Analytical Resources, Incorporated
Analytical Chemists and Consultants

March 14, 2005

Ms. Stacy Pischer
Landau Associates, Inc.
130 Second Avenue South
Edmonds, WA 98020

RE: Client Project: Port of Anacortes / 529009
ARI Job No: HU75

Dear Stacy,

Please find enclosed the original chain of custody (COC) and analytical results for the project referenced above. Analytical Resources, Inc. (ARI) accepted sixteen soil samples on March 7, 2005. The samples were received in good condition and there were no discrepancies between the COC's and the sample containers' labels.

The samples were analyzed for total arsenic referencing US EPA method 7060A. Quality control analyses are included for your review.

No analytical complications were noted. A copy of this report and all associated data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Respectfully,

ANALYTICAL RESOURCES, INC.

Mary Lou Fox

Mary Lou Fox
Project Manager
206-695-6211
marylou@arilabs.com

MLF/mlf
Enclosure
cc: File HU75

LANDAU ASSOCIATES

☑ **Seattle (Edmonds)** (425) 778-0907
☐ **Tacoma** (253) 926-2493
☐ **Spokane** (509) 327-9737
☐ **Portland (Tigard)** (503) 443-6010
☐ _____

Chain-of-Custody Record

Date 3-7-05
Page 1 of 1

Project Name Port of Anacortes Project No. 529009
Project Location/Event Anacortes, WA / Soil Sampling
Sampler's Name Evalyn Albright
Project Contact Stacy Pischer
Send Results To Stacy Pischer

Turnaround Time
☐ Standard
☒ Accelerated
~~☒~~ 72 hr.

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters: As (7060A)	Observations/Comments
LA1-S-3 (0-6)	3-7-05	1230	Soil	1	X	
LA1-S-3 (6-12)		1239			X	
LA1-S-3 (12-18)		1245			X	
LA1-S-3 (18-24)		1251			X	
LA1-S-4 (0-6)		1319			X	
LA1-S-4 (6-12)		1326			X	
LA1-S-4 (12-18)		1335			X	
LA1-S-4 (18-24)		1340			X	
LA1-S-5 (0-6)		1356			X	
LA1-S-5 (6-12)		1402			X	
LA1-S-5 (12-18)		1405			X	
LA1-S-5 (18-24)		1410			X	
LA1-S-6 (0-6)		1422			X	
LA1-S-6 (6-12)		1429			X	
LA1-S-6 (12-18)		1443			X	
LA1-S-6 (18-24)		1457			X	
				ice		

___ Allow water samples to settle, collect aliquot from clear portion

NWTPH-Dx:
___ run acid wash/silica gel cleanup
___ run samples standardized to _____ product

___ Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):
___ non-preserved
___ preserved w/methanol
___ preserved w/sodium bisulfate
___ Freese upon receipt

___ Dissolved metal water samples field filtered

Other _____

Special Shipment/Handling or Storage Requirements on ice

Method of Shipment delivery

Relinquished by	Received by	Relinquished by	Received by
Signature [signature]	Signature [signature]	Signature	Signature
Printed Name Evalyn Albright	Printed Name Bryan R. Bussey	Printed Name	Printed Name
Company Landau Associates Inc.	Company ARI	Company	Company
Date 3-7-05 Time 1708	Date 3/7/05 Time 1708	Date _____ Time _____	Date _____ Time _____

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

Rev 4/01

4.0

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: HU75MB
LIMS ID: 05-4437
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	7440-38-2	Arsenic	0.1	0.1	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-3 (0-6)
SAMPLE

Lab Sample ID: HU75A
LIMS ID: 05-4436
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 88.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**3.1**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-3 (0-6)
DUPLICATE

Lab Sample ID: HU75A
LIMS ID: 05-4436
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	7060A	3.1	3.2	3.2%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-3 (0-6)
MATRIX SPIKE

Lab Sample ID: HU75A
LIMS ID: 05-4436
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	7060A	3.1	13.3	10.5	97.1%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-3 (6-12)
SAMPLE

Lab Sample ID: HU75B
LIMS ID: 05-4437
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 90.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**3.8**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-3 (12-18)
SAMPLE

Lab Sample ID: HU75C
LIMS ID: 05-4438
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 81.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**3.9**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-3 (18-24)
SAMPLE

Lab Sample ID: HU75D
LIMS ID: 05-4439
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 75.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**3.5**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-4 (0-6)
SAMPLE

Lab Sample ID: HU75E
LIMS ID: 05-4440
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 84.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**6.3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-4 (6-12)
SAMPLE

Lab Sample ID: HU75F
LIMS ID: 05-4441
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 83.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	6	**106**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-4 (12-18)
SAMPLE

Lab Sample ID: HU75G
LIMS ID: 05-4442
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 81.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	3	**71**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-4 (18-24)
SAMPLE

Lab Sample ID: HU75H
LIMS ID: 05-4443
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 80.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	3	**54**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-5 (0-6)
SAMPLE

Lab Sample ID: HU75I
LIMS ID: 05-4444
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 80.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**3.9**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-5 (6-12)
SAMPLE

Lab Sample ID: HU75J
LIMS ID: 05-4445
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 88.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**2.7**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-5 (12-18)
SAMPLE

Lab Sample ID: HU75K
LIMS ID: 05-4446
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 88.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**1.7**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-5 (18-24)
SAMPLE

Lab Sample ID: HU75L
LIMS ID: 05-4447
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 80.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**2.7**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-6 (0-6)
SAMPLE

Lab Sample ID: HU75M
LIMS ID: 05-4448
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 82.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**3.1**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-6 (6-12)
SAMPLE

Lab Sample ID: HU75N
LIMS ID: 05-4449
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 76.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**3.4**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-6 (12-18)
SAMPLE

Lab Sample ID: HU75O
LIMS ID: 05-4450
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 91.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**2.4**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAI-S-6 (18-24)
SAMPLE

Lab Sample ID: HU75P
LIMS ID: 05-4451
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: 03/07/05
Date Received: 03/07/05

Percent Total Solids: 91.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	03/08/05	7060A	03/09/05	**7440-38-2**	**Arsenic**	0.3	**3.9**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: HU75LCS
LIMS ID: 05-4437
Matrix: Soil
Data Release Authorized:
Reported: 03/10/05

QC Report No: HU75-Landau Associates
Project: 529009
Port of Anacortes
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	7060A	9.5	10.0	95.0%	

Reported in mg/kg-dry

N-Control limit not met
Control Limits: 80-120%