

hydrologue, Inc.

Consulting Engineers & Geologists

Remediation Engineering

Hazardous Substances

Geology and Hydrogeology

Geotechnical Engineering

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ALCO
<http://www.hydrologue.com>

VIA FACSIMILE 510-337-9335 AND U.S. MAIL

July 29, 2005

Project No. 3034-00

MR. AMIR GHOLAMI
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway Ste 250
Alameda, CA 94502

Alameda County
AUG 02 2005
Environmental Health

SUBJECT: AMENDMENT TO WORKPLAN
SBC CTVYCA60 (P5200) Facility
2610 Norbridge Ave, Castro Valley, CA 94546
SITE NO. RO0002610

Dear Mr. Gholami:

Hydrologue Inc. (HI) and SBC have reviewed your letter dated July 19, 2005 for the above Site. We understand that the Alameda County Environmental Health Local Oversight Program (LOP) has approved the HI workplan dated March 23, 2005 with some modifications.

The LOP letter directs SBC to determine the underlying bedrock is not fractured, to extend the well below groundwater and up to couple of feet into the bedrock, and to collected continuous soil and groundwater samples.

The LOP letter referenced previous borings SB-1 and MW-1. However, these borings were installed as part of the 1993 gasoline underground storage tank (UST) site investigation. Subsequent to the UST removal and excavation and disposal of soil containing hydrocarbons, four soil borings were installed in 1994. Soil borings SB-1 through SB-3, drilled outside the former UST excavation, did not encounter groundwater and were terminated at depths of 30 feet, 16 feet and 17 feet, respectively, due to refusal at the bedrock. TPH-g and BTEX were not detected in the soil samples analyzed from these borings. One groundwater monitoring well (MW-1) was installed within the former UST excavation and no soil samples were collected since it was installed in the new backfill. TPH-g and BTEX were not detected in the groundwater sample collected in February 1994. This Site was granted closure by the County in a letter dated May 29, 1996.

Based on the data collected and observed during the previous investigations, a tan, highly sheared, claystone bedrock material underlies the surface of the site from approximately 15 to 30 feet bgs. The bedrock unit was observed to be very hard and dry. The upper surface of this unit is

irregular and is overlain by a less dense fine-grained sedimentary cover of silt and clay which varies in thickness.

The currently proposed workplan is associated with another UST which was removed by SBC in December 2003. During this UST removal, both soil and groundwater samples were collected. No TPH-g, BTEX, fuel oxygenates or lead scavengers were detected in the collected soil samples. Very low levels of hydrocarbons were detected in a water sample collected from the tank pit area. MTBE and TBA were detected in the tank pit water sample at 24 ppb and 16 ppb, respectively. Benzene, toluene, and xylenes concentrations were below 1 ppb. TPH-g, ethylbenzene, remaining fuel oxygenates, lead scavengers, and organic lead were not detected.

On July 19, 2005 well MW-1 and observation well OW-1 were sampled by HI and analyzed for TPH-g, BTEX, MTBE and fuel oxygenates. OW-1 is an observation well apparently installed within the 2003 UST removal backfill to a depth of 8 feet. Only low concentrations of MTBE were detected in both MW-1 and OW-1 at 0.84 and 0.67 ppb, respectively.

SBC and HI believe that the extension of monitor wells into the fractured bedrock zone will result in excessive costs and provide little useful data due to the following site conditions:

1. The presence of very stiff clay above the claystone bedrock in all of the previous borings (SB1-SB3) which would generally trap any contaminants and prevent further vertical migration. Based on the lithology of previous boring SB-1 which was drilled to 30 feet bgs, there is no evidence that the underlying bedrock is saturated and/or water bearing. Review of several adjacent LOP sites indicate that these adjacent sites only have shallow groundwater monitoring wells which do not exceed 20 feet bgs.
2. Soil sample results from the 2003 UST removal did not exhibit petroleum hydrocarbons or fuel oxygenates.
3. Recent groundwater sample analytical results collected on July 19, 2005 from MW-1 and OW-1 indicate that except for low concentrations of MTBE **below 1.0 ppb**, no BTEX, TPH-g, or fuel oxygenates were detected at the site. Hence the groundwater within the former UST backfill does not appear to be a likely threat to human health or the environment. Additional borings/wells within the pea gravel backfill are not necessary and would likely not provide accurate local shallow groundwater gradient information.
4. The physical difficulty associated with advancing augers through and collecting samples of claystone bedrock. Given the dense subsurface material encountered during the 1994 investigation, it is reasonable to assume that SPT or Cal-modified split barrel sampling will not be a feasible method of collecting soil samples for laboratory analysis or assessing potential fractures in the claystone.
5. If there were any residual shallow contamination, penetration of the claystone bedrock could promote cross-contamination of constituents from shallow material into the bedrock.

In order to resolve LOP concerns; HI proposes the following amendment to its workplan:

- HI will utilize a California Professional Geologist for the drilling activities.
- Drill one boring (SB-4) within the former UST excavation using a CME-type continuous sampler, assuming the feasibility of drilling. The boring would be drilled to a depth of 30

feet, or auger refusal, and soil samples would be retained from natural soil below the backfill at 5-foot intervals for laboratory analysis. If the deepest soil sample is not found to contain detectable concentrations of constituents of concern, the results would demonstrate that constituents have not migrated downward from the tank pit to the underlying bedrock.

- If saturated conditions or indications of water-bearing fractures are encountered in the natural soil/formation beneath the former UST, a well will be constructed with screened interval intercepting the water bearing zone. Otherwise, upon completion, boring SB-4 will be backfilled with a cement-bentonite grout.
- HI will drill two wells **outside** the former UST backfill (MW-2 and MW-3) to a total depth of 20 feet bgs or auger refusal. In the event that refusal is encountered, HI will terminate any well at that depth. Soil samples will be collected every five feet in each of the two borings for laboratory analysis.

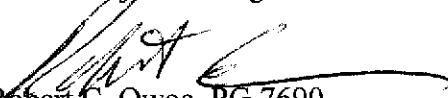
HI will initiate drilling activities at the Site on or about August 22, 2005 at 9:00 AM. Well permits have been received from Alameda County Public Works Agency.

Finally the only open GEO ID for this Site is T0600101657 in the State Geotracker database. However said GEO ID is for the case which was closed. Please inform us if SBC can upload the electronic data to this closed site or if you will request a new GEO ID.

Very truly yours,
HYDROLOGUE, INC.



Christopher P. d'Sa, M.S.
Senior Project Manager

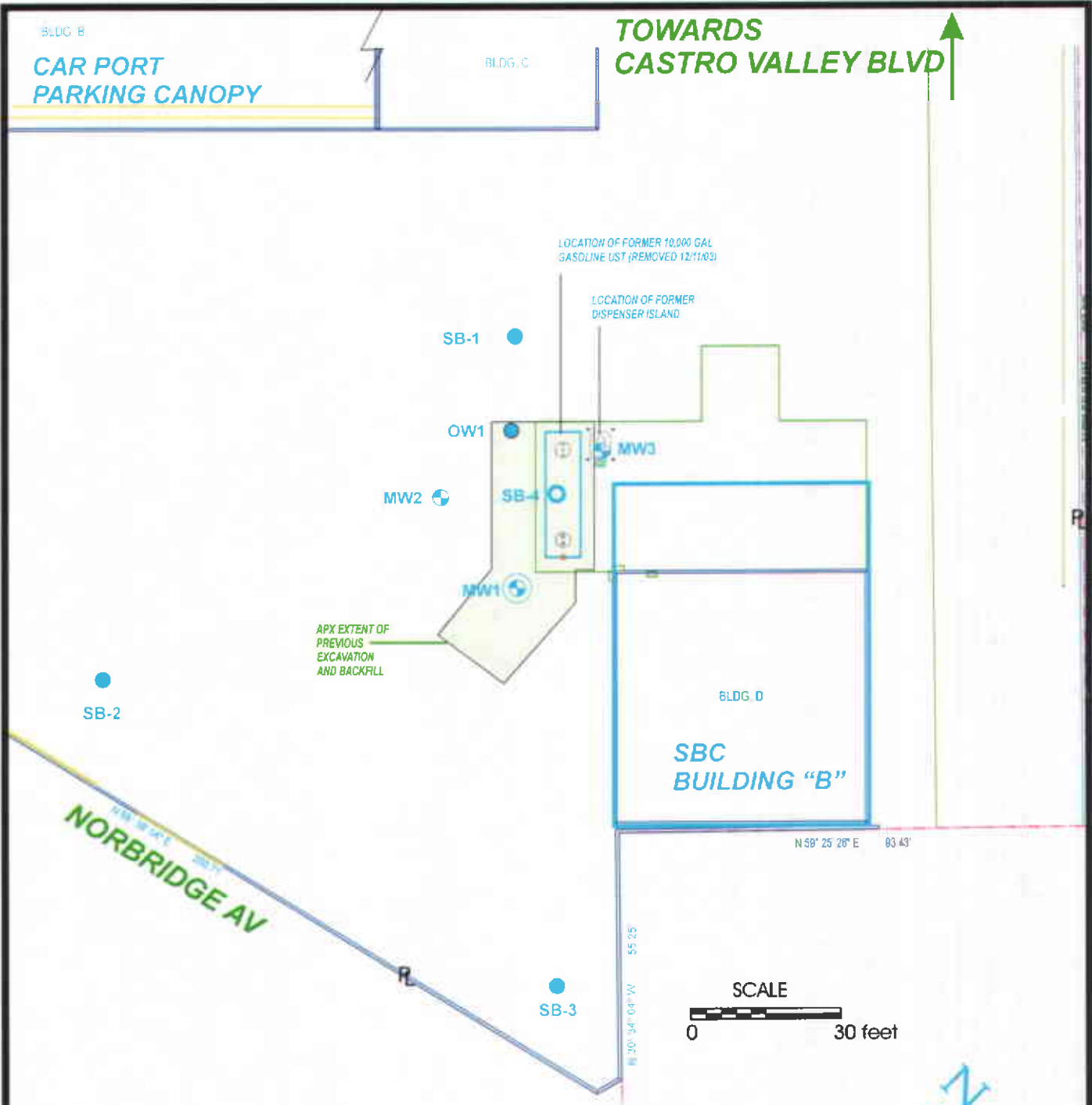


Robert C. Owoc, PG 7690
Senior Project Manager

Attachments: July 19, 2005 Analytical Data
Revised Site Plan

cc: DURHAM, MONIQUE L (SBCSI)

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- MW3 PROPOSED GROUNDWATER MONITORING WELL
- MW1 EXISTING GROUNDWATER MONITORING WELL (IT, 1994)
- OW1 OBSERVATION WELL INSTALLED IN OLD UST BACKFILL
- SB-4 PROPOSED SOIL BORING BELOW FORMER UST
- SB-1 SOIL BORING (IT, 1994)

CLIENT		LOCATION	
		2610 NORBRIDGE AVE CASTRO VALLEY, CA 94546	
TITLE		FIGURE NUMBER	
SITE PLAN		2	
PROJECT 3034-00			
hydrologue, Inc. <i>Consulting Engineers & Geologists</i>			



Report Number : 44882

Date : 7/26/2005

Chris d'Sa
Hydrologue Inc.
2793 E. Foothill Boulevard
Pasadena, CA 91107

Subject : 2 Water Samples
Project Name : 2610 NORBRIDGE AVE CASTRO VALLEY, CA 94546
Project Number : 3034

Dear Mr. d'Sa,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff

Project Name : **2610 NORBRIDGE AVE CASTRO VALLEY, CA 94546**

Project Number : **3034**

Sample : **MW1**

Matrix : Water

Lab Number : 44882-01

Sample Date : 7/19/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Methyl-t-butyl ether (MTBE)	0.84	0.50	ug/L	EPA 8260B	7/22/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/22/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Toluene - d8 (Surr)	96.8		% Recovery	EPA 8260B	7/22/2005
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	7/22/2005
Dibromofluoromethane (Surr)	118		% Recovery	EPA 8260B	7/22/2005
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	7/22/2005

Approved By:

Joel Kiff



Project Name : **2610 NORBRIDGE AVE CASTRO VALLEY, CA 94546**

Project Number : **3034**

Sample : **OW1**

Matrix : Water

Lab Number : 44882-02

Sample Date : 7/19/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Methyl-t-butyl ether (MTBE)	0.67	0.50	ug/L	EPA 8260B	7/22/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/22/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Toluene - d8 (Surr)	96.2		% Recovery	EPA 8260B	7/22/2005
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	7/22/2005
Dibromofluoromethane (Surr)	118		% Recovery	EPA 8260B	7/22/2005
1,2-Dichloroethane-d4 (Surr)	106		% Recovery	EPA 8260B	7/22/2005

Approved By:

Joel Kiff



Report Number : 44882

Date : 7/26/2005

QC Report : Method Blank Data

Project Name : **2610 NORBRIDGE AVE CASTRO VALLEY, CA 94546**

Project Number : **3034**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/22/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	7/22/2005
Toluene - d8 (Surr)	96.8		%	EPA 8260B	7/22/2005
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	7/22/2005
Dibromofluoromethane (Surr)	113		%	EPA 8260B	7/22/2005
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	7/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:  Joel Kiff

Report Number : 44882


Date : 7/26/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 2610 NORBRIDGE AVE

Project Number : 3034

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Recov. Limit	Relative Percent Diff. Limit
Benzene	44920-02	<0.50	40.0	40.0	40.5	39.4	ug/L	EPA 8260B	7/22/05	101	98.6	2.61	70-130	25
Toluene	44920-02	<0.50	40.0	40.0	38.4	37.4	ug/L	EPA 8260B	7/22/05	95.9	93.6	2.43	70-130	25
Tert-Butanol	44920-02	<5.0	200	200	201	198	ug/L	EPA 8260B	7/22/05	100	98.8	1.72	70-130	25
Methyl-t-Butyl Ether	44920-02	<0.50	40.0	40.0	40.2	40.1	ug/L	EPA 8260B	7/22/05	101	100	0.400	70-130	25

Approved By:  Joe Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 44882

Date : 7/26/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : **2610 NORBRIDGE AVE**

Project Number : **3034**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	7/22/05	92.0	70-130
Toluene	40.0	ug/L	EPA 8260B	7/22/05	91.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/22/05	93.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/22/05	90.5	70-130

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:


Joel Kiff

44882

CHAIN-OF-CUSTODY RECORD FORM

hydrologue Inc.
Consulting Engineers & Geologists

SIGNATURE: <i>ShaoFu Chen</i> PRINTED NAME: ShaoFu Chen COMPANY: hydrologue Inc.			PROJECT NO/NAME: 3034 SBC CTVYCA60 (P5200) ADDRESS: 2610 NORBRIDGE AVE CASTRO VALLEY, CA 94546 PROJECT MANAGER: CHRIS D'SA			METHODS TPH DIESEL 801 (M) WSC TPH GASOLINE 801 S TPH DIESEL RANGE 801 S (M) MIBERTEX 8021 B TPH 418.1 TPH GASOLINE (REVIEW) REL CRY + 1.20CA + EDI EPA 8260B VOCs 824 VOCs 8260B PCBs 8080 CATION METALS ORGANIC LEAD DOHS METHOD										5-SOL W- WATER A- AIR B- BULK		5-SOL W- WATER A- AIR B- BULK		SPECIAL HANDLING	
CONDITION/TEMP: REGULAR TURNAROUND TIME: REGULAR			SHIPPING METHOD: AIRBILL NO.:			SAMPLE MATRIX CONTAINER TYPE NO. OF CONTAINERS										SPECIAL HANDLING					
SAMPLE ID	DATE	TIME	DESCRIPTION	TPH DIESEL 801 (M) WSC	TPH GASOLINE 801 S	TPH DIESEL RANGE 801 S (M)	MIBERTEX 8021 B	TPH 418.1	TPH GASOLINE (REVIEW) REL CRY + 1.20CA + EDI EPA 8260B	VOCs 824	VOCs 8260B	PCBs 8080	CATION METALS	ORGANIC LEAD DOHS METHOD	5-SOL W- WATER A- AIR B- BULK	5-SOL W- WATER A- AIR B- BULK	NO. OF CONTAINERS	SPECIAL HANDLING			
MW4A (MW-1)	7/19/05	15:20	WATER SAMPLE												W	G	4	4 VOA VIALS WITH ACID			
MW-1B (OW-1)		15:25																3	EMAIL RESULTS TO chris@hydrologue.com REPORT ALL RESULTS IN PPB		
Sample Facility: <i>Therm. ID# 12-3</i> Temp °C: <i>15.2</i> Initial: <i>15.2</i> Time: <i>15:25</i> Coolant Present: <i>Yes</i>																					
RELINQUISHED BY SIGNATURE: <i>ShaoFu Chen</i> PRINTED NAME: ShaoFu Chen COMPANY: hydrologue Inc.			DATE: 7/19/05 TIME: 15:20			RELINQUISHED BY SIGNATURE: <i>[Signature]</i> PRINTED NAME: <i>[Name]</i> COMPANY: <i>[Company]</i>			DATE: <i>[Date]</i> TIME: <i>[Time]</i>			RELINQUISHED BY SIGNATURE: <i>[Signature]</i> PRINTED NAME: <i>[Name]</i> COMPANY: <i>[Company]</i>			DATE: <i>[Date]</i> TIME: <i>[Time]</i>			REMARKS			
RECEIVED BY SIGNATURE: <i>[Signature]</i> PRINTED NAME: <i>[Name]</i> COMPANY: <i>[Company]</i>			DATE: <i>[Date]</i> TIME: <i>[Time]</i>			RECEIVED BY SIGNATURE: <i>[Signature]</i> PRINTED NAME: <i>[Name]</i> COMPANY: <i>[Company]</i>			DATE: <i>[Date]</i> TIME: <i>[Time]</i>			RECEIVED BY (LAB) SIGNATURE: <i>[Signature]</i> PRINTED NAME: <i>[Name]</i> COMPANY: Kiff Analytical 530-297-4800			DATE: 7/19/05 TIME: 17:05			REMARKS			