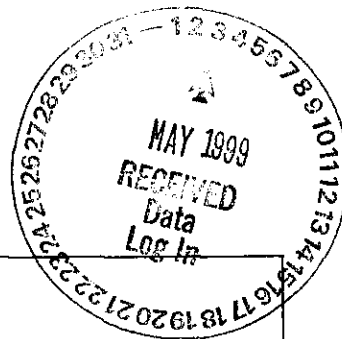


0060807

DATA DELIVERABLE COVER SHEET



Data Deliverable Cover Sheet

Date: Monday, May 03, 1999

Deliverable type (check one): Preliminary Test Results
 Final Data Deliverable

FS0218

Sample authorization form number: C99-028

Attachments (check all that apply or n/a): Narrative Summary
 Test Results
 Chains of Custody
 Logbook Pages

Total number of pages (including cover sheet): 26 pages

Comments:

(Note: If Preliminary results were provided verbally, document information provided below including instrument used and results as communicated to the project.)

RECEIVED
NOV 24 2003

EDMC

M.G. Baehler
Analyst Signature

5/3/99
Date

Distribution: Sample Management – Doris Ayres B1-35
Project (specify): None, Distributed Electronically
DIS

Requires distribution to listed project personnel by Sample Management.

**200-ZP-1 Groundwater
Field Screening Results
Final Data Deliverable
SAF C99-028**

<i>Well Number</i>	<i>HEIS Number</i>	<i>Date Sampled</i>	<i>Time Sampled</i>	<i>Sampler Initials</i>	<i>Analysis Date</i>	<i>Chloroform (ug/L)</i>	<i>CCl4 (ug/L)</i>	<i>TCE (ug/L)</i>	<i>Comments</i>
299-W15-15	B0V2D7	04/14/99	13:05	MCD	04/28/99	<2.0	340	<2.0	
299-W15-11	B0V2D8	04/14/99	9:12	MCD	04/28/99	20	2800	4.4	
299-W15-7	B0V2C2	04/14/99	10:49	MCD	04/28/99	33	3600	31	
699-39-79	B0V2F3	04/15/99	10:33	AGR	04/29/99	<2.0	<2.0	<2.0	
699-51-63	B0V2F1	04/20/99	13:22	RTS	04/29/99	<2.0	<2.0	<2.0	
699-47-60	B0V2C9	04/21/99	11:21	AGR	04/29/99	<2.0	<2.0	<2.0	
299-W14-9	B0V2D1	04/22/99	8:45	AGR	04/29/99	138	36	5.7	
299-W11-30	B0V2D2	04/21/99	13:45	RTS	04/29/99	54	570	17	
299-W18-21	B0V2F6	04/20/99	13:14	AGR	04/29/99	<2.0	200	<2.0	
299-W18-4	B0V2C7	04/27/99	9:08	AGR	04/29/99	47	290	<2.0	
299-W18-4	B0V2C8	04/27/99	9:08	AGR	04/29/99	47	290	<2.0	
299-W18-27	B0V2F4	04/22/99	11:58	AGR	04/29/99	<2.0	380	<2.0	
299-W15-4	B0V2C1	04/15/99	13:27	AGR	04/29/99	4.9	430	<2.0	
299-W18-30	B0V2C6	04/22/99	11:11	AGR	04/29/99	12	430	<2.0	
299-W18-1	B0V2C3	04/15/99	12:17	AGR	04/29/99	10	1400	<2.0	
299-W15-39	B0V2D0	04/26/99	11:38	RTS	04/29/99	16	1300	<2.0	
299-W18-24	B0V2C5	04/22/99	12:34	AGR	04/29/99	11	1100	<2.0	
299-W15-38	B0V2D3	04/26/99	12:24	RTS	04/29/99	30	3300	4.4	
299-W15-16	B0V2D6	04/21/99	10:10	RTS	04/29/99	33	5500	6.0	
299-W15-31A	B0V2D4	04/26/99	13:49	RTS	04/29/99	43	6500	8.0	
299-W15-1	B0V2D9	04/20/99	9:24	AGR	04/29/99	31	6200	17	
299-W15-1	B0V2F0	04/20/99	9:24	AGR	04/29/99	32	6500	18	

M.A. Baechler, AFS, M.G. Baechler

200-ZP-1 Groundwater Daily Activity Log (Logbook EL-1329)

Date: 4/29/99

0635	M. A. Baechler arrived on-site at laboratory trailer located at 200-ZP-1 to analyze 200-ZP-1 groundwater VOA samples. Turned on HP 5890 S/N 3235A47685 gas chromatograph and HP 7694 headspace autosampler S/N 3617101945. Loaded methods HSECFID.MTH (HP 5890) and HSECFID.HSM (HP 7694).
0642	Split flow = 39.9 mL/min. Septum purge = 3.23 mL/min.
0644	Prepared new warm-up standards of 5 and 10 ug/L, revised, and started sample sequence "Z042999.S"
0646	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 ug/L.
0702	Prepared 200-ZP-1 GW samples for analysis. Transferred 10 mL of each sample to clean 20 mL HP vial using a pipette.
0742	Started calibration of HP 5890 gas chromatograph.
0837	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
0855	Prepared calibration check standard of 100 ug/L.
0910	100 ug/L calibration check: DCM = 102 (102 %), TCM = 100 (100 %), CCl ₄ = 89 (89 %), TCE = 92 (92 %), PCE = 87 (87 %). Acceptable recoveries.
0954	Started analysis of groundwater samples.
1310	Prepared calibration check standard of 3000 ug/L.
1341	Completed analysis of groundwater samples.
1308	Autosampler skipped sample vial #35. Rearranged run sequence to accommodate.
1324	3000 ug/L calibration check: DCM = 2985 (100 %), TCM = 2932 (98 %), CCl ₄ = 2569 (86 %), TCE = 2783 (93 %), PCE = 2682 (89 %). Acceptable recoveries.
1430	Loaded standby method, shut down equipment, left site.

M.A. Baechler 5/3/99

~~MBB 5/3/99~~

M.A. Baechler / M.G. Baechler

ECT 200-ZP-1 Groundwater IAM
 N.A. Baechler, AFS, M.G. Baechler

MOBILE LABORATORY DATA/LOG SHEET (Logbook EL-1359)

Site Name: 200-ZP-1 Groundwater

Date: 4/29/99

Sample Number	HEIS Number	Sample Time	Sample Type	Sampler (Initials)	Analysis Time	Analytical Results			Comments
						TCM ug/L	CCl4 ug/L	TCE ug/L	
DI Blank	---	0635	Water	MAB	0859	< 2.0	< 2.0	< 2.0	hs012.d
100 ug/L Cal. check	---	0855	Water	MAB	0910	100 100%	89 89%	92 92%	hs013.d; Acceptable recovery.
DI Blank	---	0635	Water	MAB	0921	< 2.0	< 2.0	< 2.0	hs014.d
699-39-79	B0V2F3	10:33	Water	MAB	0954	< 2.0	< 2.0	< 2.0	hs017.d; 04/15/99
699-51-63	B0V2F1	13:22	Water	MAB	1005	< 2.0	< 2.0	< 2.0	hs018.d; 04/20/99
699-47-60	B0V2C9	11:21	Water	MAB	1016	< 2.0	< 2.0	< 2.0	hs019.d; 04/21/99
299-W14-9	B0V2D1	08:45	Water	MAB	1027	138	36	5.7	hs020.d; 04/22/99
299-W11-30	B0V2D2	13:45	Water	MAB	1038	54	574	17	hs021.d; 04/21/99
299-W18-21	B0V2F6	13:14	Water	MAB	1049	< 2.0	198	< 2.0	hs022.d; 04/20/99
299-W18-4	B0V2C7	09:08	Water	MAB	1100	47	285	< 2.0	hs023.d; 04/27/99
299-W18-4	B0V2C8	09:08	Water	MAB	1111	47	285	< 2.0	hs024.d; 04/27/99
299-W18-27	B0V2F4	11:58	Water	MAB	1122	< 2.0	377	< 2.0	hs025.d; 04/22/99
299-W15-4	B0V2C1	13:27	Water	MAB	1134	4.9	425	< 2.0	hs026.d; 04/15/99
299-W18-30	B0V2C6	11:11	Water	MAB	1145	12	433	< 2.0	hs027.d; 04/22/99
299-W18-1	B0V2C3	12:17	Water	MAB	1156	10	1436	< 2.0	hs028.d; 04/15/99
299-W15-39	B0V2D0	11:38	Water	MAB	1207	16	1261	< 2.0	hs029.d; 04/26/99
299-W18-24	B0V2C5	12:34	Water	MAB	1218	11	1147	< 2.0	hs030.d; 04/22/99
299-W15-38	B0V2D3	12:24	Water	MAB	1229	30	3295	4.4	hs031.d; 04/26/99
299-W15-16	B0V2D6	10:10	Water	MAB	1240	33	5540	6.0	hs032.d; 04/21/99
299-W15-31A	B0V2D4	13:49	Water	MAB	1251	43	6456	8.0	hs033.d; 04/26/99
299-W15-1	B0V2D9	09:24	Water	MAB	1302	31	6199	17	hs034.d; 04/20/99
DI Blank	---	0635	Water	MAB	1313	< 2.0	< 2.0	< 2.0	hs035.d
3000ug/L Cal. check	---	1310	Water	MAB	1324	2932 98%	2569 86%	2783 93%	hs037.d; Acceptable recovery.
299-W15-1	B0V2F0	09:24	Water	MAB	1341	32	6450	18	hs038.d; 04/20/99
DI Blank	---	0635	Water	MAB	1352	< 2.0	< 2.0	< 2.0	hs039.d

For instrument operation information, please refer to logbook EL-1329-1, page 110

M.A. Baechler 5/3/99

MAB 5/3/99

Continued on Page N/A

Baechler
 Baechler

5/3/99

Read and Understood By

Signed

Date

Signed

Date

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # C99-028-41
		Page 1 of 1

Collector AG RIZZO	Contact/Requester JH KESSNER	Telephone No. (509) 375-4688
SAF No. C99-028	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title 200ZPIAM GW MONITORING, APRIL 1999	Logbook No. WV-514L H 22, PAGE 67	Ice Chest No. N/A Temp. cool 4°C
Shipped To (Lab) Mobile Field Laboratory	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol CERCLA	Data Turnaround Field	Offsite Property No. N/A

POSSIBLE SAMPLE HAZARDS/REMARKS ** **	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B0V2F3		W	4-15-99	1033	1x40-mL aGs*	VOA BY FIELD GC - Chlorinated Hydrocarbon	HCl to pH <2 Cool 4C

Relinquished By AG RIZZO	Date/Time 4/20/99 0730	Received By M.A. Baehler	Date/Time 4/20/99 0730	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Shudce WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process) Returned to project		Disposed By M.A. Baehler	Date/Time 4/20/99 1340

DATA DELIVERABLE COVER SHEET

Data Deliverable Cover Sheet

Date: Wednesday, May 19, 1999

Deliverable type (check one): Preliminary Test Results
 Final Data Deliverable

Sample authorization form number: C99-028

Attachments (check all that apply or n/a): Narrative Summary
 Test Results
 Chains of Custody
 Logbook Pages

Total number of pages (including cover sheet): 5 pages

Comments:

(Note: If Preliminary results were provided verbally, document information provided below including instrument used and results as communicated to the project.)

M.C. Baehler
Analyst Signature

5/19/99
Date



Distribution: Sample Management – Doris Ayres B1-35
Project (specify): None, Distributed Electronically
DIS

Requires distribution to listed project personnel by Sample Management.

**200-ZP-1 Groundwater
Field Screening Results
Final Data Deliverable
SAF C99-028**

<i>Well Number</i>	<i>HEIS Number</i>	<i>Date Sampled</i>	<i>Time Sampled</i>	<i>Sampler Initials</i>	<i>Analysis Date</i>	<i>Chloroform (ug/L)</i>	<i>CCl4 (ug/L)</i>	<i>TCE (ug/L)</i>	<i>Comments</i>
299-W15-18	B0V2D5	05/17/99	13:13	RTS	05/19/99	5.5	1100	<2.0	



34-2
N/A

PROJECT 200-ZP-1 Groundwater IAM
M.A. Baechler, AFS, M.G. Baechler

Notebook No. EL-1354-2
Contract No. N/A

MOBILE LABORATORY DATA/LOG SHEET (Logbook EL-1359)

Date: 5/13/99

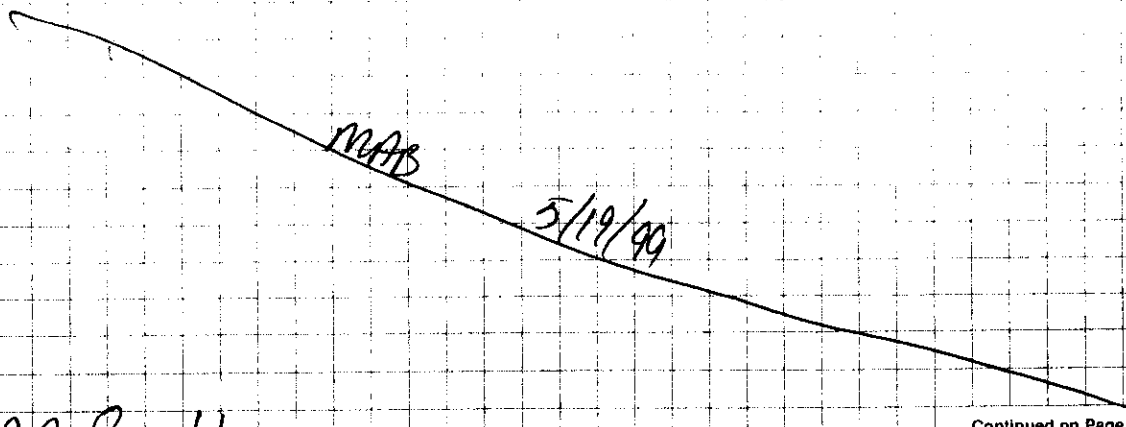
Site Name: 200-ZP-1 Groundwater

Date: 5/19/99

Sample Number	HEIS Number	Sample Time	Sample Type	Sampler (Initials)	Analysis Time	Analytical Results			Comments
						TCM ug/L	CCl4 ug/L	TCE ug/L	
DI Blank	---	0845	Water	MAB	1114	<2.0	<2.0	<2.0	hs012.d
100 ug/L Cal. check	---	1100	Water	MAB	1125	102 102%	106 106%	98 98%	hs013.d; Acceptable recovery.
DI Blank	---	0845	Water	MAB	1136	<2.0	<2.0	<2.0	hs014.d
299-W15-18	BOV2D5	13:13	Water	MAB	1209	5.5	1087	<2.0	hs017.d; 05/17/99
DI Blank	---	0845	Water	MAB	1220	<2.0	<2.0	<2.0	hs018.d
3000ug/L Cal. check	---	1210	Water	MAB	1231	2840 95%	2421 81%	2637 88%	hs019.d; Acceptable recovery.
DI Blank	---	0845	Water	MAB	1242	<2.0	<2.0	<2.0	hs020.d

For instrument operation information, please refer to logbook EL-1329-1, page 115

M.A. Baechler 5/19/99



Continued on Page N/A

Continued on Page N/A

M.A. Baechler
M.G. Baechler

5/19/99

Read and Understood By

Date

Signed

Date

Signed

Date

M.C. Baechler, AFS, M.A. Baechler

**200-ZP-1 Groundwater Daily Activity Log
(Logbook EL-1329)**

Date: 5/19/99

0845	M. A. Baechler arrived on-site at laboratory trailer located at 200-ZP-1 to analyze 200-ZP-1 groundwater VOA samples. Turned on HP 5890 S/N 3235A47685 gas chromatograph and HP 7694 headspace autosampler S/N 3617101945. Loaded methods HSECFID.MTH (HP 5890) and HSECFID.HSM (HP 7694).
0853	Split flow = 39.8 mL/min. Septum purge = 3.00 mL/min.
0855	Prepared new warm-up standards of 5 and 10 ug/L, revised, and started sample sequence "Z051999.S"
0857	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 ug/L.
0900	Prepared 200-ZP-1 GW sample for analysis. Transferred 10 mL of sample to clean 20 mL HP vial using a pipette.
0956	Started calibration of HP 5890 gas chromatograph.
1052	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
1100	Prepared calibration check standard of 100 ug/L.
1125	100 ug/L calibration check: DCM = 100 (100 %), TCM = 102 (102 %), CCl ₄ = 106 (106 %), TCE = 98 (98 %), PCE = 97 (97 %). Acceptable recoveries.
1209	Started analysis of groundwater samples.
1210	Prepared calibration check standard of 3000 ug/L.
1216	Completed analysis of groundwater samples.
1231	3000 ug/L calibration check: DCM = 2921 (97 %), TCM = 2840 (95 %), CCl ₄ = 2421 (81 %), TCE = 2637 (88 %), PCE = 2539 (85 %). Acceptable recoveries.
1319	Loaded manually method, shut down equipment, left site.

M.A. Baechler 5/19/99

MAB
5/19/99

M.A. Baechler / M.C. Baechler

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DATA DELIVERABLE COVER SHEET

Data Deliverable Cover Sheet

Date: Thursday, June 03, 1999

Deliverable type (check one): Preliminary Test Results
 Final Data Deliverable

Sample authorization form number: C99-028

Attachments (check all that apply or n/a): Narrative Summary
 Test Results
 Chains of Custody
 Logbook Pages

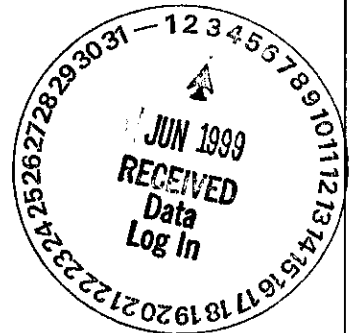
Total number of pages (including cover sheet): 5 pages

Comments:

(Note: If Preliminary results were provided verbally, document information provided below including instrument used and results as communicated to the project.)

M. A. Baehler
Analyst Signature

6/3/99
Date

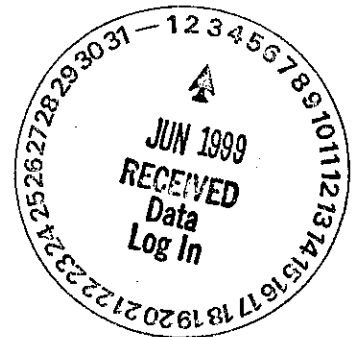


Distribution: Sample Management – Doris Ayres B1-35
Project (specify): None, Distributed Electronically
DIS

Requires distribution to listed project personnel by Sample Management.

200-ZP-1 Groundwater
Field Screening Results
Final Data Deliverable
SAF C99-028

<i>Well Number</i>	<i>HEIS Number</i>	<i>Date Sampled</i>	<i>Time Sampled</i>	<i>Sampler Initials</i>	<i>Analysis Date</i>	<i>Chloroform (ug/L)</i>	<i>CCl4 (ug/L)</i>	<i>TCE (ug/L)</i>	<i>Comments</i>
299-W18-26	B0V2F5	05/25/99	9:30	RZS	05/26/99	<2.0	58	<2.0	



M.A. Baechler, AFS, M.G. Baechler

200-ZP-1 Daily Activity Log (Logbook EL-1329)

Date: 5/26/99

0554	M.A. Baechler arrived on-site at laboratory trailer located at 200-ZP-1 to perform VOA sampling and analysis of the 200-ZP-1 pump and treat. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617101945. Loaded methods HSECFID.MTH (HP 5890) and HSECFID.HSM (HP 7694). System placed in recirculation mode at 6:10 AM.
0558	Exited laboratory trailer to collect process water and air samples.
0608	Returned to laboratory trailer with samples.
0614	Split flow = 39.7 mL/min. Septum purge = 3.06 mL/min.
0615	Prepared new warm-up standards of 5 and 10 ug/L and revised sample sequence "Z052699.S"
0617	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 ug/L.
0710	Started calibration of HP 5890 gas chromatograph.
0735	Prepared groundwater sample by transferring 10 mL of sample to a clean headspace vial.
0745	Prepared 100 ug/L calibration check standard.
0805	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
0800	Exited laboratory trailer to collect process water and air samples.
0815	Returned to laboratory trailer with samples.
0839	100 ug/L calibration check: DCM = 98 (98 %), TCM = 102 (102 %), CCl ₄ = 120 (120 %), TCE = 103 (103 %), PCE = 103 (103 %). Acceptable recoveries.
0923	Started analysis of process water samples.
1053	Completed analysis of process water samples. Notified project personnel on-site of results.
1115	3000 ug/L calibration check: DCM = 3158 (105 %), TCM = 3215 (107 %), CCl ₄ = 3371 (112 %), TCE = 3310 (110 %), PCE = 3368 (112 %). CCl ₄ outside control chart limits, rerun.
1148	3000 ug/L calibration check: DCM = 3030 (101 %), TCM = 2959 (99 %), CCl ₄ = 2570 (86 %), TCE = 2772 (92 %), PCE = 2662 (89 %). Acceptable recoveries.
1230	Loaded ecdonly method, shut down equipment, left site.

M.A. Baechler 6/3/99

MAB 6/3/99

M.A. Baechler
M.G. Baechler

200-ZP-1 Field Screening
 M.A. Baechler, AFS, M.G. Baechler

Notebook No. EL-1354-2
 Continued From Page N/A

MOBILE LABORATORY DATA/LOG SHEET (Logbook EL-1359)

Site Name: 200-ZP-1 Phase III

Date: 5/26/99

Sample Number	HEIS Number	Sample Time	Sample Type	Sampler (Initials)	Analysis Time	Analytical Results			Comments
						TCM ug/L	CCl4 ug/L	TCE ug/L	
DI Blank	---	0554	Water	MAB	0827	<2.0	<2.0	<2.0	hs012.d
100 ug/L Cal. check	---	0745	Water	MAB	0839	102 102%	120 120%	103 103%	hs013.d; Acceptable recoveries.
DI Blank	---	0554	Water	MAB	0850	<2.0	<2.0	<2.0	hs014.d
Z-T2-01	B0T581	0601	Water	MAB	0923	<2.0	9.0	<2.0	hs017.d
Z-V1-01	B0T582	0603	Water	MAB	0934	<2.0	7.0	<2.0	hs018.d;
299-W18-26	B0V2F5	0930	Water	MAB	0946	<2.0	58	<2.0	hs019.d; 5/25/99
Z-T1-01	B0T583	0605	Water	MAB	0957	22	3914	8.1	hs020.d
DI Blank	---	0554	Water	MAB	1008	<2.0	<2.0	<2.0	hs021.d
DI Blank	---	0554	Water	MAB	1019	<2.0	<2.0	<2.0	hs022.d
Z-T2-02	B0T584	0807	Water	MAB	1030	<2.0	<2.0	<2.0	hs023.d
Z-V1-02	B0T585	0809	Water	MAB	1041	<2.0	<2.0	<2.0	hs024.d;
Z-T1-02	B0T586	0811	Water	MAB	1053	<2.0	218	<2.0	hs025.d
DI Blank	---	0554	Water	MAB	1104	<2.0	<2.0	<2.0	hs026.d
3000ug/L Cal. check	---	0945	Water	MAB	1115	3215 107%	3371 112%	3310 110%	hs027.d; High CCl4, rerun.
DI Blank	---	0554	Water	MAB	1126	<2.0	<2.0	<2.0	hs028.d
3000ug/L Cal. check	---	1123	Water	MAB	1148	2959 99%	2570 86%	2772 92%	hs030.d; Acceptable recoveries.
DI Blank	---	0554	Water	MAB	1159	<2.0	<2.0	<2.0	hs031.d

For instrument operation information, please refer to logbook EL-1329-1, page 116

M.A. Baechler 6/3/99
 M.A. Baechler
 M.G. Baechler 6/3/99

Continued on Page N/A

Read and Understood By

Signed _____ Date _____