LIMITED PHASE II
ENVIRONMENTAL SITE ASSESSMENT
GROUNDWATER SAMPLING AND ANALYSIS
AIRPORT 37 INDUSTRIAL PARK
LOTS 8 AND 10
ARLINGTON, WASHINGTON

E-7062-2

March 6, 1996

PREPARED FOR
BBS INTERNATIONAL, INC.

Deborah J. Kristof
Environmental Scientist

Robert S. Levinson, P.E.
Principal

Earth Consultants, Inc.
1805 - 136th Place Northeast, Suite 201
Bellevue, Washington 98005
(206) 643-3780

Earth Consultants Inc.
Geotechnical Engineers, Geologists & Environmental Scientists

March 6, 1996

E-7062-2

BBS International, Inc.
720 Olive Way, Suite 1025
Seattle, Washington 98101

Attention: Mr. Melvin L. Brady

Subject: **Limited Phase II Environmental Site Assessment**
Airport 37 Industrial Park, Lots 8 and 10
Arlington, Washington

Reference: Earth Consultants, Inc.
Phase I Environmental Site Assessment
Airport 37 Industrial Park, Lots 8, 9, 10
Arlington, Washington
E-7062-2, dated January 15, 1996

Dear Mr. Brady:

The Environmental Services Division of Earth Consultants, Inc. (ECI) provided environmental services at Lots 8 and 10 of Airport 37 Industrial Park located in Arlington, Washington for BBS International, Inc. ECI's environmental services included the preliminary evaluation of existing groundwater conditions beneath Lots 8 and 10 for the possible presence of arsenic and manganese. This work was performed in accordance with our February 9, 1996 proposal, which was authorized by Mr. Melvin L. Brady on February 14, 1996. This report presents all documentation for this project.

We appreciate the opportunity to provide environmental consulting services to you. If you have any questions, or if we may be of further service, please contact us.

Respectfully submitted,

EARTH CONSULTANTS, INC.

Deborah J. Kristof
Environmental Scientist

Robert S. Levinson, P.E.
Principal

DJK/RSL/kml

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1.0 INTRODUCTION

This report summarizes the results of our preliminary assessment of groundwater conditions beneath the subject site. The purpose of the limited Phase II site assessment is to evaluate the potential for the Baxter Woodwaste Landfill, located east of the subject site, to have impacted groundwater quality beneath the subject site. The subject site consists of Lots 8, 9, and 10 of Airport 37 Industrial Park located in Arlington, Washington. The site is currently undeveloped. A wooden shack is located on Lot 10; the remainder of the site is vacant of structures. The approximate site location is shown on the Vicinity Map, Plate 1. The general site layout is shown on the Site Plan, Plate 2.

The referenced Phase I Environmental Assessment (ESA) identified one potential off-site source of contamination at the subject site, the Baxter Woodwaste Landfill site. The groundwater flow direction at the adjacent Baxter Woodwaste Landfill site has been determined to be from the southeast toward the northwest and the subject site. Groundwater analytical test data, included in the Snohomish County Heath Department's file on the Baxter Woodwaste site, indicate that manganese and arsenic are present in the groundwater beneath the woodwaste landfill site. The metal concentrations measured at the Baxter Woodwaste Site are greater than the cleanup levels established by the Washington State Department of Ecology's (Ecology) Model Toxics Control Act (Chapter 173-340 WAC). The purpose of this Limited Phase II Site Assessment was to install two groundwater monitoring wells at the subject site and collect groundwater samples for chemical analysis of manganese and arsenic.

1.1 Scope of Work

ECI's services included drilling two borings at the site, completing each boring as a monitoring well, and collecting groundwater samples for laboratory analysis. Specifically, ECI's services included the following services.

- Complete two soil borings on the subject site to approximately fifty-five feet below the existing grade.
- Install a two-inch diameter monitoring well in each of the two soil borings.
- Collect one groundwater sample from each of the two monitoring wells.
- Analyze the groundwater samples for total arsenic by EPA Method 7060, and total and dissolved manganese by EPA Method 7460.
- Provide a report which documents our field study and the results of analytical testing.

2.0 SITE CONDITIONS

The rectangular shaped site consists of three lots, Lot 8, Lot 9, and Lot 10, at the Airport 37 Industrial Park. The site encompasses approximately five and six-tenths (5.6) located in the Northeast Quarter of Section 15, Township 31 North, Range 5 East. The site is relatively level and has a ground surface elevation of approximately 120 feet above the mean sea level of Puget Sound.

The subject property is currently undeveloped and is covered with grass, low to medium tall scotch broom and brush, sparse blackberry vines, and very small to small deciduous and pine trees. A small skid-mounted, wooden shed is present near the southwest corner of Lot 10. Shallow drainage swales, approximately ten (10) feet wide by three (3) feet deep, are situated along the west and south borders of Lot 8, and along the common boundary between Lots 8 and 9, and Lots 9 and 10.

The approximate location of the subject site is shown on the Vicinity Map, Plate 1. A general layout of the site is shown on the Site Plan, Plate 2.

The subject property is bordered by 199th Street Northeast to the north. The site is bound on the east and west by 63rd Avenue Northeast, and 60th Avenue Northeast, respectively. Utilities, including sanitary sewer lines, domestic water lines, and electrical power lines, are located underground along 199th Street Northeast and 60th Avenue Northeast. Vacant, grass and brush covered properties, similar to the subject property, are situated north and west across the paved roadways of 199th Street Northeast and 60th Avenue Northeast. The North Snohomish County Solid Waste Transfer Station and brush-covered, vacant property border the subject site to the south. The Baxter North Woodwaste Landfill occupies the adjacent property east of the subject site.

3.0 SUBSURFACE CONDITIONS

3.1 Geology

Based on observations made from the two exploratory borings completed for this study, the site is underlain by poorly graded medium dense to dense sand. The Geologic Map of Snohomish County identifies the geological unit as Quaternary Marysville Sand Member, which consists of well-drained, stratified to massive glacial outwash sand, some fine gravel, and some areas of silt and clay. The sediments were deposited by meltwater of the Vashon glacier. The unit is at least 20 meters thick.

Soils encountered during drilling are shown on the boring logs, which are included in Appendix A.

3.2 Groundwater

Groundwater levels were measured in the two monitoring wells on February 21, 1996, two days after the wells were installed. Groundwater was measured at a depth of approximately 39.5 feet below ground surface in Well MW-1 and at approximately 45 feet below ground surface in Well MW-2.

Based on topography in the general vicinity of the subject site, local surface drainage features, and confirmed groundwater flow information included in the Snohomish County Health Department's file for the Baxter Woodwaste Landfill site, the inferred groundwater flow direction at the subject site is from the southeast toward the northwest.

4.0 MONITORING WELL INSTALLATION

Two borings were drilled on the subject site on February 19, 1996. The borings were drilled using hollow stem auger drilling equipment and were completed at depths of 55 feet (B-1) and 51 feet (B-2) below ground surface. A two-inch diameter groundwater monitoring well was installed in each boring immediately following drilling. Monitoring Well MW-1 is located near the eastern property boundary of Lot 10, Monitoring Well MW-2 is located near the northwest corner of Lot 8 (Site Plan, Plate 2).

Lithologic samples, used for geologic logging purposes, were collected at ten-foot intervals. Borehole lithology was described by an ECI field geologist according to the United Soil Classification System. All recovered samples were field screened for organic chemical vapors with a portable photoionizaton detector (PID). Organic vapor concentrations were not detected above background levels. The headspace field screening readings are recorded on the boring logs (Appendix A).

5.0 GROUNDWATER SAMPLING AND ANALYSIS

The groundwater monitoring wells were developed (pumped to remove particulates) on February 21, 1996. Approximately 55 gallons of water was removed from Well MW-1 and approximately 40 gallons of water was removed from well MW-2 during development. The development water was placed in labeled 55-gallon drums, which are stored adjacent to the monitoring wells.

Groundwater samples were collected from the two wells immediately following well development. One groundwater sample from each well was submitted for laboratory analysis for total arsenic, total manganese, and dissolved manganese. Arsenic was not detected in the groundwater samples.

Total manganese was detected at a concentration of 0.65 milligrams per liter (mg/l) in the groundwater sample collected from Well MW-1 and at 0.12 mg/l in the groundwater sample collected from Well MW-2. Dissolved manganese was detected at a concentration of 0.13 mg/l in the groundwater sample collected from Well MW-1. Dissolved manganese was not detected in the groundwater sample collected from Well MW-2. The concentrations of total and dissolved manganese detected in the groundwater samples collected from the two wells is significantly less than the groundwater cleanup level of 2.240 mg/l, established by the Washington Department of Ecology under Method B of the Model Toxics Control Act (Chapter 173-340 WAC).

The laboratory data sheets for the groundwater samples are included as Appendix B.

6.0 CONCLUSIONS

Arsenic was not detected in the two groundwater samples. The concentrations of total and dissolved manganese detected in the groundwater samples collected from the two wells is significantly less than the groundwater cleanup level of 2.240 mg/l established by the Washington Department of Ecology under Method B of the Model Toxics Control Act (Chapter 173-340 WAC). Based on the chemical analytical data, additional environmental assessment or site cleanup is not required.

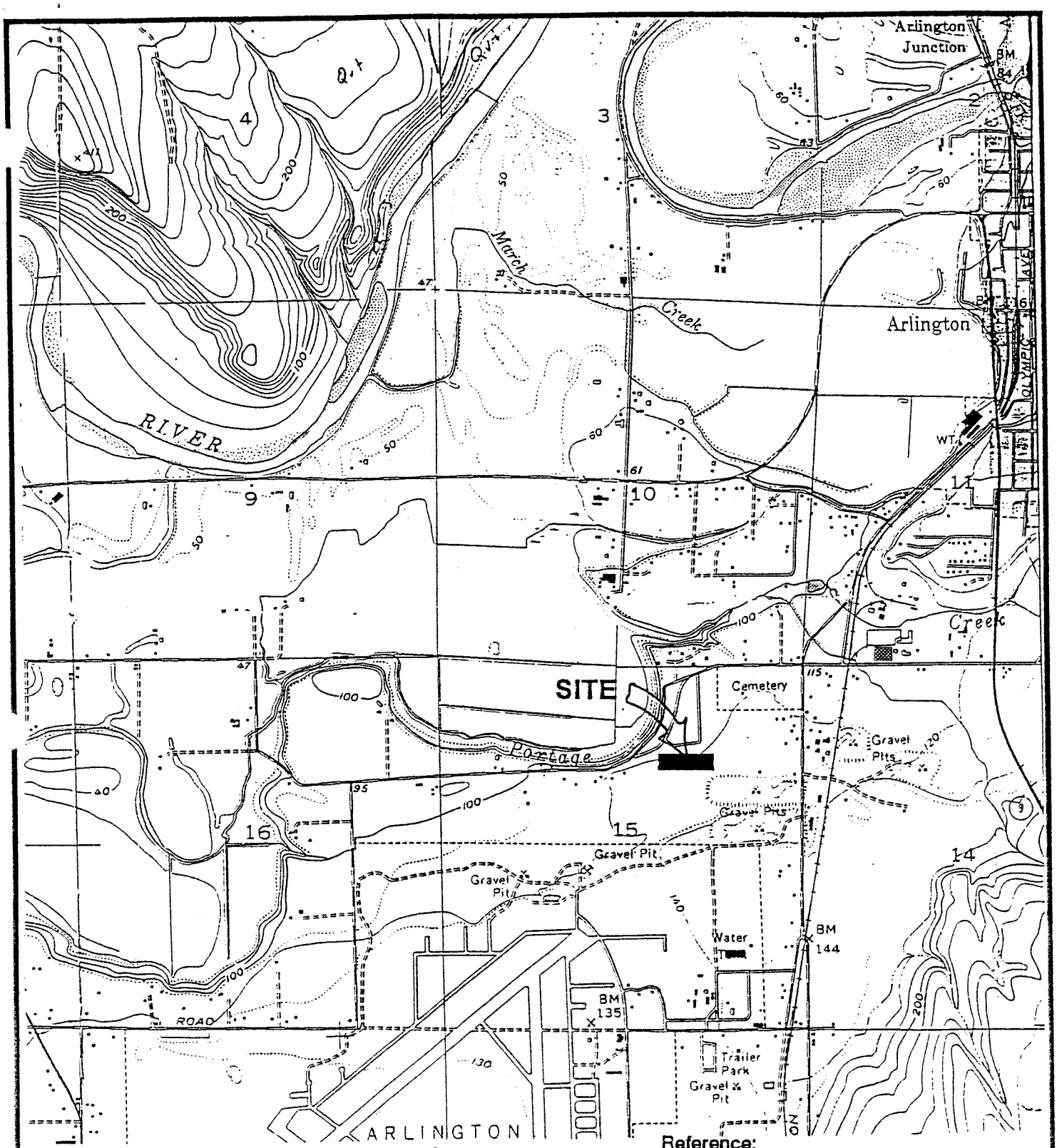
Based on the analytical data for the groundwater samples, there are no special handling or disposal requirements for the development water removed from the two wells and placed in two 55-gallon drums. The water in these two drums may be discharge to the ground surface and allowed to infiltrated into the ground surface.

The monitoring wells are protected within locked, above ground surface monuments. The monitoring wells may remain on-site for any future groundwater monitoring. The monitoring wells must be abandoned by a Washington State licensed well driller if they are in danger of being broken or destroyed by future site construction activities, or when they are no longer required for use.

7.0 STANDARD LIMITATIONS

ECI has prepared this report in a professional manner, using the level of skill and care normally exercised for similar projects under similar conditions by competent environmental consultants currently practicing in this area and in accordance with the terms and conditions set forth in ECI's proposal dated February 9, 1996. ECI believes the conclusions stated herein to be factual, but no guarantee is made or implied.

This report is for the exclusive use of BBS International, Inc. and their clients and representatives. After completion of this present work, any future consultations or other professional services to others (third parties) related to this project requires written authorization from BBS International, Inc. Any such ECI service to third parties is new work requiring formal agreement with the third party and will be performed in accordance with the formal agreement.

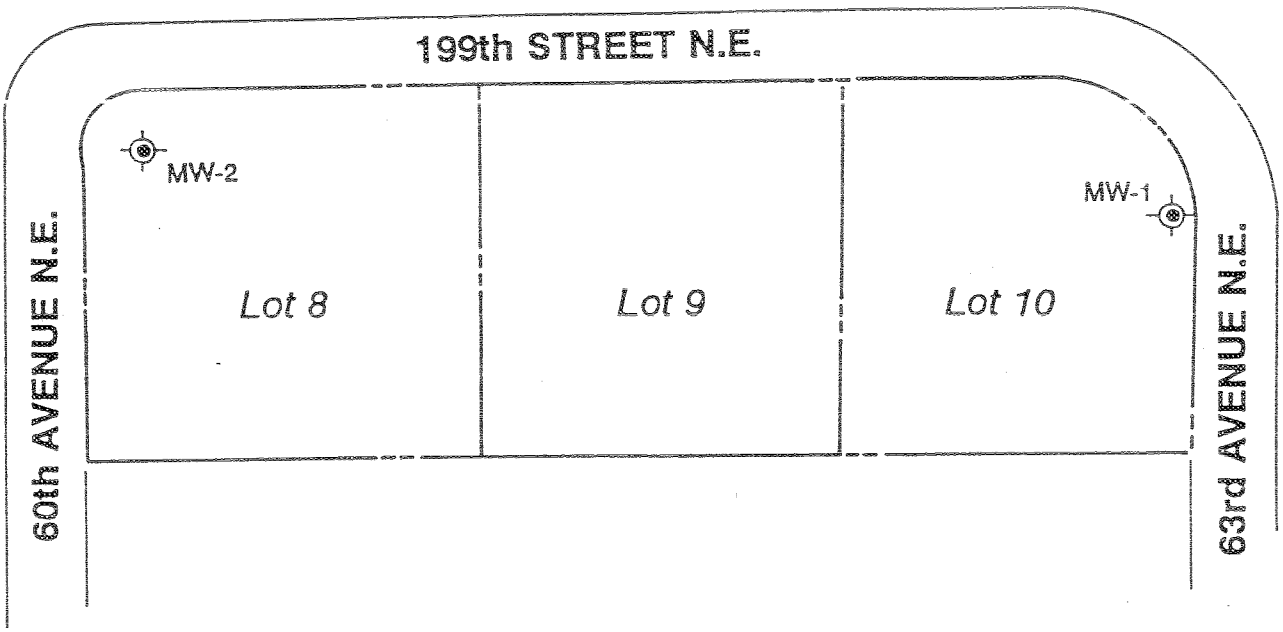


Reference:
Arlington West Quadrangle
Washington - Snohomish Co.
7.5 Minute Series (Topographic)
By U.S. Geological Survey
Dated 1956 (Photorevised 1968)

Earth Consultants Inc.
Geotechnical Engineers, Geologists & Environmental Scientists

Vicinity Topographic Map
Airport 37 Industrial Park - Lots 8, 9 & 10
Arlington, Washington

Proj. No. 7062-2	Drwn. GLS	Date Feb. '96	Checked DK	Date 2/28/96	Plate 1



LEGEND

MW-1 ⊗ Approximate Monitor Well Location and Number

N

Not-To-Scale

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Site Plan
Airport 37 Industrial Park - Lots 8, 9 & 10
Arlington, Washington

Proj. No. 7062-2	Drwn. GLS	Date Feb. '96	Checked DK	Date 2/28/96	Plate 2

APPENDIX A

Sampling and Field Screening Methodology

Soil Boring and Monitoring Well Logs

Two monitoring wells were installed at the site using 7.25-inch outside diameter (OD) hollow stem augers and drilling equipment owned and operated by Associated Drilling, Inc. Lithologic samples, used for logging and analytical purposes, were collected at regular intervals. Borehole lithology was logged by an ECI field geologist in accordance with the Unified Soil Classification System (USCS). The environmental boring logs are included in Appendix A. All recovered samples were field screened for organic vapors with a portable photoionization detector (PID). Headspace readings were recorded on the boring log.

All downhole equipment was thoroughly decontaminated with a pressurized steam cleaner prior to drilling each boring and prior to leaving the site. The split spoon sampler was washed in a detergent solution and rinsed with distilled water after the collection of each soil sample.

A cursory field screening using a Photovac Microtip photoionization detector (PID) was performed on all soil samples collected during the excavation procedures. The instrument was used to measure chemical organic vapors. Samples collected for field screening were placed in a clean plastic bag, sealed, and gently shaken to release organic vapors into the bag's headspace. The PID probe was inserted into the plastic bag, withdrawing vapors from the bag's headspace, and the reading was recorded. Headspace organic vapor field screening results are site specific and vary according to contaminant type, atmospheric conditions, and soil moisture content.

Groundwater Sampling

One groundwater sample was collected from each of the two monitoring wells directly following well development (pumping to remove particulates). The groundwater samples were collected directly from the hand pump's discharge after a minimum of forty gallons had been removed from the well casing. The groundwater samples were placed into laboratory prepared containers, immediately placed in a cooler with ice, and transported in the cooler to the chemical analytical laboratory (CCI Analytical Laboratories, Inc.) under chain-of-custody procedures. The samples collected for analysis for dissolved manganese were filtered at the analytical laboratory within four (4) hours of collection.

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTION
Coarse Grained Soils	Gravel And Gravelly Soils	Clean Gravels (little or no fines)		GW gw	Well-Graded Gravels, Gravel-Sand Mixtures, Little Or No Fines
				GP gp	Poorly-Graded Gravels, Gravel-Sand Mixtures, Little Or No Fines
	More Than 50% Coarse Fraction Retained On No. 4 Sieve	Gravels With Fines (appreciable amount of fines)		GM gm	Silty Gravels, Gravel-Sand-Silt Mixtures
				GC gc	Clayey Gravels, Gravel-Sand-Clay Mixtures
More Than 50% Material Larger Than No. 200 Sieve Size	Sand And Sandy Soils	Clean Sand (little or no fines)		SW sw	Well-Graded Sands, Gravelly Sands, Little Or No Fines
				SP sp	Poorly-Graded Sands, Gravelly Sands, Little Or No Fines
	More Than 50% Coarse Fraction Passing No. 4 Sieve	Sands With Fines (appreciable amount of fines)		SM sm	Silty Sands, Sand-Silt Mixtures
				SC sc	Clayey Sands, Sand-Clay Mixtures
Fine Grained Soils	Silts And Clays	Liquid Limit Less Than 50		ML ml	Inorganic Silts & Very Fine Sands, Rock Flour, Silty-Clayey Fine Sands; Clayey Silts w/ Slight Plasticity
				CL cl	Inorganic Clays Of Low To Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean
				OL ol	Organic Silts And Organic Silty Clays Of Low Plasticity
More Than 50% Material Smaller Than No. 200 Sieve Size	Silts And Clays	Liquid Limit Greater Than 50		MH mh	Inorganic Silts, Micaceous Or Diatomaceous Fine Sand Or Silty Soils
				CH ch	Inorganic Clays Of High Plasticity, Fat Clays
				OH oh	Organic Clays Of Medium To High Plasticity, Organic Silts
Highly Organic Soils				PT pt	Peat, Humus, Swamp Soils With High Organic Contents

Topsoil		Humus And Duff Layer
Fill		Highly Variable Constituents

The discussion in the text of this report is necessary for a proper understanding of the nature of the material presented in the attached logs.

DUAL SYMBOLS are used to indicate borderline soil classification.

C	TORVANE READING, tsf
qu	PENETROMETER READING, tsf
W	MOISTURE, % dry weight
P	SAMPLER PUSHED
*	SAMPLE NOT RECOVERED
pcf	DRY DENSITY, lbs. per cubic ft.
LL	LIQUID LIMIT, %
PI	PLASTIC INDEX

I 2" O.D. SPLIT SPOON SAMPLER

II 24" I.D. RING OR SHELBY TUBE SAMPLER

WATER OBSERVATION WELL

▽ DEPTH OF ENCOUNTERED GROUNDWATER DURING EXCAVATION

▼ SUBSEQUENT GROUNDWATER LEVEL W/ DATE

Earth Consultants Inc.

Geotechnical Engineers, Geologists & Environmental Scientists

LEGEND

Proj. No.7062-2 | Date Feb. '96 | Plate A1

Environmental Boring Log

Project Name:				Sheet	of
Airport 37				1	3
Job No.:	Logged by:	Start Date:	Completion Date:	Boring No:	
7062-2	WCS	2/19/96	2/19/96	B-1	
Drilling Contractor:		Drilling Method:		Sampling Method:	
Associated Drilling		Hollow Stem Auger		Split Spoon	
Ground Surface Elevation:		Hole Completion: ☒ Monitoring Well ☐ Piezometer ☐ Abandoned, sealed with bentonite			

Microtip Reading (ppm)	Sample ID	Blow Count	Litho-graphy	Depth in Feet	USCS Symbol	Surface Conditions: Gravel and Brush
				1	SP	Brown poorly graded medium SAND, silt and gravel, medium dense, moist
				2		
				3		
				4		
				5		
				6	SP	Brown poorly graded medium SAND with gravel, dense, moist
				7		
				8		
				9		
				10		
3.7	B-1-1	29		11		
				12		
				13		
				14		
				15		
				16		
				17		
				18		
				19		

Notes/Location

Earth Consultants Inc.

Proj. No. 7062-2	Date Feb.'96	Plate A2

Environmental Boring Log

Project Name:	Sheet	of
Airport 37	2	3

Job No.:	Logged by:	Start Date:	Completion Date:	Boring No:
7062-2	WCS	2/19/96	2/19/96	B-1

Drilling Contractor:	Drilling Method:	Sampling Method:
Associated Drilling	Hollow Stem Auger	Split Spoon

Ground Surface Elevation:

Hole Completion: [X] Monitoring Well [ ] Piezometer [ ] Abandoned, sealed with bentonite

Microtip Reading (ppm)	Sample ID	Blow Count	Litho-graphy	Depth in Feet	USCS Symbol	Surface Conditions:
					SP	
2.5	B-1-2	47		21		
				22		
				23		
				24		
				25		
				26		
				27		
				28		
				29	SP	Brown poorly graded medium SAND, dense, moist
				30		
1.4	B-1-3	35		31		
				32		
				33		
				34		
				35		
				36		
				37		
				38		
				39		
					▽	Ground water level on 2/21/96

Notes/Location

Earth Consultants Inc.

Proj. No. 7062-2	Date Feb'96	Plate A3

Environmental Boring Log

Project Name:				Sheet	of
Airport 37				3	3
Job No.: 7062-2	Logged by: WCS	Start Date: 2/19/96	Completion Date: 2/19/96	Boring No: B-1	
Drilling Contractor: Associated Drilling		Drilling Method: Hollow Stem Auger		Sampling Method: Split Spoon	
Ground Surface Elevation:		Hole Completion: [X] Monitoring Well [ ] Piezometer [ ] Abandoned, sealed with bentonite			

Microtip Reading (ppm)	Sample ID	Blow Count	Litho-graphy	Depth in Feet	USCS Symbol	Surface Conditions:
2.0	B-1-4	57		41		Becomes wet
				42		
				43		
				44		
				45		
				46		
				47		
				48		
				49		
				50		
2.5	B-1-5	77/10		51		
				52		
				53		
				54		
				55		Boring completed @ 55 feet on 2/19/96
				56		
				57		
				58		
				59		

Notes/Location

Earth Consultants Inc.

Proj. No. 7062-2	Date Feb.'96	Plate A4

Monitor Well Completion Form

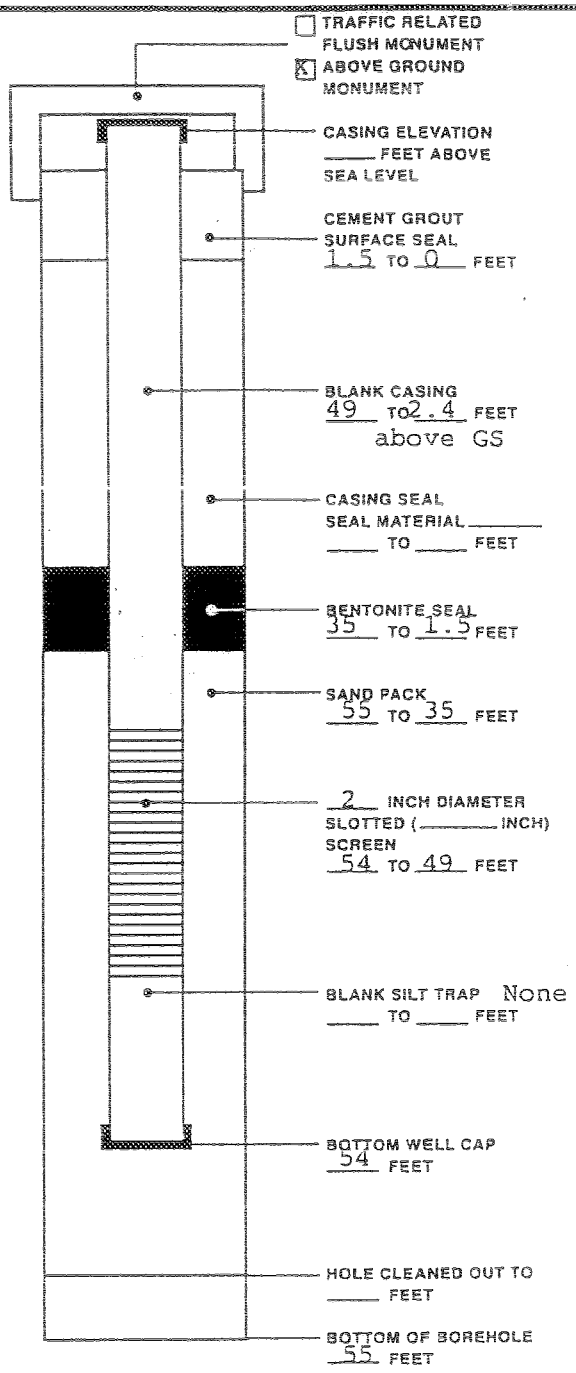
PROJECT NAME:	Airport 37, Lots 8-10		
PROJECT NUMBER:	7062-2	PROJECT MANAGER:	DJK
LOGGED BY:	WCS	REVIEWED BY:	
WELL I.D.:	MW-1	DATE:	2/19/96
DRILLING COMPANY:	Associated Drilling		
METHOD OF DECONTAMINATION PRIOR TO DRILLING:			

DEVELOPMENT

METHOD OF DEVELOPMENT:	BK Hand Pump		
DEVELOPMENT DATE:	2/21/96		
YIELD (GAL)	55	TIME: FROM	9:15 TO 9:45
DESCRIPTION OF TURBIDITY AT END OF DEVELOPMENT:	☒ CLEAR	☐ SLIGHTLY CLOUDY	
	☐ MOD. TURBID	☐ VERY MUDDY	
ODOR OF WATER:	None		
WATER DISCHARGED TO:	☐ GROUND SURFACE	☐ TANK TRUCK	
	☐ SANITARY SEWERS	☐ STORAGE TANK	
	☒ DRUMS	☐ OTHER	
DEPTH TO WATER AT START OF DEVELOPMENT:	39.65	DEPTH TO WATER AFTER DEVELOPMENT:	
RECOVERY TIME:			

MATERIALS USED

6	SACKS OF medium SAND
2	SACKS OF CEMENT
	SACKS OF GROUT:
	SACKS OF POWDERED BENTONITE:
6	SACKS OF BENTONITE CHIPS:
	BUCKETS OF BENTONITE PELLETS:
	FEET OF INCH BLANK CASING ☐ PVC ☐
	FEET OF INCH SCREEN INCH SLOT SIZE ☐ SLOTTED PVC ☐
	FEET OF INCH STEEL CONDUCTOR CASING
	YARD^3 CEMENT-SAND (REDI-MIX) ORDERED:
	YARD^3 CEMENT-SAND (REDI-MIX) USED:
CONCRETE PUMPER USED?	☐ YES ☒ NO
NAME:	



NOT TO SCALE

ADDITIONAL INFORMATION

Monitor Well
Airport 37 Industrial Park - Lots 8, 9, & 10
Arlington, Washington

Earth Consultants Inc.

Proj. No. 7062-2	Drwn. GLS	Date Feb.'96	Checked DJK	Date 2/28/96	Plate A5

Appendix B

Analytical Laboratory Results

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: EARTH CONSULTANTS, INC.
1805 136TH PLACE N.E.
SUITE 201
BELLEVUE, WA 98005

DATE: 2/28/96
CCIL JOB #: 602048
CCIL SAMPLE #: 1
DATE RECEIVED: 2/21/96
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DEBBIE KRISTOF

CLIENT PROJECT ID: AIRPORT 37 7062-2
CLIENT SAMPLE ID: MW-1 2/21/96 9:45

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
ARSENIC	EPA-7060	ND(<0.01)	MG/L		2/23/96	JLB
MANGANESE (TOTAL)	EPA-7460	0.65	MG/L		2/23/96	JLB
MANGANESE (DISS)	EPA-7460	0.13	MG/L		2/27/96	JLB

* "ND" INDICATES ANALYTE NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: Clair

3229 Pine St. • Everett, WA 98201 • 206-258-1548 • FAX 206-259-6289 • Seattle 206-292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: EARTH CONSULTANTS, INC.
1805 136TH PLACE N.E.
SUITE 201
BELLEVUE, WA 98005

DATE: 2/28/96
CCIL JOB #: 602048

DATE RECEIVED: 2/21/96
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DEBBIE KRISTOF

CLIENT PROJECT ID: AIRPORT 37 7062-2

QUALITY CONTROL RESULTS

BLANK AND DUPLICATE RESULTS

METHOD	BLK RESULT	ASSOC SMPLS	DUP RESULT	ORIG RESULT	%RDP	ASSOC SMPLS
EPA-7060 (AS)	ND(<0.01)	602048-01 TO 02	ND(<0.01)	ND(<0.01)	****	SAME
EPA-7460 (MN)	ND(<0.02)	602048-01 TO 02	0.66	0.65	1	SAME

SPIKE RECOVERY

METHOD	ASSOC SMPLS	SPIKE ID	MS % RECOV.	MSD % RECOV	%RPD
EPA-7060 (AS)	602048-01 TO 02	ARSENIC	90	N/A	N/A
EPA-7460 (MN)	602048-01 TO 02	MANGANESE	88	N/A	N/A

**** RPD NOT REPORTED FOR RESULTS < X5 THE REPORTING LIMIT

APPROVED BY: CJ21

3229 Pine St. • Everett, WA 98201 • 206 258-4548 • FAX 206 259-6289 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: EARTH CONSULTANTS, INC.
1805 136TH PLACE N.E.
SUITE 201
BELLEVUE, WA 98005

DATE: 2/28/96
CCIL JOB #: 602048
CCIL SAMPLE #: 2
DATE RECEIVED: 2/21/96
WDOE ACCREDITATION #: C142

CLIENT CONTACT: DEBBIE KRISTOF

CLIENT PROJECT ID: AIRPORT 37 7062-2
CLIENT SAMPLE ID: MW-2 2/21/96 10:30

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
ARSENIC	EPA-7060	ND(<0.01)	MG/L		2/23/96	JLB
MANGANESE (TOTAL)	EPA-7460	0.12	MG/L		2/23/96	JLB
MANGANESE (DISS)	EPA-7460	ND(<0.02)	MG/L		2/27/96	JLB

* "ND" INDICATES ANALYTE NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: _____

3229 Pine St. • Everett, WA 98201 • 206 258-4548 • FAX 206 259-6289 • Seattle 206 292-9059