AGI
TECHNOLOGIES

Quarterly Groundwater Monitoring
19984 Meekland Avenue
Hayward, California

November 29, 1995

Prepared For :

Mr. Jerry Harbert
20150 Rancho Bella Vista
Saratoga, California 95070

AGI Project No. 15,833.002

AGI
TECHNOLOGIES

A Report Prepared For:

Mr. Jerry Harbert
20150 Rancho Bella Vista
Saratoga, California 95070

QUARTERLY GROUNDWATER MONITORING
19984 MEEKLAND AVENUE
HAYWARD, CALIFORNIA

November 29, 1995

by

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Project Hydrogeologist

for
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AGI Project No. 15,833.002.04

AGI TECHNOLOGIES

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INTRODUCTION

GENERAL

This report describes the actions conducted during quarterly groundwater monitoring performed at 19984 Meekland Avenue (the site) in Hayward, California by AGI Technologies (AGI) on behalf of Mr. Jerry Harbert (formerly Harbert Transportation). The work described herein was conducted in accordance with AGI's existing scope of services as authorized by AGI Service Agreement dated June 26, 1994.

PURPOSE AND SCOPE OF SERVICES

The purpose of our work was to perform groundwater monitoring at eight on-site and two off-site groundwater monitoring wells. Our specific scope of services include the following tasks:

- Collecting groundwater elevations from eight on-site groundwater monitoring wells (MW3 through MW9 and MW12) and two off-site groundwater monitoring wells (MW10 and MW11).
- Purging and sampling MW4, MW8, MW10, and MW11.
- Collecting and submitting groundwater samples for chemical testing of petroleum hydrocarbons and chlorinated solvents.
- Evaluating the hydrogeologic and chemical data generated during field activities.
- Preparing this report describing our services and conclusions.

BACKGROUND

Site Setting

The site is relatively level and located at the northeast corner of Meekland Avenue and Blossom Way in an unincorporated area of Alameda County near the City of Hayward, as shown on **Figure 1**. It was owned by Mr. Jerry Harbert and is currently unoccupied. The site is fenced on all sides and has no aboveground structures. The site surface is paved with concrete and asphaltic concrete except where tanks and associated piping were previously located.

Land use in the area includes residential and commercial properties. The site is surrounded by single-family homes and multi-family complexes and is bounded by residential property to the east and north, Blossom Way to the south, and Meekland Avenue to the west. Commercial businesses located at the other three corners of the Meekland/Blossom intersection include a liquor store; an auto repair shop; and a strip mall that includes a grocery store, hair salon, and comics/trading shop. Both the liquor store and auto repair shop sites were previously occupied by gas stations. We understand that fuel tanks have been removed from both locations.

Ten on-site and two off-site groundwater monitoring wells were installed during previous investigations (see **Figure 2**). On-site wells MW1 and MW2 (not shown on **Figure 2**) were subsequently abandoned.

Geological Setting

The site is underlain by fine-grained alluvial fan and flood plain deposits derived from the Diablo Range located approximately 2 miles to the east. Three to four feet of fill overlies native soils at the site. The fill consists of clayey and sandy gravel. Underlying native deposits consist of silty clay to clayey silt, with minor sand and gravel. Thin (3 to 4 inches) lenses of silty sand and gravel were encountered at various depths during monitoring and well installation. The clay and silt deposits reportedly extend to approximately 45 feet below ground surface (bgs), which was the maximum depth explored. The deposits were reported to be homogeneous. The groundwater gradient direction at the site has historically been reported to be to the northwest at a depth of approximately 28 feet bgs.

Historical Use

During the 1940s and 1950s, the subject site was operated as a family-owned service station. Later, Harbert Transportation purchased the site and operated it as a vehicle fueling and maintenance facility. Durham Transportation used the site for vehicle parking from 1986 to 1989. In August 1989, three (one 4,000-gallon, one 5,000-gallon, and one 6,000-gallon) gasoline underground storage tanks (USTs) and one 500-gallon waste oil UST were removed from the site.

Previous Assessments

Previous site assessment results indicate that gasoline constituents benzene, ethylbenzene, toluene, and total xylenes (BETX) and total petroleum hydrocarbons quantified as gasoline (TPH-G) have been detected in soil samples collected from 12 to 28 feet bgs in the area of the three former gasoline USTs. A soil vapor survey of the site indicated gasoline and BETX were present from 20 to 28 feet bgs throughout most of the site. Analyses of groundwater samples from the on- and off-site wells indicate the presence of gasoline, BETX, and low levels of halogenated volatile organic compounds (HVOCs). The lateral extent of impacted groundwater was not delineated during the previous assessments.

GROUNDWATER MONITORING

Elevation Survey

On August 11, 1994, AGI performed a level survey to determine the top of well casing elevations of the monitoring wells using an assumed elevation of 100 feet above Mean Sea Level as an arbitrary datum. The well casing top of monitoring well MW3 was used as the bench mark. Monitoring well MW3 is located at the northwest corner of the site as shown on **Figure 2.**

Monitoring and Sample Collection

On September 15, 1995, AGI measured the depth to groundwater beneath the top of casing of the 10 wells to an accuracy of 0.01 foot and checked for the presence of free petroleum product (FP). No FP was encountered during this monitoring event. Depth to groundwater ranged from 23.79 to 25.35 feet bgs. Groundwater elevation data are presented in **Table 1**. A groundwater contour map constructed using the water level data is presented on **Figure 3**. Based on the data collected, the inferred groundwater flow direction is toward the northwest, generally consistent with previous monitoring results.

AGI purged the wells using clean polyethylene bailers until the pH, temperature, and specific conductance of the purged water stabilized. At least three well volumes of water were removed from each well during purging. After purging, groundwater samples were collected from monitoring wells MW4, MW8, MW10, and MW11 using clean, disposable polyethylene bailers. Groundwater sampling procedures are described in **Appendix A**.

Sample Handling

The samples were placed in appropriate containers for the analytical tests performed. All samples were labeled, sealed, and placed in a chilled, thermally insulated cooler for transport to the project laboratory. Sample handling was documented using chain-of-custody records. Copies of chain-of-custody records are included in **Appendix B**.

CHEMICAL ANALYSIS

ANALYTICAL METHODS

Samples were submitted to Anametrix Laboratories, a California State-certified analytical laboratory located in San Jose, California. The samples were analyzed for TPH quantified as diesel (TPH-D) and TPH-G using EPA Method 8015 Modified, BETX using EPA Method 8020, and HVOCs using EPA Method 8010. Results of groundwater chemical analyses are presented in **Table 2** and shown graphically on **Figure 4**.

ANALYTICAL RESULTS

TPH-G was detected in all wells sampled except MW8 at concentrations ranging from 110 to 9,600 micrograms per liter ($\mu g/L$). Results of TPH-D analyses indicate diesel-range petroleum hydrocarbons in samples collected from MW10 and MW11, at concentrations of 1,900 and 550 $\mu g/L$, respectively.

Benzene was detected in all wells sampled except MW8 at concentrations ranging from 2.5 to 130 $\mu g/L$. Ethylbenzene was detected in MW10 and MW11 at concentrations of 49 and 180 $\mu g/L$, respectively. Toluene was detected in MW4 at a concentration of 0.85 $\mu g/L$. Total xylenes were detected in MW10 and MW11 at concentrations of 4.9 and 130 $\mu g/L$, respectively.

Results of HVOC analyses indicate the presence of 1,2-dichloroethane (1,2-DCA) in samples collected from MW4 and MW11 at concentrations of 2.3 and 8.8 μg/L, respectively. Tetrachloroethene (PCE) was detected in MW8 at a concentration of 0.74 μg/L. Trichloroethene (TCE) was detected in MW11 at a concentration of 5.6 μg/L.

CONCLUSIONS

Groundwater elevations have increased since October 1994. The groundwater flow direction continues to be toward the northwest. Petroleum hydrocarbon concentrations generally increased in wells MW4 and MW11. Petroleum hydrocarbon concentrations either decreased or were not detected in wells MW8 and MW10. HVOC concentrations increased in wells MW4 (1,2-DCA), MW8 (PCE), and MW11 (1,2-DCA and TCE). 1,2-DCA, previously detected in MW10 at concentrations ranging between 12 to 13 μg/L, was below laboratory detection limits.

AGI TECHNOLOGIES

DISTRIBUTION

3 Copies	c/o Mr. Jerry R. Harbert Reed, Elliott, Creech & Roth 99 Almaden Boulevard Eighth Floor San Jose, California 95113 Attention: Mr. Jeffrey S. Lawson
3 Copies	Durham Transportation, Inc. 9171 Capital of Texas Highway North Travis Building, Suite 200 Austin, Texas 78759 Attention: Mr. David Delamontte
1 Copy	Alameda County Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway, Room 250 Alameda, California 94502-6577 Attention: Ms. Madulla Logan

Quality Assurance/Technical Review by:

Daniel T. Henninger
Senior Scientist

AGI TECHNOLOGIES

Table 1
Groundwater Elevation Data
Harbert Transportation/Meekland Avenue
Hayward, California

Well Number	Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (ft bgs)	Groundwater Elevation (feet)
MW3	10/20/94	100.00	27.12	72.88
	09/15/95		24.22	75.78
MW4	10/20/94	100.27	27.32	72.95
	09/15/95		24.42	75.85
MW5	10/20/94	100.59	27.71	72.88
	09/15/95		24.87	75.72
MW6	10/20/94	100.57	27.68	72.89
	09/15/95		24.79	75.78
MW7	10/20/94	101.22	28.25	72.97
	09/15/95		25.35	75.87
MW8	10/20/94	100.72	27.73	72.99
	09/15/95		24.81	75.91
MW9	10/20/94	99.77	26.90	72.87
	09/15/95		24.01	75.76
MW10	10/20/94	99.29	26.46	72.83
	09/15/95		23.79	75.50
MW11	10/20/94	99.75	26.89	72.86
	09/15/95		24.05	75.70
MW12	10/20/94	101.03	28.11	72.92
	09/15/95		25.19	75.84

Note:

ft bgs - Feet below ground surface.

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Table 2
Summary of Groundwater Chemical Analyses
Harbert Transportation/Meekland Avenue
Hayward, California

Well	Date Sampled	EPA Test Methods								
		8015 M		BETX 5030/8020				8010		
		TPH Gasoline	TPH Diesel	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA	PCE	TCE
		µg/L	µg/L	µg/L				µg/L	µg/L	µg/L
MW3	07/28/94	7,700	970 [a]	1,800	810	ND	600	22	ND	ND
	10/21/94	7,400	810	1,900	900	37	780	25	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW4	07/28/94	120	ND	7.9	0.7	1.1	ND	ND		
	10/21/94	69	ND	3.4	ND	ND	ND	ND	ND	ND
	09/15/95	110	ND	2.5	ND	0.85	ND	2.3	ND	ND
MW5	07/29/94	30,000	2,200 [a]	9,300	1,100	1,800	2,300	110	ND	ND
	10/21/94	23,000	1,500	7,900	780	1,500	2,900	85	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW6	07/29/94	15,000	2,100 [b]	3,100	1,100	71	2,000	37	ND	ND
	10/21/94	18,000	1,500	3,900	1,200	170	3,200	35	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW7	07/29/94	2,600	530 [c]	470	220	ND	310	2.7	6	ND
	10/21/94	1,700	280	290	140	4.5	240	1.8	0.74	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW8	07/28/94	ND	78 [a]	ND	ND	ND	ND	ND	ND	ND
	10/21/94	ND	ND	ND	ND	ND	ND	ND	0.72	ND
	09/15/95	ND	ND	ND	ND	ND	ND	ND	0.74	ND
MW9	07/28/94	6,000	1,300 [c]	90	170	27	370	26	ND	ND
	10/21/94	6,900	600	1,800	280	220	1,500	31	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW10	07/28/94	6,700	2,000 [c]	99	180	57	430	13	ND	ND
	10/21/94	8,600	2,000	93	200	ND	680	12	ND	ND
	09/15/95	2,100	1,900	9.9	49	ND	4.9	ND [d]	ND [d]	ND [d]

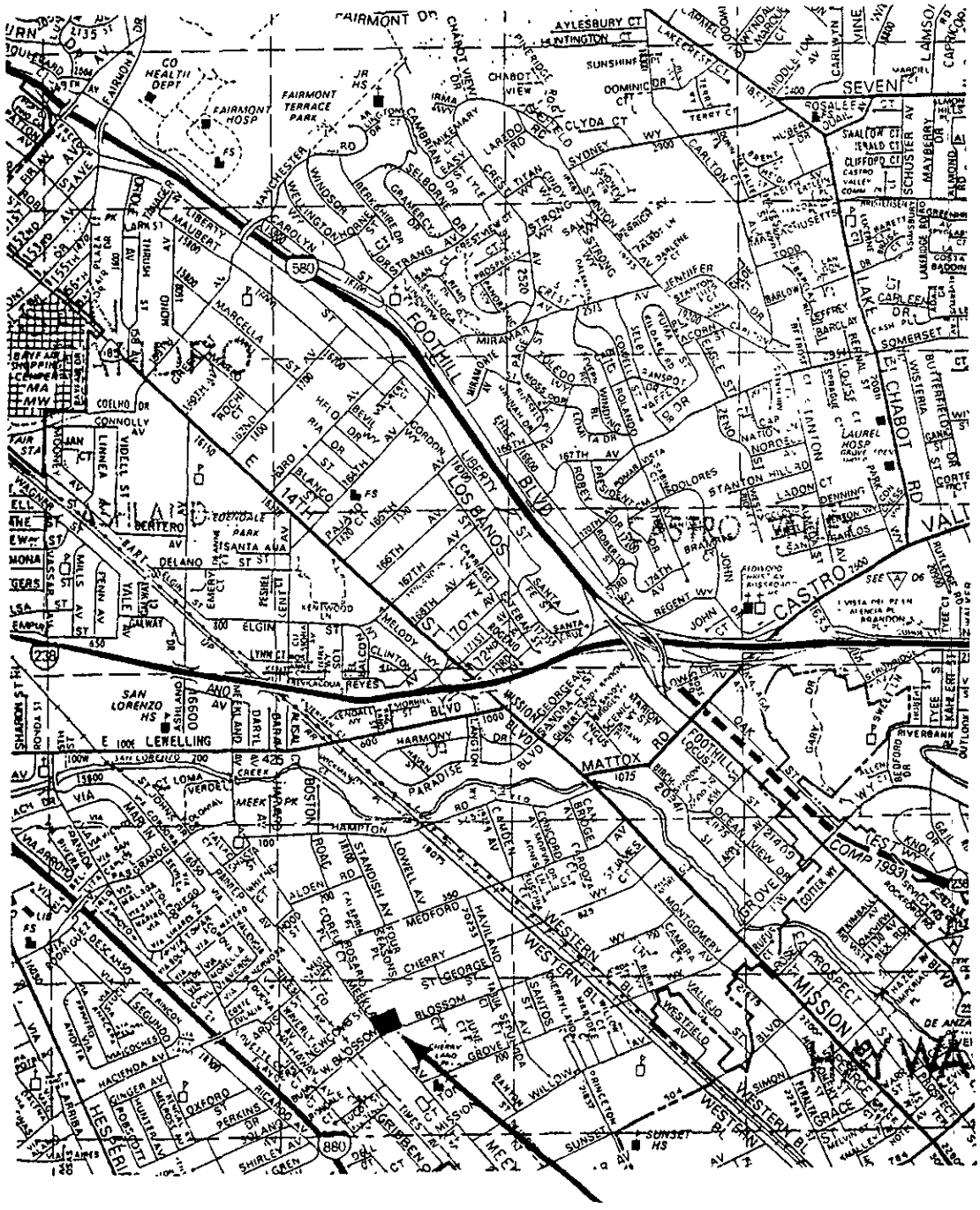
AGI TECHNOLOGIES

Table 2
Summary of Groundwater Chemical Analyses
Harbert Transportation/Meekland Avenue
Hayward, California

Well	Date Sampled	EPA Test Methods								
		8015 M		BETX 5030/8020				8010		
		TPH Gasoline	TPH Diesel	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA	PCE	TCE
		µg/L	µg/L	µg/L				µg/L	µg/L	µg/L
MW11	07/28/94	450	150 [a]	6.2	20	1.1	6.6	ND	ND	ND
	10/21/94	460	190	4.9	14	ND	12	ND	ND	ND
	09/15/95	9,600	550	130	180	ND	130	8.8 [e]	ND [e]	5.6 [e]
MW12	07/28/94	240	160	1.9	12	ND	5.8	ND	ND	ND
	10/21/94	260	190	1.9	4.5	ND	6.8	ND	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
Method Detection Limit		50	50	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Notes:

a) Hydrocarbons quantified as diesel are primarily due to discrete peaks not indicative of diesel fuel.
b) Hydrocarbons quantified as diesel are primarily due to the presence of a lighter petroleum product (C_6-C_{12}), possibly gasoline.
c) Hydrocarbons quantified as diesel are due to the presence of a lighter petroleum product (C_6-C_{12}) and discrete peaks not indicative of diesel fuel.
d) Dilution factor of 5.
e) Dilution factor of 10.
1,2-DCE - 1,2-dichloroethane.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
NA - Not analyzed.
NS - Not sampled.
ND - Not detected at or above method detection limit.
TPH-Gasoline - Total petroleum hydrocarbons quantified as gasoline.
TPH-Diesel - Total petroleum hydrocarbons quantified as diesel.
µg/L - Micrograms per liter, equivalent to parts per billion.



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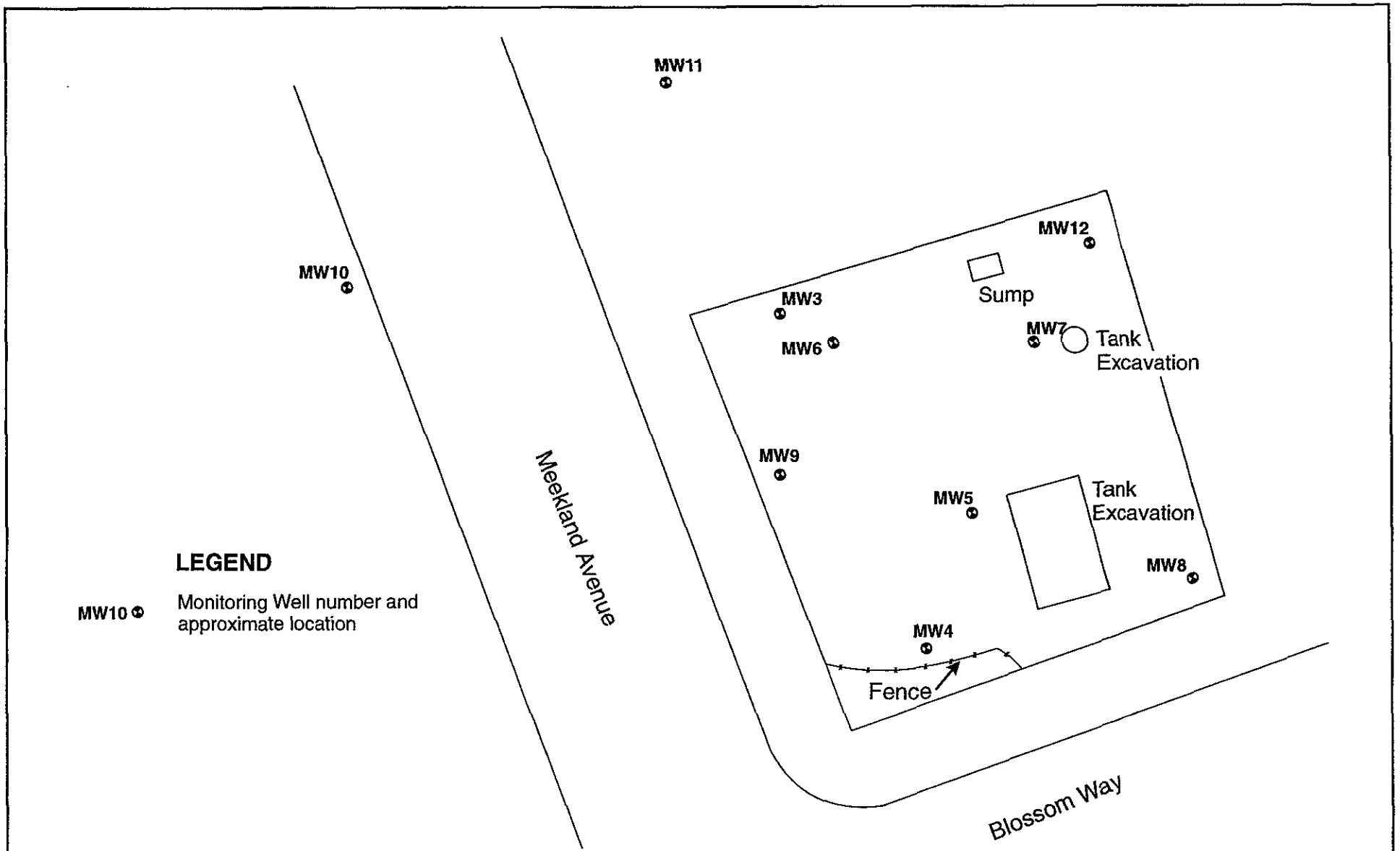
Vicinity Map

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 1

PROJECT NO	DRAWN	DATE	APPROVED	REVISED	DATE
15,833.002.04	DFF	15 Aug 94		DFF	7 Jul 95



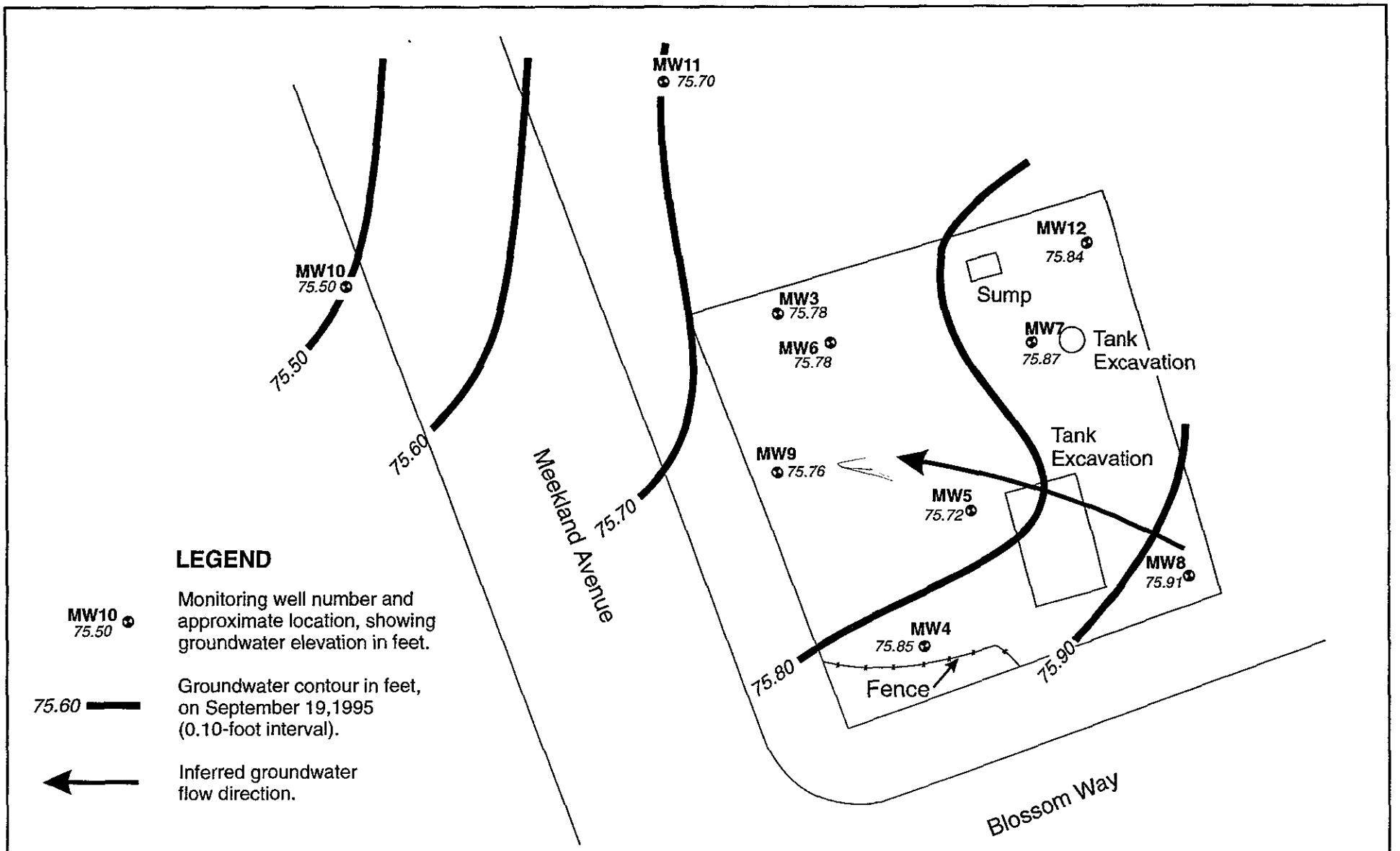
AGI TECHNOLOGIES

Site Plan

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 2

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
siteplan.cdr	15,833.002	DFF	29 August 94	DFF	24 Jan 95



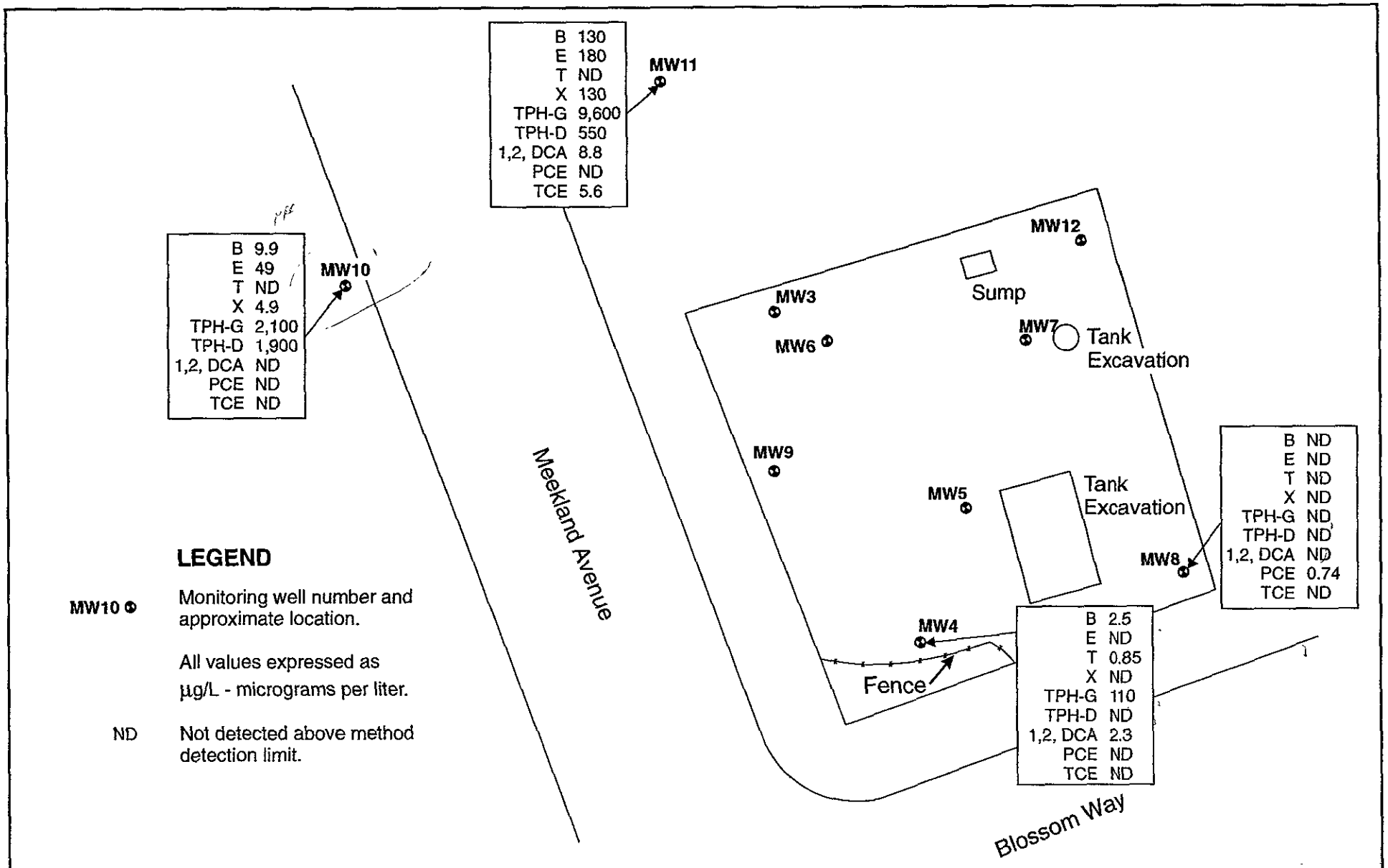
AGI TECHNOLOGIES

Groundwater Elevation and Contour Map

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 3

PROJECT NO	DRAWN	DATE	APPROVED	REVISED	DATE
grdwat.cdr	15,833.002	DFF	29 August 94	BJA	8 Nov 95



AGI TECHNOLOGIES

Groundwater Chemical Analysis Results - 9/15/95

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
83300201.cdr	15,833.002	DFF	1 Feb 95	BJA	8 Nov 95

APPENDIX A

Groundwater Monitoring Procedures

AGI TECHNOLOGIES

APPENDIX A

Groundwater Monitoring Procedures

INTRODUCTION

The following sections describe procedures which are followed by AGI Technologies (AGI) during quarterly groundwater monitoring at 19984 Meekland Avenue in Hayward, California. Site-specific variations may be implemented, with the approval of the project manager, based upon site conditions, client or regulatory agency requirements, or other factors, provided the quality of data collected is not in any way reduced.

GROUNDWATER MONITORING PROCEDURES

Elevation Survey

Following well installation, the top of each well casing was surveyed using an on-site bench mark with an assumed elevation of 100.00 feet. Depth to groundwater from the survey mark at the casing top was measured in monitoring wells MW4, MW8, MW10, and MW11 on September 15, 1995.

Water Level Measurements

Prior to sampling, the depth to groundwater was measured in each monitoring well. Measurements were taken at the highest point on the top of each well casing and obtained to the nearest hundredth of a foot using an electronic water level meter. Water level measurements were recorded on a separate field sampling record for each well. The total depth of each well was also measured to the nearest 1/2 foot and recorded on the field sampling record. These measurements were used to calculate the minimum purge volume for each well and to prepare the groundwater contour map.

Groundwater Sampling Procedures

Following collection of water level measurement data, MW4, MW8, MW10, and MW11 were purged of a minimum of three well casing volumes of water prior to sample collection. During purging, pH, temperature, and specific conductance of the pump discharge were monitored using a calibrated electronic monitoring device. The well was considered fully purged when the pH, temperature, and specific conductance of the purge water stabilized, or when the well was pumped dry (low-yield wells only). Immediately following purging of each well, samples were collected using a 2-inch or 4-inch polyethylene bailer. A new, precleaned disposable bailer was used for each well.

Samples were collected in appropriate Environmental Protection Agency (EPA)-approved containers based upon the analyses required. Samples most sensitive to field conditions were collected first, followed by less sensitive samples (in descending order). Following collection, each sample was placed on Blue Ice in a chilled cooler prior to transport to the laboratory for analysis.

Following sample collection, all nondisposable sampling equipment was decontaminated using the following procedure:

Step 1: Rinse and preclean in potable water.
Step 2: Wash in solution of laboratory-grade non-phosphate-based soap and potable water.
Step 3: Dip rinse in potable water.
Step 4: Rinse with distilled water.

All solutions were renewed between sampling. Scrub brushes and nylon scrubbers were used during all steps. All equipment was air dried, when possible, and held in clean plastic bags between sampling.

Quality Assurance

The following steps were taken, as appropriate, during groundwater sampling to assure the quality of samples collected and field data recorded:

- Based upon review of the most recent historical analytical data from each well, a monitoring sequence was determined in order to prevent potential cross-contamination of the monitoring wells. The sequence was determined by the level of contamination in each well, and progressed from least contaminated to most contaminated.

- To assure the accuracy of field parameter measurements, pH and specific conductance monitoring devices were calibrated each day prior to commencing sampling activities. A single-point calibration was used to verify proper function of the specific conductance meter, and a three-point calibration was used to ensure proper pH meter operation. No calibration of the electronic thermometer was required.

- The parameters pH, specific conductance, and temperature were monitored from the purged water. The stabilization variance limits employed during monitoring for these parameters are 0.1 pH units, 10 percent specific conductance, and 1°F. Readings were taken following removal of one well casing volume and each successive well casing volume.

- A bottom-emptying device was used to limit the loss of volatile organic compounds. After the sample was collected, volatile organic analysis (VOA) vials were checked for the presence of headspace. Samples with headspace were emptied and a replacement sample was collected. Each sample was labeled and placed in a chilled cooler for transport to the laboratory.

- Chain-of-custody documentation accompanied all samples collected and submitted to the laboratory. The original chain-of-custody document remained with the samples until analyzed, and a copy of each is retained in AGI's files. The chain-of-custody lists the sample identification number as shown on the sample label, number of sample containers, analyses required, date and time of collection, sampler's initials, and the relinquishing and receiving signatures of persons in control of sample handling following collection until delivery to the laboratory.

- Following each day of sampling, field notes and the sampling record were reviewed to ensure completeness and accuracy of documentation of sampling activities. Review included verification of sample identification numbers, purge volumes, field monitoring parameter stability, and chain-of-custody documentation. Special notations were added regarding outside factors, such as wind direction, ambient temperature, and fugitive odors, which may affect sample integrity.

- Results of analytical testing were reviewed for accuracy and any anomalies that occurred, based upon historical data. The review included evaluating results in conjunction with recorded field data and chain-of-custody documentation, comparing current and historical data, and validating data using chromatograms and associated QA/QC procedures and results supplied by the laboratory.

Containment and Disposal of Purge Water

Purge water removed from the wells during groundwater sampling was contained in 55-gallon Department of Transportation rated drums for later treatment or disposal following receipt of analytical results.

APPENDIX B

AGI TECHNOLOGIES

APPENDIX B

Quality Assurance and Analytical Laboratory Reports

AGI TECHNOLOGIES

QUALITY ASSURANCE REPORT

PROJECT AND SAMPLE INFORMATION

Project Name: Durham Trans/GW Monitor
Project No.: 15,833.002
Lab Name: Inchcape Testing Services, Anametrix Laboratories - San Jose, CA
Lab Number: 9509192
Sample No.: MW4, MW8, MW11, MW10
Matrix: Water

QUALITY ASSURANCE SUMMARY

All data are of known quality and acceptable for use.

ANALYTICAL METHODS

Parameter	Technique	Method
Volatile Organic Compounds (VOCs)	GC/HALL	EPA 8010
BETX	GC/PID	EPA 8020
TPH-G	GC/FID	TPH-G[a]
TPH-Diesel	GC/FID	EPA 8015 Modified-D[a]

a - California Department of Health Services Method.

TIMELINESS

Parameter	Date Sampled	Date Extracted	Date Analyzed	Time Until Extraction	Time Until Analysis
VOCs	09/15/95	NA	09/24/95	NA	9 (14)
BETX	09/15/95	NA	09/22/95	NA	7 (14)
TPH-G	09/15/95	NA	09/22/95	NA	7 (21)
TPH-D	09/15/95	09/26/95	09/27/95	11 (7)	12 (30)

Latest sample analysis/extraction dates have been used to verify holding time compliance.
( ) - Numbers in parentheses indicate recommended holding times in days.
NA - Not applicable.
All samples were extracted and analyzed within recommended holding times.

AGI TECHNOLOGIES

QUALITY ASSURANCE REPORT

PROJECT AND SAMPLE INFORMATION

Project Name:	Durham Trans/GW Monitor
Project No.:	15,833.002
Lab Name:	Inchcape Testing Services, Anametrix Laboratories - San Jose, CA
Lab Number:	9509192
Sample No.:	MW4, MW8, MW11, MW10
Matrix:	Water

FUEL HYDROCARBON CHROMATOGRAMS

TPH-G: Gasoline-range fuel hydrocarbons were detected in samples MW4, MW10, and MW11; the reported detections are consistent with the sample chromatograms.

TPH-D: Diesel-range fuel hydrocarbons were detected in samples MW10 and MW11; the reported detections are consistent with the sample chromatograms.

FIELD QUALITY CONTROL SAMPLES

Field Blank: None collected.

Field Duplicates: None collected.

Rinsate: None collected.

Trip Blank: None collected.

LAB QUALITY CONTROL SAMPLES

Method Blank: No analytes were detected at or above their method reporting limits for the following methods:

EPA 8010
EPA 8020
EPA 8015 Modified-D

Matrix Spikes: Matrix Spike (MS) and MS duplicate percent recoveries and relative percent differences (RPDs) are within Anametrix's control limit criteria for method TPH-G.

AGI TECHNOLOGIES

QUALITY ASSURANCE REPORT

PROJECT AND SAMPLE INFORMATION

Project Name:	Durham Trans/GW Monitor
Project No.:	15,833.002
Lab Name:	Inchcape Testing Services, Anametrix Laboratories - San Jose, CA
Lab Number:	9509192
Sample No.:	MW4, MW8, MW11, MW10
Matrix:	Water

Lab Control Sample: Laboratory control sample (LCS) and LCS duplicate, where applicable, percent recoveries and RPDs are within Anametrix's control limit criteria for the following methods:

EPA 8010
EPA 8020
EPA 8015 Modified-D

Surrogates: All surrogate spike percent recoveries are within Anametrix's control limit criteria for the following methods:

EPA 8010
EPA 8020
EPA 8015 Modified-D

SIGNATURES

Prepared by Kelly Jones Date 11/22/95

Checked by [signature] Date 11/26/95

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MR. DAN HENNINGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9509192
Date Received : 09/15/95
Project ID : 15833-002
Purchase Order: N/A

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9509192- 1	MW4
9509192- 2	MW8
9509192- 3	MW11
9509192- 4	MW10

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Susan Kraska Yeager
Laboratory Director

9-28-95
Date

Project Manager

This report consists of 25 pages.

GC VOA REPORT DESCRIPTION

Organic Analysis Data Sheets (OADS)
OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Inchcape Testing Services ID number.

Surrogate Recovery Summary (SRS)
SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*", and the total number of surrogates outside the limits will be listed in the column labeled "Total Out".

Matrix Spike Recovery Form (MSR)
MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

Qualifiers
Inchcape Testing Services uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- **U** - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- **B** - Indicates that the compound was detected in the associated method blank.
- **J** - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- **E** - Indicates that the reported amount exceeded the linear range of the instrument calibration.
- **D** - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. DAN HENNINGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9509192
Date Received : 09/15/95
Project ID : 15833-002
Purchase Order: N/A
Department : GC
Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9509192- 1	MW4	WATER	09/15/95	8010
9509192- 2	MW8	WATER	09/15/95	8010
9509192- 3	MW11	WATER	09/15/95	8010
9509192- 4	MW10	WATER	09/15/95	8010

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. DAN HENNINGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9509192
Date Received : 09/15/95
Project ID : 15833-002
Purchase Order: N/A
Department : GC
Sub-Department: VOA

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- Samples MW11 and MW10 were analyzed at dilutions due to interfering hydrocarbon peaks.

M. Hosseini 9/26/95
Department Supervisor Date

Kamel G. Kamel 9/26/95
Chemist Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 15833-00
Sample ID : MW4
Matrix : WATER
Date Sampled : 9/15/95
Date Analyzed : 9/24/95
Instrument ID : HP24

Anametrix ID : 9509192-01
Analyst : KK
Supervisor : sh

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	ND	U
75-34-3	1,1-Dichloroethane	.50	ND	U
156-59-2	cis-1,2-Dichloroethene	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-Trichloroethane	.50	ND	U
56-23-5	Carbon tetrachloride	.50	ND	U
107-06-2	1,2-Dichloroethane	.50	2.3	
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-Dichloropropane	.50	ND	U
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	.50	ND	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	.50	ND	U
106-46-7	1,4-Dichlorobenzene	.50	ND	U
95-50-1	1,2-Dichlorobenzene	.50	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 15833-00
Sample ID : MW8
Matrix : WATER
Date Sampled : 9/15/95
Date Analyzed : 9/24/95
Instrument ID : HP24

Anametrix ID : 9509192-02
Analyst : KK
Supervisor : JH

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	ND	U
75-34-3	1,1-Dichloroethane	.50	ND	U
156-59-2	cis-1,2-Dichloroethene	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-Trichloroethane	.50	ND	U
56-23-5	Carbon tetrachloride	.50	ND	U
107-06-2	1,2-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-Dichloropropane	.50	ND	U
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	.50	ND	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	.74	
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	.50	ND	U
106-46-7	1,4-Dichlorobenzene	.50	ND	U
95-50-1	1,2-Dichlorobenzene	.50	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 15833-00
Sample ID : MW11
Matrix : WATER
Date Sampled : 9/15/95
Date Analyzed : 9/24/95
Instrument ID : HP24

Anametrix ID : 9509192-03
Analyst : KK
Supervisor : SL

Dilution Factor : 10.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	10.	ND	U
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	5.0	ND	U
74-83-9	Bromomethane	5.0	ND	U
75-00-3	Chloroethane	5.0	ND	U
75-69-4	Trichlorofluoromethane	5.0	ND	U
76-13-1	Trichlorotrifluoroethane	5.0	ND	U
75-35-4	1,1-Dichloroethene	5.0	ND	U
75-09-2	Methylene chloride	10.	ND	U
156-60-5	trans-1,2-Dichloroethene	5.0	ND	U
75-34-3	1,1-Dichloroethane	5.0	ND	U
156-59-2	cis-1,2-Dichloroethene	5.0	ND	U
67-66-3	Chloroform	5.0	ND	U
71-55-6	1,1,1-Trichloroethane	5.0	ND	U
56-23-5	Carbon tetrachloride	5.0	ND	U
107-06-2	1,2-Dichloroethane	5.0	8.8	
79-01-6	Trichloroethene	5.0	5.6	
78-87-5	1,2-Dichloropropane	5.0	ND	U
75-27-4	Bromodichloromethane	5.0	ND	U
110-75-8	2-Chloroethylvinylether	10.	ND	U
10061-01-5	cis-1,3-Dichloropropene	5.0	ND	U
10061-02-6	trans-1,3-Dichloropropene	5.0	ND	U
79-00-5	1,1,2-Trichloroethane	5.0	ND	U
127-18-4	Tetrachloroethene	5.0	ND	U
124-48-1	Dibromochloromethane	5.0	ND	U
108-90-7	Chlorobenzene	5.0	ND	U
75-25-2	Bromoform	5.0	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	ND	U
541-73-1	1,3-Dichlorobenzene	5.0	ND	U
106-46-7	1,4-Dichlorobenzene	5.0	ND	U
95-50-1	1,2-Dichlorobenzene	5.0	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 15833-00
Sample ID : MW10
Matrix : WATER
Date Sampled : 9/15/95
Date Analyzed : 9/24/95
Instrument ID : HP24

Anametrix ID : 9509192-04
Analyst : LL
Supervisor : JL

Dilution Factor : 5.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	5.0	ND	U
74-87-3	Chloromethane	5.0	ND	U
75-01-4	Vinyl chloride	2.5	ND	U
74-83-9	Bromomethane	2.5	ND	U
75-00-3	Chloroethane	2.5	ND	U
75-69-4	Trichlorofluoromethane	2.5	ND	U
76-13-1	Trichlorotrifluoroethane	2.5	ND	U
75-35-4	1,1-Dichloroethene	2.5	ND	U
75-09-2	Methylene chloride	5.0	ND	U
156-60-5	trans-1,2-Dichloroethene	2.5	ND	U
75-34-3	1,1-Dichloroethane	2.5	ND	U
156-59-2	cis-1,2-Dichloroethene	2.5	ND	U
67-66-3	Chloroform	2.5	ND	U
71-55-6	1,1,1-Trichloroethane	2.5	ND	U
56-23-5	Carbon tetrachloride	2.5	ND	U
107-06-2	1,2-Dichloroethane	2.5	ND	U
79-01-6	Trichloroethene	2.5	ND	U
78-87-5	1,2-Dichloropropane	2.5	ND	U
75-27-4	Bromodichloromethane	2.5	ND	U
110-75-8	2-Chloroethylvinylether	5.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	2.5	ND	U
10061-02-6	trans-1,3-Dichloropropene	2.5	ND	U
79-00-5	1,1,2-Trichloroethane	2.5	ND	U
127-18-4	Tetrachloroethene	2.5	ND	U
124-48-1	Dibromochloromethane	2.5	ND	U
108-90-7	Chlorobenzene	2.5	ND	U
75-25-2	Bromoform	2.5	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	ND	U
541-73-1	1,3-Dichlorobenzene	2.5	ND	U
106-46-7	1,4-Dichlorobenzene	2.5	ND	U
95-50-1	1,2-Dichlorobenzene	2.5	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 15833-
Sample ID : VBLKB1
Matrix : WATER
Date Sampled : 0/ 0/ 0
Date Analyzed : 9/23/95
Instrument ID : HP24

Anametrix ID : BS2303I1
Analyst : KK
Supervisor : DL

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	ND	U
75-34-3	1,1-Dichloroethane	.50	ND	U
156-59-2	cis-1,2-Dichloroethene	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-Trichloroethane	.50	ND	U
56-23-5	Carbon tetrachloride	.50	ND	U
107-06-2	1,2-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-Dichloropropane	.50	ND	U
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	.50	ND	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	.50	ND	U
106-46-7	1,4-Dichlorobenzene	.50	ND	U
95-50-1	1,2-Dichlorobenzene	.50	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 15833-00
Matrix : LIQUID

Anametrix ID : 9509192
Analyst : KK
Supervisor : JR

	SAMPLE ID	SU1	SU2	SU3
1	VBLKB1	76	96	96
2	MW4	76	97	104
3	MW8	76	98	100
4	MW11	78	97	102
5	MW10	77	96	103
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

	QC LIMITS
SU1 = Bromochloromethane	(64-102)
SU2 = 1-Chloro-2-fluorobenze	(78-117)
SU3 = 2-Bromochlorobenzene	(73-112)

* Values outside of Anametrix QC limits

EPA METHOD 8010
INCHCAPE TESTING SERVICES - ANAMETRIX
(408) 432-8192

LABORATORY CONTROL SAMPLE

Sample ID: LAB CONTROL SAMPLE
Batch: 9192
Matrix: WATER
Date Analyzed: 9/23/95

Laboratory ID: MS2302I1
Instrument ID: HP24
Concentration Units: ug/L
Analyst: KC
Supervisor:

COMPOUND NAME	SPIKE AMOUNT	LCS REC	%REC LCS	%RECOVERY LIMITS
Trichlorotrifluoroethane	10	10.8	108%	65-116
1,1-Dichloroethene	10	10.1	101%	64-125
trans-1,2-Dichloroethene	10	9.8	98%	77-113
1,1-Dichloroethane	10	10.7	107%	85-129
cis-1,2-Dichloroethene	10	10.8	108%	78-130
1,1,1-Trichloroethane	10	9.5	95%	83-125
Trichloroethene	10	10.1	101%	76-124
Tetrachloroethene	10	10.1	101%	80-118
Chlorobenzene	10	9.6	96%	81-130
1,3-Dichlorobenzene	10	9.4	94%	82-115
1,4-Dichlorobenzene	10	9.5	95%	85-122
1,2-Dichlorobenzene	10	9.3	93%	86-122

SURROGATE NAME	SPIKE AMT	SURR. REC	% REC	% REC LIMITS
Bromochloromethane	5	3.9	78%	64-102
1-Chloro-2-fluorobenzene	5	5.4	108%	78-117
2-Bromochlorobenzene	5	5.1	102%	73-112

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. DAN HENNINGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9509192
Date Received : 09/15/95
Project ID : 15833-002
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9509192- 1	MW4	WATER	09/15/95	TPHd
9509192- 2	MW8	WATER	09/15/95	TPHd
9509192- 3	MW11	WATER	09/15/95	TPHd
9509192- 4	MW10	WATER	09/15/95	TPHd
9509192- 1	MW4	WATER	09/15/95	TPHgBTEX
9509192- 2	MW8	WATER	09/15/95	TPHgBTEX
9509192- 3	MW11	WATER	09/15/95	TPHgBTEX
9509192- 4	MW10	WATER	09/15/95	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. DAN HENNINGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9509192
Date Received : 09/15/95
Project ID : 15833-002
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Cheryl Balmon 9/26/95
Department Supervisor Date

Reggie Dawson 9/26/95
Chemist Date

Organic Analysis Data Sheet

Total Petroleum Hydrocarbons as Gasoline with BTEX

ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9509192 | Client Project ID : 15833-002

Matrix : WATER | Units : ug/L

Compound Name	Method Reporting Limit*	Client ID MW4 Lab ID 9509192-01	Client ID MW8 Lab ID 9509192-02	Client ID MW11 Lab ID 9509192-03	Client ID MW10 Lab ID 9509192-04	Client ID Lab ID METHOD BLANK
Benzene	0.50	2.5	ND	130	9.9	ND
Toluene	0.50	0.85	ND	ND	ND	ND
Ethylbenzene	0.50	ND	ND	180	49	ND
Total Xylenes	0.50	ND	ND	130	4.9	ND
TPH as Gasoline	50	110	ND	9600	2100	ND
Surrogate Recovery		96%	109%	106%	95%	103%
Instrument ID		HP6	HP6	HP6	HP6	HP6
Date Sampled		09/15/95	09/15/95	09/15/95	09/15/95	N/A
Date Analyzed		09/20/95	09/20/95	09/20/95	09/22/95	09/19/95
RLMF		1	1	50	5	1
Filename Reference		FPS19201.D	FPS19202.D	FRS19203.D	FQS19204.D	BS1903E1.D

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Davisson 9/26/95
Analyst Date

Cheryl Balman 9/26/95
Supervisor Date

Issued on 9/26/95 @ 12:29 pm

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9509192 Client Project ID : 15833-002

Matrix : WATER Units : ug/L

Compound Name	Method Reporting Limit*	Client ID	Client ID	Client ID	Client ID	Client ID
		Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
		METHOD BLANK	METHOD BLANK			
Benzene	0.50	ND	ND			
Toluene	0.50	ND	ND			
Ethylbenzene	0.50	ND	ND			
Total Xylenes	0.50	ND	ND			
TPH as Gasoline	50	ND	ND			
Surrogate Recovery		110%	112%			
Instrument ID		HP6	HP6			
Date Sampled		N/A	N/A			
Date Analyzed		09/20/95	09/22/95			
RLMF		1	1			
Filename Reference		BS2001E1.D	BS2201E1.D			

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Peggie Dawson 9/26/95
Analyst Date

Cheryl Bellman 9/26/95
Supervisor Date

Issued on 9/26/95 @ 10:41 am

Matrix Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Project ID : 15833-002
Sample ID : MW10
Matrix : WATER
Date Sampled : 09/15/95

Laboratory ID : 9509192-04
Analyst : RD
Supervisor : [illegible]
Instrument ID : HP6
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Gasoline	2500	2100	72%	80%	48-149	-11%	30
Surrogate Recovery		95%	88%	102%			
Date Analyzed		09/22/95	09/22/95	09/22/95			
Multiplier		5	5	5			
Filename Reference		FQS19204.D	FMS19204.D	FDS19204.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as BTEX
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP6
Matrix : LIQUID

Analyst : AD
Supervisor : ✓
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Benzene	10	90%	52-133
Toluene	10	90%	57-136
Ethylbenzene	10	93%	56-139
Total Xylenes	10	92%	56-141
Surrogate Recovery		104%	61-139
Date Analyzed		09/20/95	
Multiplier		1	
Filename Reference		MS1902E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as BTEX
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP6
Matrix : LIQUID

Analyst : RO
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Benzene	10	98%	52-133
Toluene	10	99%	57-136
Ethylbenzene	10	106%	56-139
Total Xylenes	10	104%	56-141
Surrogate Recovery		104%	61-139
Date Analyzed		09/20/95	
Multiplier		1	
Filename Reference		MS2001E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP6
Matrix : LIQUID

Analyst : AD
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	88%	67-127
Surrogate Recovery		106%	61-139
Date Analyzed		09/22/95	
Multiplier		1	
Filename Reference		MS2201E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. DAN HENNINGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9509192
Date Received : 09/15/95
Project ID : 15833-002
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9509192- 1	MW4	WATER	09/15/95	TPHd
9509192- 2	MW8	WATER	09/15/95	TPHd
9509192- 3	MW11	WATER	09/15/95	TPHd
9509192- 4	MW10	WATER	09/15/95	TPHd
9509192- 1	MW4	WATER	09/15/95	TPHgBTEX
9509192- 2	MW8	WATER	09/15/95	TPHgBTEX
9509192- 3	MW11	WATER	09/15/95	TPHgBTEX
9509192- 4	MW10	WATER	09/15/95	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. DAN HENNINGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9509192
Date Received : 09/15/95
Project ID : 15833-002
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- The concentrations reported as diesel for samples MW10 and MW11 are primarily due to the presence of a lighter petroleum product of hydrocarbon range C6-C14, possibly gasoline.

Department Supervisor — Date 9/27/95

Chemist — Date 9/27/95

TOTAL PETROLEUM HYDROCARBONS AS DIESEL

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

DATA SUMMARY FORM

Anametrix Workorder:	9509192	Client Project ID:	15833-002
Matrix:	WATER	Date Released:	9/27/95
Date Extracted:	9/26/95	Concentration Units:	ug/L
Instrument ID:	HP29		

Anametrix ID	Client ID	Date Sampled	Date Analyzed	Dilution Factor	Reporting Limit	Amount Found	Surrogate Recovery
9509192-01	MW4	9/15/95	9/26/95	1	50	ND	67%
9509192-02	MW8	9/15/95	9/26/95	1	50	ND	102%
9509192-03	MW11	9/15/95	9/26/95	1	50	550	102%
9509192-04	MW10	9/15/95	9/27/95	1	50	1900	101%
BS2611F9	Method Blank	------	9/26/95	1	50	ND	96%

ND: Not detected at or above the reporting limit for the method.
TPHd: Total Petroleum Hydrocarbons as C10-C28 is determined by GC/FID (modified EPA Method 8015) following sample extraction by EPA Method 3510.
Surrogate recovery quality control limits for o-terphenyl are 67-103%.
All testing procedures follow California Department of Health Services approved methods.

Doshi 9/27/95
Analyst Date

Cheryl Balman 9/27/95
Supervisor Date

TOTAL PETROLEUM HYDROCARBONS AS DIESEL

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	15833-002	Anametrix ID:	M/NS2611F9
Matrix:	WATER	Date Released:	9/27/95
Date Extracted:	9/26/95	Instrument ID:	HP29
Date Analyzed:	9/26/95	Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	% REC LCS	LCSD CONC	%REC LCSD	RPD
Diesel	1250	1200	96%	1200	96%	0%
o-Terphenyl			103%		98%	

Quality control limits for LCS/LCSD recovery are 38-96%

Quality control limits for RPD(relative percent difference) are +/- 18%.

Quality control limits for o-terphenyl recovery are 67-103%.

7810

AGI TECHNOLOGIES

10/5 — 16 — 18

9509192

CHAIN-OF-CUSTODY

Date 9/15/95 Page 1 of 1

PROJECT INFORMATION

Project Manager: DAN HENNINGER

Project Name: DURHAM

Project Number: 15833-002

Site Location: HAYWARD CA. Sampled By: ACM/DH

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)

Disposal Method: _____

Disposed by: _____ Disposal Date: _____

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☒AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

	SAMPLE ID	DATE	TIME	MATRIX	LAB ID
1	MW4	9/15/95	1120	H_2O	
2	MW8	"	1140	H_2O	
3	MW11	"	1240	H_2O	
4	MW10	"	1255	H_2O	

	PETROLEUM HYDROCARBONS						ORGANIC COMPOUNDS								PESTS/PCB's			METALS							LEACHING TESTS				OTHER			
	TPH-ID State:	TPH-G State: CA	TPH-D State: CA	TPH Special Instructions	418.1 State:	8015M	8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only	8240 GCMS Volatiles	8270 GCMS Semivol.	8310 HPLC PAHs	8040 Phenols	DWS - Volatiles and Semivol.	8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/pest	Selected metals: list	Total Lead (Wa)	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals				NUMBER OF CONTAINERS
1		X	X				X	X	X					1 VOA w/ bubbles																		7
2		X	X				X	X	X					1 VOA w/ bubbles																		7
3		X	X				X	X	X																							8
4		X	X				X	X	X																							8

LAB INFORMATION

Lab Name: Inchcape Testing Serv.

Lab Address: Anametrix Lab

1961 Concourse Dr. Suite E San Jose CA.

Via: Courier

SAMPLE RECEIPT

Total Number of Containers:

Chain of Custody Seals: Y/N/NA

Received Intact?: Y/N/NA

Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions: CALL with instructions for Additional Analyses 206-453-8383 contact DAN HENNINGER

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Allen Moore Time:	Signature: Time: 1650	Signature: Time:
Printed Name: Allen Moore Date: 9/15/95	Printed Name: P. BINS Date: 9.15.95	Printed Name: Date
Company: AGI	Company: ITS/A	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time: 1535	Signature: Time:	Signature: Time: 1535
Printed Name: PETER BINS Date: 9.15.95	Printed Name Date:	Printed Name Date 9/15/95
Company: INCHCAPE/ANAMETRIX	Company	Company ITS

AGI OFFICES: Bellevue: (206) 453-8383 Portland: (503) 232-1800 Gig Harbor: (206) 851-5562 Oakland: (510) 238-4590

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

Rev. 4/94

Inchcape Testing Services
Anametrix Laboratories

SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9509192 CLIENT PROJECT ID: 15833-002

COOLER

Shipping slip (airbill, etc.) present?	YES	NO	(N/A)
If YES, enter carrier name and airbill # : ____			
Custody Seal on the outside of cooler?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Temperature of sample (s) within range?	YES	(NO)	N/A
List temperature of cooler (s): 12°C			

SAMPLES

Chain of custody seal present for each container?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested?	(YES)	NO	
Condition of containers: INTACT ✓ BROKEN ____			
If NO, were samples transferred to proper container? ____			
Were VOA containers received with zero headspace?	YES	(NO)	N/A
If NO, was it noted on the chain of custody? YES			
Were container labels complete? (ID, date, time preservative, etc.)	(YES)	NO	
Were samples preserved with the proper preservative?	(YES)	NO	N/A
If NO, was the proper preservative added at time of receipt? ____			
pH check of samples required at time of receipt?	YES	(NO)	
If YES, pH checked and recorded by: ____			
Sufficient amount of sample received for methods requested?	(YES)	NO	
If NO, has the client or lab project manager been notified? ____			
Field blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)
Trip blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)

CHAIN OF CUSTODY

Chain of custody received with samples?	(YES)	NO
Has it been filled out completely and in ink?	(YES)	NO
Sample ID's on chain of custody agree with container labels?	(YES)	NO
Number of containers indicated on chain of custody agree with number received?	(YES)	NO
Analysis methods clearly specified?	(YES)	NO
Sampling date and time indicated?	(YES)	NO
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	(YES)	NO
Turnaround time? REGULAR ✓ RUSH ____		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: SP Date: 9/15/95 Project Manager: CWL Date: 9/28/95

AGI TECHNOLOGIES

CHAIN-OF-CUSTODY

Date 9/15/95 Page 1 of 1

PROJECT INFORMATION

Project Manager: DAN HENNINGER
Project Name: DURHAM
Project Number: 15933-002
Site Location: HAYWARD CA Sampled By: ACM/DH

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☒AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
MW4	9/15/95	1120	H_2O	
MW8	"	1140	H_2O	
MW11	"	1240	H_2O	
MW10	"	1255	H_2O	

PETROLEUM HYDROCARBONS						ORGANIC COMPOUNDS							PESTS/PCB's			METALS						LEACHING TESTS				OTHER				NUMBER OF CONTAINERS
TPH-ID State:	TPH-G State: CA	TPH-D State: CA	TPH Special Instructions	418.1 State:	8015M	8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only	8240 GCMS Volatiles	8270 GCMS Semivol.	8310 HPLC PAHs	8040 Phenols	DWS - Volatiles and Semivol.	8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/pest	Selected metals: list	Total Lead (Wa)	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals				
	X	X					X	X																						7
	X	X					X	X																						7
	X	X					X	X																						8
	X	X					X	X																						9

LAB INFORMATION

Lab Name: Inchcape Testing Serv.
Lab Address: Analytical Lab
1701 Concourse Dr. Suite E San Jose CA
Via: Courier

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒Standard ☐24 hr. ☐48 hr. ☐72 hr. ☐1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions: CALL with Instructions For Additional Analysis 206-453-8383 Contact DAN HENNINGER

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Allen Moore Time:	Signature: Time:	Signature: Time:
Printed Name: Allen Moore Date: 9/15/95	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time: 1535	Signature: Time:	Signature: Time:
Printed Name: Peter Bins Date: 9.15.95	Printed Name: Date:	Printed Name: Date
Company: Inchcape/Analytix	Company:	Company

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

INVOICE

NUMBER	PAGE
38347	1
DATE	
Sep 28 95	

SOLD TO
ATTN : ACCOUNTS PAYABLE
AGI TECHNOLOGIES
P.O. BOX 3885

BELLEVUE, WA
98009

SHIP TO SAME

ORDERING	ORDER DATE	CUSTOMER NO.	SALES PERSON	PURCHASE ORDER NO.	SHIP VIA	TERMS
	Sep 15 95	103	SNH	N/A	REGULAR MAIL	NET 30

QTY. ORDERED	QTY. SHIPPED	QTY. B/O	ITEM NUMBER	DESCRIPTION	UNIT PRICE	U/M	EXTENDED PRICE
4.00			B/8010/	HALOGENATED VOLATILES	75.00		300.00
4.00			B/ TEH/	TPH - DIESEL	65.00		250.00
4.00			B/ TVH/BTEX	TPH - GAS\BTEX	65.00		260.00
							820.00

COPY

COMMENTS:
A 1 1/2% MONTHLY SERVICE CHARGE WILL BE ADDED TO ALL INVOICES OUTSTANDING PAST THIRTY (30) DAYS.

WORKORDER NO.9509192 ** WATER
PROJECT NO.15833-002 ** DAN HENNINGER

MISC. CHARGES	
SALES TAX	
FREIGHT	
TOTAL ▶	$ 820.00

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

FACSIMILE TRANSMITTAL COVER SHEET

TO: DATE: 9/18

Name: Allen

Company: A&I Technologies

Fax #: 206-646-9523

FROM:

Name: Cristina Velasquez Rayburn

Total Number of Pages (INCLUDING COVER): 2
If all pages are not received, please notify sender at (408) 432-8192.

DID YOU KNOW THAT:

INCHCAPE TESTING SERVICES ENVIRONMENTAL LABORATORIES is a group of six laboratories in the United States and one in the United Kingdom.

COMMENTS:

ITS Anametrix Laboratories, CA (408)432-8192
ITS NDRC Laboratories, Dallas, TX (214)238-5501
ITS NDRC Laboratories, Houston, TX (713) 661-8150
ITS Aquatec Laboratories, VT (802)655-1203
ITS Aquatec Laboratories, MA (508)990-3400
ITS West-Paine Laboratories, LA (504)769-4900
ITS Environmental Laboratories, St. Helens, UK (44) 0744-611553

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AGI TECHNOLOGIES

(10/5) (16) (15)

9509192

CHAIN-OF-CUSTODY

Date 9/15/95 Page 1 of 1

Laboratory Number:

PROJECT INFORMATION

Project Manager: DAN HENNINGER
Project Name: DURHAM
Project Number: 15833-002
Site Location: HAYWARD CA. Sampled By: ARM/DH

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐ SW-846 ☐ CLP ☐ Screening ☒ AGI Std. ☐ Special

ANALYSIS REQUEST

PETROLEUM HYDROCARBONS: TPH-ID State; TPH-G State: CA; TPH-D State: CA; TPH Special Instructions; 418.1 State; 8015M
ORGANIC COMPOUNDS: 8010 Halogenated VOCs; 8020 Aromatic VOCs; 8020M - BETX only; 8240 GCMS Volatiles; 8270 GCMS Semivol.; 8310 HPLC PAHs; 8040 Phenols; DWS - Volatiles and Semivol.
PESTS/PCB's: 8080 OC Pest/PCBs; 8080M PCBs only; 8140 OP Pesticides; 8150 OC Herbicides; DWS - Herb/pest
METALS: Selected metals: list; Total Lead (Wa); Organic Lead (Ca); TCL Metals (23); Priority Poll. Metals (13); DWC Metals; MFSP - Metals (Wa)
LEACHING TESTS: TCLP - Volatiles (ZHE); TCLP - Semivolatiles; TCLP - Pesticides; TCLP - Metals
OTHER

[illegible]

	SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TPH-G	TPH-D	8010	8020	8020M	Notes	NUMBER OF CONTAINERS
1	MW4	9/15/95	1120	H_2O		X	X	X	X	X	1 voa w/ bubbles	2
2	MW8	"	1140	H_2O		X	X	X	X	X	1 voa w/ bubbles	7
3	MW11	"	1240	H_2O		X	X	X	X	X		8
4	MW10	"	1255	H_2O		X	X	X	X	X		8

LAB INFORMATION

Lab Name: Inchcape Testing Serv.
Lab Address: ANAMETRIX LAB
1961 Concourse Dr. Suite E San Jose CA.
Via: Courier

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions: CALL with INSTRUCTIONS FOR Additional Analyses 206-453-8383 Contact DAN HENNINGER

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Al Moore Time:	Signature: [signature] Time: 1650	Signature: Time:
Printed Name: Allen Moore Date: 9/15/95	Printed Name: P. BINS Date: 9.15.95	Printed Name: Date:
Company: AGI	Company: ITS/A	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature: [signature] Time: 1535	Signature: Time:	Signature: [signature] Time: 1535
Printed Name: PETER BINS Date: 9.15.95	Printed Name: Date:	Printed Name: Jose Perez Date: 9/15/95
Company: INCHCAPE/ANAMETRIX	Company:	Company: ICS