
Date analyzed: 04/17/02	Batch ID: 04172#1			

ANALYTICAL RESOURCES INCORPORATED

QA Report - Standard Reference Material Analysis

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: NA

Data Release Authorized:
Reported: 05/06/02

STANDARD REFERENCE MATERIAL ANALYSIS
CONVENTIONALS

Constituent	Units	Value	True Value	Recovery
SPEX #20-122AS				
Ortho-Phosphorous	mg-P/L	0.120	0.120	100%
Date analyzed: 04/05/02	Batch ID: 04052#1			
SPEX #20-25AS				
Sulfate	mg/L	3.3	3.0	110%
Date analyzed: 04/05/02	Batch ID: 04052#1			
ERA #0206-02-02				
Chemical Oxygen Demand	mg/L	95.2	90.0	106%
Date analyzed: 04/17/02	Batch ID: 04172#1			

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET **Sample No: Method Blank**
TOTAL METALS

Lab Sample ID: EG28MB
LIMS ID: 02-4189
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: NA
Date Received: NA

Data Release Authorized:
Reported: 04/17/02

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ug/L
3010A	04/11/02	6010B	04/16/02	7440-38-2	Arsenic	50	50 U
3010A	04/11/02	6010B	04/16/02	7440-43-9	Cadmium	2	2 U
3010A	04/11/02	6010B	04/16/02	7440-70-2	Calcium	50	50 U
3010A	04/11/02	6010B	04/16/02	7440-47-3	Chromium	5	5 U
3010A	04/11/02	6010B	04/16/02	7440-50-8	Copper	2	2 U
3010A	04/11/02	6010B	04/16/02	7439-89-6	Iron	50	50 U
3020A	04/11/02	7421	04/15/02	7439-92-1	Lead	1	1 U
3010A	04/11/02	6010B	04/16/02	7439-95-4	Magnesium	50	50 U
3010A	04/11/02	6010B	04/16/02	7439-96-5	Manganese	1	1 U
470	04/11/02	7470A	04/12/02	7439-97-6	Mercury	0.1	0.1 U
3010A	04/11/02	6010B	04/16/02	7440-02-0	Nickel	10	10 U
7740	04/11/02	7740	04/12/02	7782-49-2	Selenium	2	2 U
3020A	04/11/02	7761	04/16/02	7440-22-4	Silver	0.2	0.2 U
3010A	04/11/02	6010B	04/16/02	7440-23-5	Sodium	50	50 U
3010A	04/11/02	6010B	04/16/02	7440-66-6	Zinc	6	6 U

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET **Sample No: B-1**
TOTAL METALS

Lab Sample ID: EG28A
LIMS ID: 02-4189
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Data Release Authorized:
Reported: 04/17/02

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ug/L
3010A	04/11/02	6010B	04/16/02	7440-38-2	Arsenic	50	50 U
3010A	04/11/02	6010B	04/16/02	7440-43-9	Cadmium	2	2 U
3010A	04/11/02	6010B	04/16/02	7440-70-2	Calcium	50	4,060
3010A	04/11/02	6010B	04/16/02	7440-47-3	Chromium	5	52
3010A	04/11/02	6010B	04/16/02	7440-50-8	Copper	2	4
3010A	04/11/02	6010B	04/16/02	7439-89-6	Iron	50	1,050
3020A	04/11/02	7421	04/15/02	7439-92-1	Lead	1	1 U
3010A	04/11/02	6010B	04/16/02	7439-95-4	Magnesium	50	1,390
3010A	04/11/02	6010B	04/16/02	7439-96-5	Manganese	1	18
7470	04/11/02	7470A	04/12/02	7439-97-6	Mercury	0.1	0.1 U
3010A	04/11/02	6010B	04/16/02	7440-02-0	Nickel	10	30
7740	04/11/02	7740	04/12/02	7782-49-2	Selenium	2	2 U
3020A	04/11/02	7761	04/16/02	7440-22-4	Silver	0.2	0.2 U
3010A	04/11/02	6010B	04/16/02	7440-23-5	Sodium	50	3,290
3010A	04/11/02	6010B	04/16/02	7440-66-6	Zinc	6	15

Calculated Hardness (mg-CaCO3/L): 16

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET **Sample No: B-2**
TOTAL METALS

Lab Sample ID: EG28B
LIMS ID: 02-4190
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Data Release Authorized:
Reported: 04/17/02

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ug/L
3010A	04/11/02	6010B	04/16/02	7440-38-2	Arsenic	50	50 U
3010A	04/11/02	6010B	04/16/02	7440-43-9	Cadmium	2	2 U
3010A	04/11/02	6010B	04/16/02	7440-70-2	Calcium	50	6,600
3010A	04/11/02	6010B	04/16/02	7440-47-3	Chromium	5	71
3010A	04/11/02	6010B	04/16/02	7440-50-8	Copper	2	13
3010A	04/11/02	6010B	04/16/02	7439-89-6	Iron	50	7,700
3020A	04/11/02	7421	04/15/02	7439-92-1	Lead	1	1 U
3010A	04/11/02	6010B	04/16/02	7439-95-4	Magnesium	50	4,660
3010A	04/11/02	6010B	04/16/02	7439-96-5	Manganese	1	410
7470	04/11/02	7470A	04/12/02	7439-97-6	Mercury	0.1	0.1 U
3010A	04/11/02	6010B	04/16/02	7440-02-0	Nickel	10	50
7740	04/11/02	7740	04/12/02	7782-49-2	Selenium	2	2 U
3020A	04/11/02	7761	04/16/02	7440-22-4	Silver	0.2	0.2 U
3010A	04/11/02	6010B	04/16/02	7440-23-5	Sodium	50	4,050
3010A	04/11/02	6010B	04/16/02	7440-66-6	Zinc	6	30

Calculated Hardness (mg-CaCO3/L): 36

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample No: B-3

Lab Sample ID: EG28C
LIMS ID: 02-4191
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Data Release Authorized:
Reported: 04/17/02

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ug/L
3010A	04/11/02	6010B	04/16/02	7440-38-2	Arsenic	50	50 U
3010A	04/11/02	6010B	04/16/02	7440-43-9	Cadmium	2	2 U
3010A	04/11/02	6010B	04/16/02	7440-70-2	Calcium	50	3,100
3010A	04/11/02	6010B	04/16/02	7440-47-3	Chromium	5	34
3010A	04/11/02	6010B	04/16/02	7440-50-8	Copper	2	4
3010A	04/11/02	6010B	04/16/02	7439-89-6	Iron	50	1,240
3020A	04/11/02	7421	04/15/02	7439-92-1	Lead	1	1 U
3010A	04/11/02	6010B	04/16/02	7439-95-4	Magnesium	50	1,370
3010A	04/11/02	6010B	04/16/02	7439-96-5	Manganese	1	19
7470	04/11/02	7470A	04/12/02	7439-97-6	Mercury	0.1	0.1 U
3010A	04/11/02	6010B	04/16/02	7440-02-0	Nickel	10	20
7740	04/11/02	7740	04/12/02	7782-49-2	Selenium	2	2 U
3020A	04/11/02	7761	04/16/02	7440-22-4	Silver	0.2	0.2 U
3010A	04/11/02	6010B	04/16/02	7440-23-5	Sodium	50	2,900
3010A	04/11/02	6010B	04/16/02	7440-66-6	Zinc	6	11

Calculated Hardness (mg-CaCO3/L): 13

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

METALS ANALYSIS DATA SHEET
TOTAL METALS

Sample No: B-1
Lab Sample ID: EG28LCS
QC Report No: EG28-Parametrix, Inc.
LIMS ID: 02-4189
Project: Tulalip Tribes
Matrix: Water
216-1598-012
Date Received: 04/04/02

Data Release Authorized:
Reported: 04/17/02

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Spike ug/L	Spike Added	% Recovery	Q
Arsenic	1820	2000	91.0%	
Cadmium	453	500	90.6%	
Calcium	9840	10000	98.4%	
Chromium	486	500	97.2%	
Copper	504	500	101%	
Iron	1850	2000	92.5%	
Lead	87.0	100	87.0%	
Magnesium	9560	10000	95.6%	
Manganese	465	500	93.0%	
Mercury	2.20	2.00	110%	
Nickel	470	500	94.0%	
Selenium	90.0	100	90.0%	
Silver	18.0	20.0	90.0%	
Sodium	9640	10000	96.4%	
Zinc	461	500	92.2%	

'Q' codes: N = control limit not met

Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample No: Method Blank

Lab Sample ID: EG28MB
LIMS ID: 02-4193
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: NA
Date Received: NA

Data Release Authorized:
Reported: 04/17/02

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ug/L
200.8	04/11/02	200.8	04/12/02	7440-50-8	Copper	0.1	0.4
200.8	04/11/02	200.8	04/12/02	7439-92-1	Lead	0.2	0.2 U
200.8	04/11/02	200.8	04/12/02	7440-66-6	Zinc	0.8	0.8 U

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET **Sample No: B-1**
DISSOLVED METALS

Lab Sample ID: EG28E
LIMS ID: 02-4193
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Data Release Authorized:
Reported: 04/17/02

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ug/L
200.8	04/11/02	200.8	04/12/02	7440-50-8	Copper	0.1	0.2
200.8	04/11/02	200.8	04/12/02	7439-92-1	Lead	0.2	0.2 U
200.8	04/11/02	200.8	04/12/02	7440-66-6	Zinc	0.8	1.9

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample No: B-2

Lab Sample ID: EG28F
LIMS ID: 02-4194
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Data Release Authorized:
Reported: 04/17/02

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ug/L
200.8	04/11/02	200.8	04/12/02	7440-50-8	Copper	0.1	0.6
200.8	04/11/02	200.8	04/12/02	7439-92-1	Lead	0.2	0.2 U
200.8	04/11/02	200.8	04/12/02	7440-66-6	Zinc	0.8	4.6

U Analyte undetected at given RL

RL Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET **Sample No: B-3**
DISSOLVED METALS

Lab Sample ID: EG28G
LIMS ID: 02-4195
Matrix: Water

QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Sampled: 04/04/02
Date Received: 04/04/02

Data Release Authorized
Reported: 04/17/02

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ug/L
200.8	04/11/02	200.8	04/12/02	7440-50-8	Copper	0.1	0.3
200.8	04/11/02	200.8	04/12/02	7439-92-1	Lead	0.2	0.2 U
200.8	04/11/02	200.8	04/12/02	7440-66-6	Zinc	0.8	1.6

U Analyte undetected at given RL

RL Reporting Limit

METALS ANALYSIS DATA SHEET
DISSOLVED METALS

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: EG28LCS
LIMS ID: 02-4193
Matrix: Water

Data Release Authorized:
Reported: 04/17/02

Sample No: B-1
QC Report No: EG28-Parametrix, Inc.
Project: Tulalip Tribes
216-1598-012
Date Received: 04/04/02

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Spike ug/L	Spike Added	% Recovery	Q
Copper	5.4	5.0	108%	
Lead	5.3	5.0	106%	
Zinc	15.6	16.0	97.5%	

'Q' codes: N = control limit not met

Control Limits: 80-120%

AMTEST LABORATORIES

AmTest Inc.

14603 N.E. 87th St.
Redmond, WA
98052

Tel: 425 885 1664

Fax: 425 883 3495

May 6 2002

Analytical Resources, Inc
4611 South 134Th Place
Suite 100
Tukwila, WA 98168
Attention: Staphanie Lucas

Dear Staphanie Lucas:

Enclosed please find the analytical data for your EH59 project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AM TEST ID	TEST
EH59A MW-1	Water	02-A005314	CONV,
EH59B MW-2	Water	02-A005315	CONV,
EH59C MW-3	Water	02-A005316	CONV,
EH59D MW-4	Water	02-A005317	CONV,
B-1	Water	02-A005318	CONV,
B-2	Water	02-A005319	CONV,
B-3	Water	02-A005320	CONV,

Your seven (7) samples were received on Wednesday, May 1 2002. At the time of receipt, the samples were logged in and properly maintained prior to their subsequent analyses.

The analytical procedures used at Am Test are well documented, and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the QC results and "Methodology Report". This table includes information relative to the detection limits, analyses dates and method references.

Please note that the detection limits that are listed in the body of the report refer to the Method Detection Limits (MDL's), as opposed to Practical Quantitation Limits (PQL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,

Kathy Fugiel
Director of Inorganic Laboratory

BACT = Bacteriological
CONV = Conventionals
MET = Metals
ORG = Organics

AMTEST

ANALYSIS REPORT

Analytical Resources, Inc
4611 South 134Th Place
Suite 100
Tukwila, WA 98168
Attention: Mark Harris

Date Received: 5/ 1/02
Date Reported: 5/ 6/02

Project Name: EG28
Date Sampled: 4/ 4/02

Water Samples

PARAMETER	UNITS	RESULT
02-A005318		
Client ID: B-1		
Date Sampled: 4/ 4/02, 13:20		
Total Organic Carbon	mg/l	1.6
02-A005319		
Client ID: B-2		
Date Sampled: 4/ 4/02, 15:05		
Total Organic Carbon	mg/l	2.3
02-A005320		
Client ID: B-3		
Date Sampled: 4/ 4/02, 11:00		
Total Organic Carbon	mg/l	< 1

Reported by: Kathy Fugiel

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila WA 98168
206-695-6200 206-695-6201 (fax)

Chain of Custody Record & Laboratory Analysis Request

Turn Around Requested: _____

Report to: MARK HARRIS	Proj Name:				Analyses Requested										Notes/Comments
Company: ARI	Proj Number:														
Address:	Sampler:														
Phone: 206/957-7129	Shipping Method:				TOC										
Fax:	AirBill:														
Sample ID	Sample Date	Sample Time	Sample Matrix	No Containers											EG28
1318 B-1	4/4/02	1320	W	1	✓										
19 B-2	↓	1505	↓	1	✓										SEE
20 B-3	↓	1100	↓	1	✓										TIFFANY

Relinquished: (Signature) Eric Branson	Received by: (Signature) N B	Special Instructions/Notes HT UP 5/2/02?	
Printed name: ERIC BRANSON	Printed name: Neila Glidden		
Company: ARI	Company: AmTest		Number of Coolers:
			Cooler Temp(s):
Date: 5/1/02 Time: 1025	Date: 5/1/02 Time: 10:30		COC Seals Intact?
			Bottles Intact?

Limits of Liability: Analytical Resources, Inc. (ARI) will perform all requested services in accordance with appropriate methodology follow ARI Standard Operating Procedures and Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the client.

Please sign here if you would like these samples disposed of after expiration of standard archive times (60 days for waters 90 days for soils, sediments per contract). If you do not want these samples discarded we will begin charging you for storage after the disposal date. **Samples to be discarded after expiration:**

AMTEST

Quality Control Summary

QC for 233735

02-A005314
02-A005315
02-A005316
02-A005317
02-A005318
02-A005319
02-A005320

DUPLICATES			sample value	duplicate value	RPD %	
02-A005116	DUP: Total Organic Carbon	mg/l	15.	13.	14.	
02-A005125	DUP: Total Organic Carbon	mg/l	< 1	< 1		
02-A005136	DUP: Total Organic Carbon	mg/l	21.	26.	21.	
02-A005145	DUP: Total Organic Carbon	mg/l	3.6	3.8	5.4	
02-A005124	SPIKE: Total Organic Carbon	mg/l	2.0	34.	30.	107.
02-A005130	SPIKE: Total Organic Carbon	mg/l	5.0	36.	30.	103.
02-A005143	SPIKE: Total Organic Carbon	mg/l	3.3	37.	30.	112.

STANDARD REFERENCE MATERIALS			measured value	true value	Recovery %
Known	SRM: Total Organic Carbon	mg/l	30.	30.	100.
Known	SRM: Total Organic Carbon	mg/l	33.	30.	110.
Known	SRM: Total Organic Carbon	mg/l	32.	30.	107.
Known	SRM: Total Organic Carbon	mg/l	31.	30.	103.

BLANKS			Result
	BLANK: Total Organic Carbon	mg/l	< 1
	BLANK: Total Organic Carbon	mg/l	< 1
	BLANK: Total Organic Carbon	mg/l	< 1
	BLANK: Total Organic Carbon	mg/l	< 1

AMTEST

METHODOLOGY REPORT

AM TEST ID 02-A005314
CLIENT ID EH59A MW-1

MATRIX : Water
SAMPLED: 4/22/02

ANALYTE	UNITS	METHOD NUMBER	METHOD REFERENCE	DETECTION LIMIT *	DATE OF ANALYSIS
Total Organic Carbon	mg/l	415.1	EPA	1.0	5/ 3/02

SM = Standard Methods for the Examination of Water and Wastewater 18th ed.
SW-846 = Test Methods for Evaluating Solid Waste Physical/Chemical Methods
EPA = Methods for Chemical Analysis of Water and Wastes 1983
* Instrument Detection Limit

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RECEIVED
MAY - 8 2002
Ken E.
Parametrix, Inc.
File #

May 2, 2002
Parametrix, Inc.
5808 Lake Washington Blvd. NE, Suite 200
Kirkland, WA 98033

Report Number: 02150
Client Job Number: Tualip Tribes
Sample Matrix: water
Number of Samples: 1

Analytical Report

Ext. Date	Analysis Date	Sample ID	Analyte	Amount Detected	Method Reporting Limit
4/11/02	4/29/02	**B-2**	Organophosphate pesticides	Not detected	see analyte list
Surrogate Recovery		78			
Surr. Recovery Range		67-110			
(EPA 8141A)					
4/11/02	4/19/02	**B-2**	Organochlorine pesticides	Not detected	see analyte list
Surrogate Recovery		94			
Surr. Recovery Range		40-120			
(EPA 80801A)					
4/11/02	4/17/02	**B-2**	Organochlorine herbicides	Not detected	see analyte list
Surrogate Recovery		67			
Surr. Recovery Range		58-134			
(EPA 8151A)					

Stephen Thun
Laboratory Director

12505 N.W. Cornell Road ◆ Portland, Oregon 97229 ◆ (503)626-7943 ◆ FAX (503) 641-0644

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Quality Assurance Report

Extr. Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery
Method Blank Data					
4/11/02	4/19/02	02150 MB	OP pesticides	Not detected	< reporting limits
4/11/02	4/19/02	02150 MB	OC pesticides	Not detected	< reporting limits
4/11/02	4/17/02	02139 MB	OC herbicides	Not detected	< reporting limits
Matrix Spike Data					
4/11/02	4/19/02	02150 LCS	Chlorpyrifos	78	48-153
4/11/02	4/19/02	02150 LCSD	Chlorpyrifos	80	
4/11/02	4/19/02	02150 LCS	g-BHC	85	40-120
			Heptachlor	70	40-120
			Aldrin	64	40-120
			Dieldrin	89	40-120
			Endrin	91	40-120
			4,4'-DDT	106	40-120
4/11/02	4/19/02	02150 LCSD	g-BHC	81	40-120
			Heptachlor	70	40-120
			Aldrin	65	40-120
			Dieldrin	92	40-120
			Endrin	94	40-120
			4,4'-DDT	114	40-120
4/11/02	4/17/02	02139 LCS	2,4-D	73	67-127
4/11/02	4/17/02	02139 LCS	Dicamba	56	43-125
4/11/02	4/17/02	02139 LCSD	2,4-D	63*	67-127
4/11/02	4/17/02	02139 LCSD	Dicamba	50	43-125

* spike recovery was below the lower control warning limit

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Additional Project Information

Methodology Employed

Organophosphate Pesticides in Water	EPA 8141A (GC-FPD)
Organochlorine Pesticides in Water	EPA 8081A (GC-ECD)
Organochlorine Herbicides in Water	EPA 8151A (GC-ECD)

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EPA 8141A Analyte List and Detection Limits

Analyte	Reporting limit
Aspon	0.20 ug/liter (ppb)
Azinphos-methyl	0.20 ug/liter (ppb)
Bolstar (Sulfopros)	0.20 ug/liter (ppb)
Carbofenthion	0.20 ug/liter (ppb)
Chlorfenvinphos	0.20 ug/liter (ppb)
Chlorpyrifos (Reldan)	0.20 ug/liter (ppb)
Chlorpyrifos-methyl	0.20 ug/liter (ppb)
Coumaphos	0.20 ug/liter (ppb)
Demeton-O	0.20 ug/liter (ppb)
Demeton-S	1.0 ug/liter (ppb)
Diazinon	0.20 ug/liter (ppb)
Dichlorfenthion	0.20 ug/liter (ppb)
Dichlorvos (DVVP)	0.20 ug/liter (ppb)
Dicrotophos	0.20 ug/liter (ppb)
Dimethoate	0.20 ug/liter (ppb)
Disulfoton	0.20 ug/liter (ppb)
EPN	0.20 ug/liter (ppb)
Ethion	0.20 ug/liter (ppb)
Ethoprop (Mocap)	0.20 ug/liter (ppb)
Famphur	0.20 ug/liter (ppb)
Fenitrothion	0.20 ug/liter (ppb)
Fensulfothion	0.20 ug/liter (ppb)
Fenthion	0.20 ug/liter (ppb)
Malathion	0.20 ug/liter (ppb)
Mevinphos	0.20 ug/liter (ppb)
Monocrotophos	0.20 ug/liter (ppb)
Naled	1.0 ug/liter (ppb)
Parathion	0.20 ug/liter (ppb)
Parathion-methyl	0.20 ug/liter (ppb)
Phorate	0.20 ug/liter (ppb)
Phosamidon	0.20 ug/liter (ppb)
Tetrachlorvinphos	0.20 ug/liter (ppb)
Terbufos	0.20 ug/liter (ppb)
Trichlorfon	2.0 ug/liter (ppb)

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EPA 8081A Analyte List and Reporting Limits

Analyte	Reporting limit
Aldrin	0.040 ug/liter (ppb)
α-BHC	0.040 ug/liter (ppb)
β-BHC	0.040 ug/liter (ppb)
δ-BHC	0.040 ug/liter (ppb)
γ-BHC (Lindane)	0.040 ug/liter (ppb)
Chlordane	0.40 ug/liter (ppb)
p,p'-DDD	0.040 ug/liter (ppb)
p,p'-DDE	0.040 ug/liter (ppb)
p,p'-DDT	0.040 ug/liter (ppb)
Dieldrin	0.040 ug/liter (ppb)
Endosulfan I(Thiodan)	0.040 ug/liter (ppb)
Endosulfan II	0.040 ug/liter (ppb)
Endosulfan sulfate	0.040 ug/liter (ppb)
Endrin	0.040 ug/liter (ppb)
Endrin aldehyde	0.040 ug/liter (ppb)
Heptachlor	0.040 ug/liter (ppb)
Heptachlor epoxide	0.040 ug/liter (ppb)
Methoxychlor	0.040 ug/liter (ppb)
Toxaphene	2.0 ug/liter (ppb)

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EPA 8151A Analyte List and Reporting Limits

Analyte	Reporting limit
2,4-D	0.20 ug/liter (ppb)
2,4-DB	0.20 ug/liter (ppb)
2,4,5-T	0.080 ug/liter (ppb)
2,4,5-TP (Silvex)	0.080 ug/liter (ppb)
Acifluorfen	0.20 ug/liter (ppb)
Bentazone	0.40 ug/liter (ppb)
Clopyralid (Stinger)	0.080 ug/liter (ppb)
Dicamba (Banvel)	0.080 ug/liter (ppb)
Dichlorprop	0.20 ug/liter (ppb)
Dinoseb (Dinitro)	0.40 ug/liter (ppb)
MCPA	20 ug/liter (ppb)
MCPP	20 ug/liter (ppb)
Pentachlorophenol	0.080 ug/liter (ppb)
Picloram (Tordon)	0.20 ug/liter (ppb)
Triclopyr (Garlon)	0.080 ug/liter (ppb)

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ANALYTICAL REQUEST / CHAIN OF CUSTODY FORM

Pacific Agricultural Laboratory
12505 N.W. Cornell Road
Portland, Oregon 97229
Phone (503) 626-7943 Fax (503) 641-0644

02 150

Company Name: Parametrix, Inc
Customer Contact: Ron Simmons
Telephone No.: (425) 822-8880
Fax No.: (425) 881-8808

Address: 5808 Lk Washington Blvd NE, Suite 200
City, State, ZIP: Kirkland WA 98033
Method of Shipment: FedEx overnight

Tulalip Tribes 216-1598-012

Requested Analysis

Requested Turnaround Time
- [x] Standard (5-10 working days)
- [ ] Rush _____ please specify

PAL I.D.	Client Sample Identification	Date Taken	Time Taken	Sample Type	Container Type	No. of Containers	SW 8081A	SW 8141A	SW 8151A				Comments
	B-2	4/4/02	1505	water	1L AG	3	1	1	1				One bottle for each of three methods.
													Please use attached parameter list & DL:

		Date	Time			Date	Time
Relinquished By: (signature)	Ronald A. Simmons	4/9/02	1600	Received By: (signature)	Camille Holladay	4/10/02	1010
Relinquished By: (signature)				Received By: (signature)			
Relinquished By: (signature)				Received By: (signature)			

Lab Comments: