Apex Labs

AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Thursday, May 5, 2016

Rob Ede
Hahn and Associates
434 NW 6th Ave. Suite 203
Portland, OR 97209

RE: Siltronic RI-Doane Creek / 5237-10dc

Enclosed are the results of analyses for work order A6D0013, which was received by the laboratory on 4/1/2016 at 10:20:00AM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

Philip Nerenberg, Lab Director

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
5237-160331-NDP-SED003G	A6D0013-01	Sediment	03/31/16 10:35	04/01/16 10:20
5237-160331-NDP-SED003	A6D0013-02	Sediment	03/31/16 10:35	04/01/16 10:20
5237-160331-NDP-SED002G	A6D0013-03	Sediment	03/31/16 10:45	04/01/16 10:20
5237-160331-NDP-SED002	A6D0013-04	Sediment	03/31/16 10:45	04/01/16 10:20
5237-160331-NDP-SED001G	A6D0013-05	Sediment	03/31/16 11:00	04/01/16 10:20
5237-160331-NDP-SED001	A6D0013-06	Sediment	03/31/16 11:00	04/01/16 10:20
5237-160331-NDP-SED005G	A6D0013-07	Sediment	03/31/16 11:00	04/01/16 10:20
5237-160331-NDP-SED005	A6D0013-08	Sediment	03/31/16 11:00	04/01/16 10:20
5237-160331-NDP-SED004G	A6D0013-09	Sediment	03/31/16 11:40	04/01/16 10:20
5237-160331-NDP-SED004	A6D0013-10	Sediment	03/31/16 11:40	04/01/16 10:20
5237-160331-NDP-EMB001G	A6D0013-11	Sediment	03/31/16 14:40	04/01/16 10:20
5237-160331-NDP-EMB001	A6D0013-12	Sediment	03/31/16 14:40	04/01/16 10:20

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL CASE NARRATIVE

Work Order: A6D0013

Amended Report Revision 1:

This report supersedes all previous reports.

Analysis of full list VOCs on samples SED002G and SED004G were added after the previous report version had been completed.

Philip Nerenberg
Lab Director
5/5/16

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Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02)			**Matrix: Sediment**		**Batch: 6040064**			
Diesel	**17.1**	13.1	26.3	mg/kg dry	1	04/04/16 20:59	NWTPH-Dx	J
Oil	**44.8**	26.3	52.5	"	"	"	"	Q-37, J
Surrogate: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-SED002 (A6D0013-04)			**Matrix: Sediment**		**Batch: 6040064**			
Diesel	ND	12.5	24.9	mg/kg dry	1	04/04/16 22:05	NWTPH-Dx	
Oil	**158**	24.9	49.8	"	"	"	"	F-03
Surrogate: o-Terphenyl (Surr)			*Recovery: 84 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-SED001 (A6D0013-06)			**Matrix: Sediment**		**Batch: 6040064**			
Diesel	ND	11.6	23.2	mg/kg dry	1	04/04/16 22:27	NWTPH-Dx	
Oil	**68.9**	23.2	46.4	"	"	"	"	F-03
Surrogate: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-SED005 (A6D0013-08)			**Matrix: Sediment**		**Batch: 6040064**			
Diesel	ND	15.5	31.0	mg/kg dry	1	04/04/16 23:11	NWTPH-Dx	
Oil	**175**	31.0	62.0	"	"	"	"	F-03
Surrogate: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-SED004 (A6D0013-10)			**Matrix: Sediment**		**Batch: 6040064**			
Diesel	**89.6**	18.5	37.0	mg/kg dry	1	04/04/16 23:33	NWTPH-Dx	F-15
Oil	**187**	37.0	74.0	"	"	"	"	F-03, F-16
Surrogate: o-Terphenyl (Surr)			*Recovery: 89 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-EMB001 (A6D0013-12)			**Matrix: Sediment**		**Batch: 6040064**			
Diesel	ND	12.4	24.9	mg/kg dry	1	04/05/16 00:16	NWTPH-Dx	
Oil	**78.8**	24.9	49.8	"	"	"	"	F-03
Surrogate: o-Terphenyl (Surr)			*Recovery: 81 %*	*Limits: 50-150 %*	"	"	"	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003G (A6D0013-01)			**Matrix: Sediment**		**Batch: 6040011**			
Gasoline Range Organics	ND	8.68	8.68	mg/kg dry	50	04/01/16 16:37	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-SED002G (A6D0013-03)			**Matrix: Sediment**		**Batch: 6040011**			
Gasoline Range Organics	ND	4.06	8.11	mg/kg dry	50	04/01/16 17:02	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-SED001G (A6D0013-05)			**Matrix: Sediment**		**Batch: 6040011**			
Gasoline Range Organics	ND	3.63	7.27	mg/kg dry	50	04/01/16 17:27	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 94 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-SED005G (A6D0013-07)			**Matrix: Sediment**		**Batch: 6040011**			
Gasoline Range Organics	ND	6.47	12.9	mg/kg dry	50	04/01/16 17:51	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 94 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-SED004G (A6D0013-09)			**Matrix: Sediment**		**Batch: 6040011**			
Gasoline Range Organics	ND	8.47	16.9	mg/kg dry	50	04/01/16 18:16	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	
5237-160331-NDP-EMB001G (A6D0013-11)			**Matrix: Sediment**		**Batch: 6040011**			
Gasoline Range Organics	ND	4.83	9.67	mg/kg dry	50	04/01/16 18:41	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 91 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003G (A6D0013-01)			**Matrix: Sediment**		**Batch: 6040011**			
Benzene	ND	8.68	17.4	ug/kg dry	50	04/01/16 16:37	5035/8260B	
Toluene	ND	43.4	86.8	"	"	"	"	
Ethylbenzene	ND	21.7	43.4	"	"	"	"	
Xylenes, total	ND	65.1	130	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 101 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	1	"	"	
5237-160331-NDP-SED002G (A6D0013-03)			**Matrix: Sediment**		**Batch: 6040011**			
Benzene	ND	8.11	16.2	ug/kg dry	50	04/01/16 17:02	5035/8260B	
Toluene	ND	40.6	81.1	"	"	"	"	
Ethylbenzene	ND	20.3	40.6	"	"	"	"	
Xylenes, total	ND	60.8	122	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*95 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 70-130 %*	1	"	"	
5237-160331-NDP-SED001G (A6D0013-05)			**Matrix: Sediment**		**Batch: 6040011**			
Benzene	ND	7.27	14.5	ug/kg dry	50	04/01/16 17:27	5035/8260B	
Toluene	ND	36.3	72.7	"	"	"	"	
Ethylbenzene	ND	18.2	36.3	"	"	"	"	
Xylenes, total	ND	54.5	109	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 101 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*103 %*	*Limits: 70-130 %*	1	"	"	
5237-160331-NDP-SED005G (A6D0013-07)			**Matrix: Sediment**		**Batch: 6040011**			
Benzene	ND	12.9	25.9	ug/kg dry	50	04/01/16 17:51	5035/8260B	
Toluene	ND	64.7	129	"	"	"	"	
Ethylbenzene	ND	32.3	64.7	"	"	"	"	
Xylenes, total	ND	97.0	194	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 101 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 70-130 %*	50	"	"	

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Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED005G (A6D0013-07)			**Matrix: Sediment**		**Batch: 6040011**			
Surrogate: 4-Bromofluorobenzene (Surr)			*Recovery: 101 %*	*Limits: 70-130 %*	1	"	5035/8260B	
5237-160331-NDP-SED004G (A6D0013-09)			**Matrix: Sediment**		**Batch: 6040011**			
Benzene	ND	16.9	33.9	ug/kg dry	50	04/01/16 18:16	5035/8260B	
Toluene	ND	84.7	169	"	"	"	"	
Ethylbenzene	ND	42.4	84.7	"	"	"	"	
Xylenes, total	ND	127	254	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 99 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	1	"	"	
5237-160331-NDP-EMB001G (A6D0013-11)			**Matrix: Sediment**		**Batch: 6040011**			
Benzene	ND	9.67	19.3	ug/kg dry	50	04/01/16 18:41	5035/8260B	
Toluene	ND	48.3	96.7	"	"	"	"	
Ethylbenzene	ND	24.2	48.3	"	"	"	"	
Xylenes, total	ND	72.5	145	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 94 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*101 %*	*Limits: 70-130 %*	1	"	"	

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED002G (A6D0013-03)			**Matrix: Sediment**		**Batch: 6040011**			
Acetone	ND	811	1620	ug/kg dry	50	04/01/16 17:02	5035/8260B	
Benzene	ND	8.11	16.2	"	"	"	"	
Bromobenzene	ND	20.3	40.6	"	"	"	"	
Bromochloromethane	ND	40.6	81.1	"	"	"	"	
Bromodichloromethane	ND	81.1	162	"	"	"	"	
Bromoform	ND	203	406	"	"	"	"	
Bromomethane	ND	811	811	"	"	"	"	
2-Butanone (MEK)	ND	406	811	"	"	"	"	
n-Butylbenzene	ND	40.6	81.1	"	"	"	"	
sec-Butylbenzene	ND	40.6	81.1	"	"	"	"	
tert-Butylbenzene	ND	40.6	81.1	"	"	"	"	
Carbon tetrachloride	ND	203	406	"	"	"	"	
Chlorobenzene	ND	20.3	40.6	"	"	"	"	
Chloroethane	ND	406	811	"	"	"	"	E-03
Chloroform	ND	40.6	81.1	"	"	"	"	
Chloromethane	ND	203	406	"	"	"	"	
2-Chlorotoluene	ND	40.6	81.1	"	"	"	"	
4-Chlorotoluene	ND	40.6	81.1	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	203	406	"	"	"	"	
Dibromochloromethane	ND	203	406	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	40.6	81.1	"	"	"	"	
Dibromomethane	ND	40.6	81.1	"	"	"	"	
1,2-Dichlorobenzene	ND	20.3	40.6	"	"	"	"	
1,3-Dichlorobenzene	ND	20.3	40.6	"	"	"	"	
1,4-Dichlorobenzene	ND	20.3	40.6	"	"	"	"	
Dichlorodifluoromethane	ND	81.1	162	"	"	"	"	
1,1-Dichloroethane	ND	20.3	40.6	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	20.3	40.6	"	"	"	"	
1,1-Dichloroethene	ND	20.3	40.6	"	"	"	"	
cis-1,2-Dichloroethene	ND	20.3	40.6	"	"	"	"	
trans-1,2-Dichloroethene	ND	20.3	40.6	"	"	"	"	
1,2-Dichloropropane	ND	20.3	40.6	"	"	"	"	
1,3-Dichloropropane	ND	40.6	81.1	"	"	"	"	
2,2-Dichloropropane	ND	40.6	81.1	"	"	"	"	
1,1-Dichloropropene	ND	40.6	81.1	"	"	"	"	

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED002G (A6D0013-03)			**Matrix: Sediment**		**Batch: 6040011**			
cis-1,3-Dichloropropene	ND	40.6	81.1	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	203	406	"	"	"	"	
Ethylbenzene	ND	20.3	40.6	"	"	"	"	
Hexachlorobutadiene	ND	81.1	162	"	"	"	"	
2-Hexanone	ND	406	811	"	"	"	"	
Isopropylbenzene	ND	40.6	81.1	"	"	"	"	
4-Isopropyltoluene	ND	40.6	81.1	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	406	811	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	40.6	81.1	"	"	"	"	
Methylene chloride	ND	203	406	"	"	"	"	
Naphthalene	ND	81.1	162	"	"	"	"	
n-Propylbenzene	ND	20.3	40.6	"	"	"	"	
Styrene	ND	40.6	81.1	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	20.3	40.6	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	203	406	"	"	"	"	
Tetrachloroethene (PCE)	ND	20.3	40.6	"	"	"	"	
Toluene	ND	40.6	81.1	"	"	"	"	
1,2,3-Trichlorobenzene	ND	203	406	"	"	"	"	
1,2,4-Trichlorobenzene	ND	203	406	"	"	"	"	
1,1,1-Trichloroethane	ND	20.3	40.6	"	"	"	"	
1,1,2-Trichloroethane	ND	20.3	40.6	"	"	"	"	
Trichloroethene (TCE)	ND	20.3	40.6	"	"	"	"	
Trichlorofluoromethane	ND	203	406	"	"	"	"	E-03
1,2,3-Trichloropropane	ND	40.6	81.1	"	"	"	"	
1,2,4-Trimethylbenzene	ND	40.6	81.1	"	"	"	"	
1,3,5-Trimethylbenzene	ND	40.6	81.1	"	"	"	"	
Vinyl chloride	ND	20.3	40.6	"	"	"	"	
m,p-Xylene	ND	40.6	81.1	"	"	"	"	
o-Xylene	ND	20.3	40.6	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*95 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 70-130 %*	1	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED004G (A6D0013-09)			**Matrix: Sediment**		**Batch: 6040011**			
Acetone	ND	1690	3390	ug/kg dry	50	04/01/16 18:16	5035/8260B	
Benzene	ND	16.9	33.9	"	"	"	"	
Bromobenzene	ND	42.4	84.7	"	"	"	"	
Bromochloromethane	ND	84.7	169	"	"	"	"	
Bromodichloromethane	ND	169	339	"	"	"	"	
Bromoform	ND	424	847	"	"	"	"	
Bromomethane	ND	1690	1690	"	"	"	"	
2-Butanone (MEK)	ND	847	1690	"	"	"	"	
n-Butylbenzene	ND	84.7	169	"	"	"	"	
sec-Butylbenzene	ND	84.7	169	"	"	"	"	
tert-Butylbenzene	ND	84.7	169	"	"	"	"	
Carbon tetrachloride	ND	424	847	"	"	"	"	
Chlorobenzene	ND	42.4	84.7	"	"	"	"	
Chloroethane	ND	847	1690	"	"	"	"	E-03
Chloroform	ND	84.7	169	"	"	"	"	
Chloromethane	ND	424	847	"	"	"	"	
2-Chlorotoluene	ND	84.7	169	"	"	"	"	
4-Chlorotoluene	ND	84.7	169	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	424	847	"	"	"	"	
Dibromochloromethane	ND	424	847	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	84.7	169	"	"	"	"	
Dibromomethane	ND	84.7	169	"	"	"	"	
1,2-Dichlorobenzene	ND	42.4	84.7	"	"	"	"	
1,3-Dichlorobenzene	ND	42.4	84.7	"	"	"	"	
1,4-Dichlorobenzene	ND	42.4	84.7	"	"	"	"	
Dichlorodifluoromethane	ND	169	339	"	"	"	"	
1,1-Dichloroethane	ND	42.4	84.7	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	42.4	84.7	"	"	"	"	
1,1-Dichloroethene	ND	42.4	84.7	"	"	"	"	
cis-1,2-Dichloroethene	ND	42.4	84.7	"	"	"	"	
trans-1,2-Dichloroethene	ND	42.4	84.7	"	"	"	"	
1,2-Dichloropropane	ND	42.4	84.7	"	"	"	"	
1,3-Dichloropropane	ND	84.7	169	"	"	"	"	
2,2-Dichloropropane	ND	84.7	169	"	"	"	"	
1,1-Dichloropropene	ND	84.7	169	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED004G (A6D0013-09)			**Matrix: Sediment**		**Batch: 6040011**			
cis-1,3-Dichloropropene	ND	84.7	169	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	424	847	"	"	"	"	
Ethylbenzene	ND	42.4	84.7	"	"	"	"	
Hexachlorobutadiene	ND	169	339	"	"	"	"	
2-Hexanone	ND	847	1690	"	"	"	"	
Isopropylbenzene	ND	84.7	169	"	"	"	"	
4-Isopropyltoluene	ND	84.7	169	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	847	1690	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	84.7	169	"	"	"	"	
Methylene chloride	ND	424	847	"	"	"	"	
Naphthalene	ND	169	339	"	"	"	"	
n-Propylbenzene	ND	42.4	84.7	"	"	"	"	
Styrene	ND	84.7	169	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	42.4	84.7	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	424	847	"	"	"	"	
Tetrachloroethene (PCE)	ND	42.4	84.7	"	"	"	"	
Toluene	ND	84.7	169	"	"	"	"	
1,2,3-Trichlorobenzene	ND	424	847	"	"	"	"	
1,2,4-Trichlorobenzene	ND	424	847	"	"	"	"	
1,1,1-Trichloroethane	ND	42.4	84.7	"	"	"	"	
1,1,2-Trichloroethane	ND	42.4	84.7	"	"	"	"	
Trichloroethene (TCE)	ND	42.4	84.7	"	"	"	"	
Trichlorofluoromethane	ND	424	847	"	"	"	"	E-03
1,2,3-Trichloropropane	ND	84.7	169	"	"	"	"	
1,2,4-Trimethylbenzene	ND	84.7	169	"	"	"	"	
1,3,5-Trimethylbenzene	ND	84.7	169	"	"	"	"	
Vinyl chloride	ND	42.4	84.7	"	"	"	"	
m,p-Xylene	ND	84.7	169	"	"	"	"	
o-Xylene	ND	42.4	84.7	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 99 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	1	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Anions by EPA 300.0/9056A (Ion Chromatography)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02)			**Matrix: Sediment**					
Batch: 6040311								
Sulfate	ND	13.5	13.5	mg/kg dry	1	04/13/16 00:49	EPA 9056A	
5237-160331-NDP-SED002 (A6D0013-04)			**Matrix: Sediment**					
Batch: 6040311								
Sulfate	ND	14.5	14.5	mg/kg dry	1	04/13/16 01:11	EPA 9056A	
5237-160331-NDP-SED001 (A6D0013-06)			**Matrix: Sediment**					
Batch: 6040311								
Sulfate	ND	12.5	12.5	mg/kg dry	1	04/13/16 01:32	EPA 9056A	
5237-160331-NDP-SED005 (A6D0013-08)			**Matrix: Sediment**					
Batch: 6040311								
Sulfate	**20.5**	17.1	17.1	mg/kg dry	1	04/13/16 01:54	EPA 9056A	
5237-160331-NDP-SED004 (A6D0013-10)			**Matrix: Sediment**					
Batch: 6040311								
Sulfate	**47.6**	20.2	20.2	mg/kg dry	1	04/13/16 03:41	EPA 9056A	
5237-160331-NDP-EMB001 (A6D0013-12)			**Matrix: Sediment**					
Batch: 6040311								
Sulfate	ND	14.4	14.4	mg/kg dry	1	04/13/16 04:03	EPA 9056A	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Cyanide - Total (Non-aqueous)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	**1.63**	0.135	0.135	mg/kg dry	1	04/11/16 18:15	EPA 9013M/9014	
5237-160331-NDP-SED002 (A6D0013-04)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	**0.342**	0.142	0.142	mg/kg dry	1	04/11/16 18:17	EPA 9013M/9014	
5237-160331-NDP-SED001 (A6D0013-06)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	**0.218**	0.127	0.127	mg/kg dry	1	04/11/16 18:19	EPA 9013M/9014	
5237-160331-NDP-SED005 (A6D0013-08)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	**0.218**	0.173	0.173	mg/kg dry	1	04/11/16 18:21	EPA 9013M/9014	
5237-160331-NDP-SED004 (A6D0013-10)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	**0.254**	0.198	0.198	mg/kg dry	1	04/11/16 18:23	EPA 9013M/9014	
5237-160331-NDP-EMB001 (A6D0013-12)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.139	0.139	mg/kg dry	1	04/11/16 18:31	EPA 9013M/9014	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Acenaphthene	**10.9**	7.25	14.6	ug/kg dry	4	04/07/16 11:53	EPA 8270D	J
Acenaphthylene	**16.7**	7.25	14.6	"	"	"	"	
Anthracene	**19.6**	7.25	14.6	"	"	"	"	
Benz(a)anthracene	**145**	7.25	14.6	"	"	"	"	Q-42
Benzo(a)pyrene	**231**	10.9	21.8	"	"	"	"	Q-42
Benzo(b)fluoranthene	**286**	10.9	21.8	"	"	"	"	M-02, Q-42
Benzo(k)fluoranthene	**98.2**	10.9	21.8	"	"	"	"	M-02
Benzo(g,h,i)perylene	**204**	7.25	14.6	"	"	"	"	Q-42
Chrysene	**171**	7.25	14.6	"	"	"	"	Q-42
Dibenz(a,h)anthracene	**32.4**	7.25	14.6	"	"	"	"	
Fluoranthene	**272**	7.25	14.6	"	"	"	"	Q-42
Fluorene	**9.33**	7.25	14.6	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	**184**	7.25	14.6	"	"	"	"	Q-42
1-Methylnaphthalene	ND	14.6	29.1	"	"	"	"	
2-Methylnaphthalene	ND	14.6	29.1	"	"	"	"	
Naphthalene	ND	14.6	29.1	"	"	"	"	
Phenanthrene	**96.9**	7.25	14.6	"	"	"	"	Q-42
Pyrene	**291**	7.25	14.6	"	"	"	"	Q-42
Carbazole	**23.5**	10.9	21.8	"	"	"	"	
Dibenzofuran	ND	7.25	14.6	"	"	"	"	
4-Chloro-3-methylphenol	ND	72.5	146	"	"	"	"	
2-Chlorophenol	ND	36.4	72.5	"	"	"	"	
2,4-Dichlorophenol	ND	36.4	72.5	"	"	"	"	
2,4-Dimethylphenol	ND	36.4	72.5	"	"	"	"	
2,4-Dinitrophenol	ND	182	364	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	182	364	"	"	"	"	
2-Methylphenol	ND	18.2	36.4	"	"	"	"	
3+4-Methylphenol(s)	ND	18.2	36.4	"	"	"	"	
2-Nitrophenol	ND	72.5	146	"	"	"	"	
4-Nitrophenol	ND	72.5	146	"	"	"	"	
Pentachlorophenol (PCP)	**98.8**	72.5	146	"	"	"	"	J, Q-42
Phenol	ND	14.6	29.1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	36.4	72.5	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	36.4	72.5	"	"	"	"	
2,4,5-Trichlorophenol	ND	36.4	72.5	"	"	"	"	
2,4,6-Trichlorophenol	ND	36.4	72.5	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Bis(2-ethylhexyl)phthalate	ND	109	218	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	72.5	146	"	"	"	"	
Diethylphthalate	ND	72.5	146	"	"	"	"	
Dimethylphthalate	ND	72.5	146	"	"	"	"	
Di-n-butylphthalate	ND	72.5	146	"	"	"	"	
Di-n-octyl phthalate	ND	72.5	146	"	"	"	"	
N-Nitrosodimethylamine	ND	18.2	36.4	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	18.2	36.4	"	"	"	"	
N-Nitrosodiphenylamine	ND	18.2	36.4	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	18.2	36.4	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	18.2	36.4	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	18.2	36.4	"	"	"	"	
Hexachlorobenzene	ND	7.25	14.6	"	"	"	"	
Hexachlorobutadiene	ND	18.2	36.4	"	"	"	"	
Hexachlorocyclopentadiene	ND	36.4	72.5	"	"	"	"	
Hexachloroethane	ND	18.2	36.4	"	"	"	"	
2-Chloronaphthalene	ND	7.25	14.6	"	"	"	"	
1,2-Dichlorobenzene	ND	18.2	36.4	"	"	"	"	
1,3-Dichlorobenzene	ND	18.2	36.4	"	"	"	"	
1,4-Dichlorobenzene	ND	18.2	36.4	"	"	"	"	
1,2,4-Trichlorobenzene	ND	18.2	36.4	"	"	"	"	
4-Bromophenyl phenyl ether	ND	18.2	36.4	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	18.2	36.4	"	"	"	"	
Aniline	ND	36.4	72.5	"	"	"	"	
4-Chloroaniline	ND	18.2	36.4	"	"	"	"	
2-Nitroaniline	ND	146	291	"	"	"	"	
3-Nitroaniline	ND	146	291	"	"	"	"	
4-Nitroaniline	ND	146	291	"	"	"	"	
Nitrobenzene	ND	72.5	146	"	"	"	"	
2,4-Dinitrotoluene	ND	72.5	146	"	"	"	"	
2,6-Dinitrotoluene	ND	72.5	146	"	"	"	"	
Benzoic acid	ND	911	1820	"	"	"	"	
Benzyl alcohol	ND	36.4	72.5	"	"	"	"	
Isophorone	ND	18.2	36.4	"	"	"	"	
Azobenzene (1,2-DPH)	ND	18.2	36.4	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Bis(2-Ethylhexyl) adipate	ND	182	364	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	72.5	146	"	"	"	"	
1,2-Dinitrobenzene	ND	182	364	"	"	"	"	
1,3-Dinitrobenzene	ND	182	364	"	"	"	"	
1,4-Dinitrobenzene	ND	182	364	"	"	"	"	
Pyridine	ND	36.4	72.5	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 84 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*85 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*83 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*89 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*76 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*93 %*	*Limits: 39-132 %*	"	"	"	
5237-160331-NDP-SED002 (A6D0013-04RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Acenaphthene	**26.2**	7.42	14.9	ug/kg dry	4	04/07/16 13:07	EPA 8270D	
Acenaphthylene	**15.9**	7.42	14.9	"	"	"	"	
Anthracene	**25.9**	7.42	14.9	"	"	"	"	
Benz(a)anthracene	**154**	7.42	14.9	"	"	"	"	
Benzo(a)pyrene	**227**	11.2	22.3	"	"	"	"	
Benzo(b)fluoranthene	**266**	11.2	22.3	"	"	"	"	M-02
Benzo(k)fluoranthene	**94.7**	11.2	22.3	"	"	"	"	M-02
Benzo(g,h,i)perylene	**193**	7.42	14.9	"	"	"	"	
Chrysene	**195**	7.42	14.9	"	"	"	"	
Dibenz(a,h)anthracene	**32.9**	7.42	14.9	"	"	"	"	
Fluoranthene	**249**	7.42	14.9	"	"	"	"	
Fluorene	**13.9**	7.42	14.9	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	**168**	7.42	14.9	"	"	"	"	
1-Methylnaphthalene	ND	14.9	29.7	"	"	"	"	
2-Methylnaphthalene	ND	14.9	29.7	"	"	"	"	
Naphthalene	ND	14.9	29.7	"	"	"	"	
Phenanthrene	**101**	7.42	14.9	"	"	"	"	
Pyrene	**294**	7.42	14.9	"	"	"	"	
Carbazole	**17.9**	11.2	22.3	"	"	"	"	J
Dibenzofuran	ND	7.42	14.9	"	"	"	"	
4-Chloro-3-methylphenol	ND	74.2	149	"	"	"	"	
2-Chlorophenol	ND	37.2	74.2	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED002 (A6D0013-04RE1)			**Matrix: Sediment**		**Batch: 6040143**			
2,4-Dichlorophenol	ND	37.2	74.2	ug/kg dry	4	"	EPA 8270D	
2,4-Dimethylphenol	ND	37.2	74.2	"	"	"	"	
2,4-Dinitrophenol	ND	186	372	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	186	372	"	"	"	"	
2-Methylphenol	ND	18.6	37.2	"	"	"	"	
3+4-Methylphenol(s)	ND	18.6	37.2	"	"	"	"	
2-Nitrophenol	ND	74.2	149	"	"	"	"	
4-Nitrophenol	ND	74.2	149	"	"	"	"	
Pentachlorophenol (PCP)	ND	74.2	149	"	"	"	"	
Phenol	ND	14.9	29.7	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	37.2	74.2	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	37.2	74.2	"	"	"	"	
2,4,5-Trichlorophenol	ND	37.2	74.2	"	"	"	"	
2,4,6-Trichlorophenol	ND	37.2	74.2	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	112	223	"	"	"	"	
Butyl benzyl phthalate	ND	74.2	149	"	"	"	"	
Diethylphthalate	ND	74.2	149	"	"	"	"	
Dimethylphthalate	ND	74.2	149	"	"	"	"	
Di-n-butylphthalate	ND	74.2	149	"	"	"	"	
Di-n-octyl phthalate	ND	74.2	149	"	"	"	"	
N-Nitrosodimethylamine	ND	18.6	37.2	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	18.6	37.2	"	"	"	"	
N-Nitrosodiphenylamine	ND	18.6	37.2	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	18.6	37.2	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	18.6	37.2	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	18.6	37.2	"	"	"	"	
Hexachlorobenzene	ND	7.42	14.9	"	"	"	"	
Hexachlorobutadiene	ND	18.6	37.2	"	"	"	"	
Hexachlorocyclopentadiene	ND	37.2	74.2	"	"	"	"	
Hexachloroethane	ND	18.6	37.2	"	"	"	"	
2-Chloronaphthalene	ND	7.42	14.9	"	"	"	"	
1,2-Dichlorobenzene	ND	18.6	37.2	"	"	"	"	
1,3-Dichlorobenzene	ND	18.6	37.2	"	"	"	"	
1,4-Dichlorobenzene	ND	18.6	37.2	"	"	"	"	
1,2,4-Trichlorobenzene	ND	18.6	37.2	"	"	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED002 (A6D0013-04RE1)			**Matrix: Sediment**		**Batch: 6040143**			
4-Bromophenyl phenyl ether	ND	18.6	37.2	ug/kg dry	4	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	18.6	37.2	"	"	"	"	
Aniline	ND	37.2	74.2	"	"	"	"	
4-Chloroaniline	ND	18.6	37.2	"	"	"	"	
2-Nitroaniline	ND	149	297	"	"	"	"	
3-Nitroaniline	ND	149	297	"	"	"	"	
4-Nitroaniline	ND	149	297	"	"	"	"	
Nitrobenzene	ND	74.2	149	"	"	"	"	
2,4-Dinitrotoluene	ND	74.2	149	"	"	"	"	
2,6-Dinitrotoluene	ND	74.2	149	"	"	"	"	
Benzoic acid	ND	932	1860	"	"	"	"	
Benzyl alcohol	ND	37.2	74.2	"	"	"	"	
Isophorone	ND	18.6	37.2	"	"	"	"	
Azobenzene (1,2-DPH)	ND	18.6	37.2	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	186	372	"	"	"	"	
3,3'-Dichlorobenzidine	ND	74.2	149	"	"	"	"	
1,2-Dinitrobenzene	ND	186	372	"	"	"	"	
1,3-Dinitrobenzene	ND	186	372	"	"	"	"	
1,4-Dinitrobenzene	ND	186	372	"	"	"	"	
Pyridine	ND	37.2	74.2	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 72 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*68 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*80 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*79 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*67 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*102 %*	*Limits: 39-132 %*	"	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED001 (A6D0013-06RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Acenaphthene	ND	6.73	13.5	ug/kg dry	4	04/07/16 13:45	EPA 8270D	
Acenaphthylene	**16.2**	6.73	13.5	"	"	"	"	
Anthracene	**8.11**	6.73	13.5	"	"	"	"	J
Benz(a)anthracene	**56.0**	6.73	13.5	"	"	"	"	
Benzo(a)pyrene	**88.5**	10.1	20.2	"	"	"	"	
Benzo(b)fluoranthene	**102**	10.1	20.2	"	"	"	"	M-02
Benzo(k)fluoranthene	**32.9**	10.1	20.2	"	"	"	"	M-02
Benzo(g,h,i)perylene	**81.2**	6.73	13.5	"	"	"	"	
Chrysene	**70.3**	6.73	13.5	"	"	"	"	
Dibenz(a,h)anthracene	**15.2**	6.73	13.5	"	"	"	"	
Fluoranthene	**116**	6.73	13.5	"	"	"	"	
Fluorene	ND	6.73	13.5	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**74.1**	6.73	13.5	"	"	"	"	
1-Methylnaphthalene	ND	13.5	27.0	"	"	"	"	
2-Methylnaphthalene	ND	13.5	27.0	"	"	"	"	
Naphthalene	ND	13.5	27.0	"	"	"	"	
Phenanthrene	**30.0**	6.73	13.5	"	"	"	"	
Pyrene	**153**	6.73	13.5	"	"	"	"	
Carbazole	ND	10.1	20.2	"	"	"	"	
Dibenzofuran	ND	6.73	13.5	"	"	"	"	
4-Chloro-3-methylphenol	ND	67.3	135	"	"	"	"	
2-Chlorophenol	ND	33.8	67.3	"	"	"	"	
2,4-Dichlorophenol	ND	33.8	67.3	"	"	"	"	
2,4-Dimethylphenol	ND	33.8	67.3	"	"	"	"	
2,4-Dinitrophenol	ND	169	338	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	169	338	"	"	"	"	
2-Methylphenol	ND	16.9	33.8	"	"	"	"	
3+4-Methylphenol(s)	ND	16.9	33.8	"	"	"	"	
2-Nitrophenol	ND	67.3	135	"	"	"	"	
4-Nitrophenol	ND	67.3	135	"	"	"	"	
Pentachlorophenol (PCP)	ND	67.3	135	"	"	"	"	
Phenol	ND	13.5	27.0	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	33.8	67.3	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	33.8	67.3	"	"	"	"	
2,4,5-Trichlorophenol	ND	33.8	67.3	"	"	"	"	
2,4,6-Trichlorophenol	ND	33.8	67.3	"	"	"	"	

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED001 (A6D0013-06RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Bis(2-ethylhexyl)phthalate	ND	101	202	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	67.3	135	"	"	"	"	
Diethylphthalate	ND	67.3	135	"	"	"	"	
Dimethylphthalate	ND	67.3	135	"	"	"	"	
Di-n-butylphthalate	ND	67.3	135	"	"	"	"	
Di-n-octyl phthalate	ND	67.3	135	"	"	"	"	
N-Nitrosodimethylamine	ND	16.9	33.8	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	16.9	33.8	"	"	"	"	
N-Nitrosodiphenylamine	ND	16.9	33.8	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	16.9	33.8	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	16.9	33.8	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	16.9	33.8	"	"	"	"	
Hexachlorobenzene	ND	6.73	13.5	"	"	"	"	
Hexachlorobutadiene	ND	16.9	33.8	"	"	"	"	
Hexachlorocyclopentadiene	ND	33.8	67.3	"	"	"	"	
Hexachloroethane	ND	16.9	33.8	"	"	"	"	
2-Chloronaphthalene	ND	6.73	13.5	"	"	"	"	
1,2-Dichlorobenzene	ND	16.9	33.8	"	"	"	"	
1,3-Dichlorobenzene	ND	16.9	33.8	"	"	"	"	
1,4-Dichlorobenzene	ND	16.9	33.8	"	"	"	"	
1,2,4-Trichlorobenzene	ND	16.9	33.8	"	"	"	"	
4-Bromophenyl phenyl ether	ND	16.9	33.8	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	16.9	33.8	"	"	"	"	
Aniline	ND	33.8	67.3	"	"	"	"	
4-Chloroaniline	ND	16.9	33.8	"	"	"	"	
2-Nitroaniline	ND	135	270	"	"	"	"	
3-Nitroaniline	ND	135	270	"	"	"	"	
4-Nitroaniline	ND	135	270	"	"	"	"	
Nitrobenzene	ND	67.3	135	"	"	"	"	
2,4-Dinitrotoluene	ND	67.3	135	"	"	"	"	
2,6-Dinitrotoluene	ND	67.3	135	"	"	"	"	
Benzoic acid	ND	845	1690	"	"	"	"	
Benzyl alcohol	ND	33.8	67.3	"	"	"	"	
Isophorone	ND	16.9	33.8	"	"	"	"	
Azobenzene (1,2-DPH)	ND	16.9	33.8	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED001 (A6D0013-06RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Bis(2-Ethylhexyl) adipate	ND	169	338	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	67.3	135	"	"	"	"	
1,2-Dinitrobenzene	ND	169	338	"	"	"	"	
1,3-Dinitrobenzene	ND	169	338	"	"	"	"	
1,4-Dinitrobenzene	ND	169	338	"	"	"	"	
Pyridine	ND	33.8	67.3	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 85 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*82 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*88 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*89 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*78 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*101 %*	*Limits: 39-132 %*	"	"	"	
5237-160331-NDP-SED005 (A6D0013-08RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Acenaphthene	**187**	8.95	18.0	ug/kg dry	4	04/07/16 14:23	EPA 8270D	
Acenaphthylene	**12.6**	8.95	18.0	"	"	"	"	J
Anthracene	**38.5**	8.95	18.0	"	"	"	"	
Benz(a)anthracene	**122**	8.95	18.0	"	"	"	"	
Benzo(a)pyrene	**162**	13.5	26.9	"	"	"	"	
Benzo(b)fluoranthene	**196**	13.5	26.9	"	"	"	"	M-02
Benzo(k)fluoranthene	**82.4**	13.5	26.9	"	"	"	"	M-02
Benzo(g,h,i)perylene	**133**	8.95	18.0	"	"	"	"	
Chrysene	**143**	8.95	18.0	"	"	"	"	
Dibenz(a,h)anthracene	**27.0**	8.95	18.0	"	"	"	"	
Fluoranthene	**296**	8.95	18.0	"	"	"	"	
Fluorene	**63.4**	8.95	18.0	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**122**	8.95	18.0	"	"	"	"	
1-Methylnaphthalene	ND	18.0	35.9	"	"	"	"	
2-Methylnaphthalene	ND	18.0	35.9	"	"	"	"	
Naphthalene	ND	18.0	35.9	"	"	"	"	
Phenanthrene	**137**	8.95	18.0	"	"	"	"	
Pyrene	**331**	8.95	18.0	"	"	"	"	
Carbazole	**20.0**	13.5	26.9	"	"	"	"	J
Dibenzofuran	**18.9**	8.95	18.0	"	"	"	"	
4-Chloro-3-methylphenol	ND	89.5	180	"	"	"	"	
2-Chlorophenol	ND	44.9	89.5	"	"	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED005 (A6D0013-08RE1)			**Matrix: Sediment**		**Batch: 6040143**			
2,4-Dichlorophenol	ND	44.9	89.5	ug/kg dry	4	"	EPA 8270D	
2,4-Dimethylphenol	ND	44.9	89.5	"	"	"	"	
2,4-Dinitrophenol	ND	224	449	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	224	449	"	"	"	"	
2-Methylphenol	ND	22.4	44.9	"	"	"	"	
3+4-Methylphenol(s)	**39.1**	22.4	44.9	"	"	"	"	J
2-Nitrophenol	ND	89.5	180	"	"	"	"	
4-Nitrophenol	ND	89.5	180	"	"	"	"	
Pentachlorophenol (PCP)	ND	89.5	180	"	"	"	"	
Phenol	ND	35.9	35.9	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	44.9	89.5	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	44.9	89.5	"	"	"	"	
2,4,5-Trichlorophenol	ND	44.9	89.5	"	"	"	"	
2,4,6-Trichlorophenol	ND	44.9	89.5	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	135	269	"	"	"	"	
Butyl benzyl phthalate	ND	89.5	180	"	"	"	"	
Diethylphthalate	ND	89.5	180	"	"	"	"	
Dimethylphthalate	ND	89.5	180	"	"	"	"	
Di-n-butylphthalate	ND	89.5	180	"	"	"	"	
Di-n-octyl phthalate	ND	89.5	180	"	"	"	"	
N-Nitrosodimethylamine	ND	22.4	44.9	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	22.4	44.9	"	"	"	"	
N-Nitrosodiphenylamine	ND	22.4	44.9	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	22.4	44.9	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	22.4	44.9	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	22.4	44.9	"	"	"	"	
Hexachlorobenzene	ND	8.95	18.0	"	"	"	"	
Hexachlorobutadiene	ND	22.4	44.9	"	"	"	"	
Hexachlorocyclopentadiene	ND	44.9	89.5	"	"	"	"	
Hexachloroethane	ND	22.4	44.9	"	"	"	"	
2-Chloronaphthalene	ND	8.95	18.0	"	"	"	"	
1,2-Dichlorobenzene	ND	22.4	44.9	"	"	"	"	
1,3-Dichlorobenzene	ND	22.4	44.9	"	"	"	"	
1,4-Dichlorobenzene	ND	22.4	44.9	"	"	"	"	
1,2,4-Trichlorobenzene	ND	22.4	44.9	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED005 (A6D0013-08RE1)			**Matrix: Sediment**		**Batch: 6040143**			
4-Bromophenyl phenyl ether	ND	22.4	44.9	ug/kg dry	4	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	22.4	44.9	"	"	"	"	
Aniline	ND	44.9	89.5	"	"	"	"	
4-Chloroaniline	ND	22.4	44.9	"	"	"	"	
2-Nitroaniline	ND	180	359	"	"	"	"	
3-Nitroaniline	ND	180	359	"	"	"	"	
4-Nitroaniline	ND	180	359	"	"	"	"	
Nitrobenzene	ND	89.5	180	"	"	"	"	
2,4-Dinitrotoluene	ND	89.5	180	"	"	"	"	
2,6-Dinitrotoluene	ND	89.5	180	"	"	"	"	
Benzoic acid	ND	1120	2240	"	"	"	"	
Benzyl alcohol	**80.0**	44.9	89.5	"	"	"	"	J
Isophorone	ND	22.4	44.9	"	"	"	"	
Azobenzene (1,2-DPH)	ND	22.4	44.9	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	224	449	"	"	"	"	
3,3'-Dichlorobenzidine	ND	89.5	180	"	"	"	"	
1,2-Dinitrobenzene	ND	224	449	"	"	"	"	
1,3-Dinitrobenzene	ND	224	449	"	"	"	"	
1,4-Dinitrobenzene	ND	224	449	"	"	"	"	
Pyridine	ND	44.9	89.5	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 73 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*56 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*79 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*62 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*69 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*88 %*	*Limits: 39-132 %*	"	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED004 (A6D0013-10RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Acenaphthene	**1030**	10.6	21.2	ug/kg dry	4	04/07/16 15:01	EPA 8270D	
Acenaphthylene	**12.5**	10.6	21.2	"	"	"	"	J
Anthracene	**113**	10.6	21.2	"	"	"	"	
Benz(a)anthracene	**190**	10.6	21.2	"	"	"	"	
Benzo(a)pyrene	**233**	15.9	31.8	"	"	"	"	
Benzo(b)fluoranthene	**305**	15.9	31.8	"	"	"	"	M-02
Benzo(k)fluoranthene	**120**	15.9	31.8	"	"	"	"	M-02
Benzo(g,h,i)perylene	**188**	10.6	21.2	"	"	"	"	
Chrysene	**234**	10.6	21.2	"	"	"	"	
Dibenz(a,h)anthracene	**35.5**	10.6	21.2	"	"	"	"	
Fluoranthene	**500**	10.6	21.2	"	"	"	"	
Fluorene	**340**	10.6	21.2	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**164**	10.6	21.2	"	"	"	"	
1-Methylnaphthalene	**54.6**	21.2	42.3	"	"	"	"	
2-Methylnaphthalene	ND	21.2	42.3	"	"	"	"	
Naphthalene	**63.5**	21.2	42.3	"	"	"	"	
Phenanthrene	**336**	10.6	21.2	"	"	"	"	
Pyrene	**488**	10.6	21.2	"	"	"	"	
Carbazole	**47.1**	15.9	31.8	"	"	"	"	
Dibenzofuran	**143**	10.6	21.2	"	"	"	"	
4-Chloro-3-methylphenol	ND	106	212	"	"	"	"	
2-Chlorophenol	ND	53.0	106	"	"	"	"	
2,4-Dichlorophenol	ND	53.0	106	"	"	"	"	
2,4-Dimethylphenol	ND	53.0	106	"	"	"	"	
2,4-Dinitrophenol	ND	264	530	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	264	530	"	"	"	"	
2-Methylphenol	ND	26.4	53.0	"	"	"	"	
3+4-Methylphenol(s)	**26.4**	26.4	53.0	"	"	"	"	J
2-Nitrophenol	ND	106	212	"	"	"	"	
4-Nitrophenol	ND	106	212	"	"	"	"	
Pentachlorophenol (PCP)	ND	106	212	"	"	"	"	
Phenol	ND	62.7	62.7	"	"	"	"	R-02
2,3,4,6-Tetrachlorophenol	ND	53.0	106	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	53.0	106	"	"	"	"	
2,4,5-Trichlorophenol	ND	53.0	106	"	"	"	"	
2,4,6-Trichlorophenol	ND	53.0	106	"	"	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED004 (A6D0013-10RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Bis(2-ethylhexyl)phthalate	ND	159	318	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	106	212	"	"	"	"	
Diethylphthalate	ND	106	212	"	"	"	"	
Dimethylphthalate	ND	106	212	"	"	"	"	
Di-n-butylphthalate	ND	106	212	"	"	"	"	
Di-n-octyl phthalate	ND	106	212	"	"	"	"	
N-Nitrosodimethylamine	ND	26.4	53.0	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	26.4	53.0	"	"	"	"	
N-Nitrosodiphenylamine	ND	26.4	53.0	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	26.4	53.0	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	53.0	53.0	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	26.4	53.0	"	"	"	"	
Hexachlorobenzene	ND	10.6	21.2	"	"	"	"	
Hexachlorobutadiene	ND	26.4	53.0	"	"	"	"	
Hexachlorocyclopentadiene	ND	53.0	106	"	"	"	"	
Hexachloroethane	ND	26.4	53.0	"	"	"	"	
2-Chloronaphthalene	ND	10.6	21.2	"	"	"	"	
1,2-Dichlorobenzene	ND	26.4	53.0	"	"	"	"	
1,3-Dichlorobenzene	ND	26.4	53.0	"	"	"	"	
1,4-Dichlorobenzene	ND	26.4	53.0	"	"	"	"	
1,2,4-Trichlorobenzene	ND	26.4	53.0	"	"	"	"	
4-Bromophenyl phenyl ether	ND	26.4	53.0	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	26.4	53.0	"	"	"	"	
Aniline	ND	389	389	"	"	"	"	R-02
4-Chloroaniline	ND	26.4	53.0	"	"	"	"	
2-Nitroaniline	ND	212	423	"	"	"	"	
3-Nitroaniline	ND	212	423	"	"	"	"	
4-Nitroaniline	ND	212	423	"	"	"	"	
Nitrobenzene	ND	106	212	"	"	"	"	
2,4-Dinitrotoluene	ND	106	212	"	"	"	"	
2,6-Dinitrotoluene	ND	106	212	"	"	"	"	
Benzoic acid	ND	1330	2640	"	"	"	"	
Benzyl alcohol	ND	53.0	106	"	"	"	"	
Isophorone	ND	26.4	53.0	"	"	"	"	
Azobenzene (1,2-DPH)	ND	26.4	53.0	"	"	"	"	

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED004 (A6D0013-10RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Bis(2-Ethylhexyl) adipate	ND	264	530	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	106	212	"	"	"	"	
1,2-Dinitrobenzene	ND	264	530	"	"	"	"	
1,3-Dinitrobenzene	ND	264	530	"	"	"	"	
1,4-Dinitrobenzene	ND	264	530	"	"	"	"	
Pyridine	ND	53.0	106	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 84 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*67 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*91 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*71 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*86 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*96 %*	*Limits: 39-132 %*	"	"	"	
5237-160331-NDP-EMB001 (A6D0013-12RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Acenaphthene	**631**	18.9	37.9	ug/kg dry	10	04/07/16 15:38	EPA 8270D	
Acenaphthylene	**49.7**	18.9	37.9	"	"	"	"	
Anthracene	**713**	18.9	37.9	"	"	"	"	
Benz(a)anthracene	**3930**	18.9	37.9	"	"	"	"	
Benzo(a)pyrene	**5390**	28.4	56.8	"	"	"	"	
Benzo(b)fluoranthene	**6790**	28.4	56.8	"	"	"	"	M-02
Benzo(k)fluoranthene	**2640**	28.4	56.8	"	"	"	"	M-02
Benzo(g,h,i)perylene	**3620**	18.9	37.9	"	"	"	"	
Chrysene	**4420**	18.9	37.9	"	"	"	"	
Dibenz(a,h)anthracene	**856**	18.9	37.9	"	"	"	"	
Fluoranthene	**5610**	18.9	37.9	"	"	"	"	
Fluorene	**333**	18.9	37.9	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**3640**	18.9	37.9	"	"	"	"	
1-Methylnaphthalene	ND	37.9	75.7	"	"	"	"	
2-Methylnaphthalene	**55.2**	37.9	75.7	"	"	"	"	J
Naphthalene	**120**	37.9	75.7	"	"	"	"	
Phenanthrene	**2940**	18.9	37.9	"	"	"	"	
Pyrene	**5350**	18.9	37.9	"	"	"	"	
Carbazole	**716**	28.4	56.8	"	"	"	"	
Dibenzofuran	**164**	18.9	37.9	"	"	"	"	
4-Chloro-3-methylphenol	ND	189	379	"	"	"	"	
2-Chlorophenol	ND	94.7	189	"	"	"	"	
2,4-Dichlorophenol	ND	94.7	189	"	"	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-EMB001 (A6D0013-12RE1)			**Matrix: Sediment**		**Batch: 6040143**			
2,4-Dimethylphenol	ND	94.7	189	ug/kg dry	10	"	EPA 8270D	
2,4-Dinitrophenol	ND	473	947	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	473	947	"	"	"	"	
2-Methylphenol	ND	47.3	94.7	"	"	"	"	
3+4-Methylphenol(s)	ND	47.3	94.7	"	"	"	"	
2-Nitrophenol	ND	189	379	"	"	"	"	
4-Nitrophenol	ND	189	379	"	"	"	"	
Pentachlorophenol (PCP)	ND	189	379	"	"	"	"	
Phenol	ND	37.9	75.7	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	94.7	189	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	94.7	189	"	"	"	"	
2,4,5-Trichlorophenol	ND	94.7	189	"	"	"	"	
2,4,6-Trichlorophenol	ND	94.7	189	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	284	568	"	"	"	"	
Butyl benzyl phthalate	ND	189	379	"	"	"	"	
Diethylphthalate	ND	189	379	"	"	"	"	
Dimethylphthalate	ND	189	379	"	"	"	"	
Di-n-butylphthalate	ND	189	379	"	"	"	"	
Di-n-octyl phthalate	ND	189	379	"	"	"	"	
N-Nitrosodimethylamine	ND	47.3	94.7	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	47.3	94.7	"	"	"	"	
N-Nitrosodiphenylamine	ND	47.3	94.7	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	47.3	94.7	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	47.3	94.7	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	47.3	94.7	"	"	"	"	
Hexachlorobenzene	ND	18.9	37.9	"	"	"	"	
Hexachlorobutadiene	ND	47.3	94.7	"	"	"	"	
Hexachlorocyclopentadiene	ND	94.7	189	"	"	"	"	
Hexachloroethane	ND	47.3	94.7	"	"	"	"	
2-Chloronaphthalene	ND	18.9	37.9	"	"	"	"	
1,2-Dichlorobenzene	ND	47.3	94.7	"	"	"	"	
1,3-Dichlorobenzene	ND	47.3	94.7	"	"	"	"	
1,4-Dichlorobenzene	ND	47.3	94.7	"	"	"	"	
1,2,4-Trichlorobenzene	ND	47.3	94.7	"	"	"	"	
4-Bromophenyl phenyl ether	ND	47.3	94.7	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-EMB001 (A6D0013-12RE1)			**Matrix: Sediment**		**Batch: 6040143**			
4-Chlorophenyl phenyl ether	ND	47.3	94.7	ug/kg dry	10	"	EPA 8270D	
Aniline	ND	94.7	189	"	"	"	"	
4-Chloroaniline	ND	47.3	94.7	"	"	"	"	
2-Nitroaniline	ND	379	757	"	"	"	"	
3-Nitroaniline	ND	379	757	"	"	"	"	
4-Nitroaniline	ND	379	757	"	"	"	"	
Nitrobenzene	ND	189	379	"	"	"	"	
2,4-Dinitrotoluene	ND	189	379	"	"	"	"	
2,6-Dinitrotoluene	ND	189	379	"	"	"	"	
Benzoic acid	ND	2370	4730	"	"	"	"	
Benzyl alcohol	ND	94.7	189	"	"	"	"	
Isophorone	ND	47.3	94.7	"	"	"	"	
Azobenzene (1,2-DPH)	ND	47.3	94.7	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	473	947	"	"	"	"	
3,3'-Dichlorobenzidine	ND	189	379	"	"	"	"	
1,2-Dinitrobenzene	ND	473	947	"	"	"	"	
1,3-Dinitrobenzene	ND	473	947	"	"	"	"	
1,4-Dinitrobenzene	ND	473	947	"	"	"	"	
Pyridine	ND	94.7	189	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 92 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*75 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*94 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*81 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*86 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*101 %*	*Limits: 39-132 %*	"	"	"	

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02RE1)			**Matrix: Sediment**		**Batch: 6040143**			
C1-Chrysenes/Benz(a)anthracenes	**75.0**	72.7	72.7	ug/kg dry	4	04/07/16 11:53	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**103**	72.7	72.7	"	"	"	"	
C1-Fluorenes	ND	72.7	72.7	"	"	"	"	
C1-Phenanthrenes/Anthracenes	ND	72.7	72.7	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	72.7	72.7	"	"	"	"	
C2-Fluorenes	ND	72.7	72.7	"	"	"	"	
C2-Naphthalenes	ND	72.7	72.7	"	"	"	"	
C2-Phenanthrenes/Anthracenes	**77.5**	72.7	72.7	"	"	"	"	Q-42
C3-Chrysenes/Benz(a)anthracenes	ND	72.7	72.7	"	"	"	"	
C3-Fluorenes	ND	72.7	72.7	"	"	"	"	
C3-Naphthalenes	ND	72.7	72.7	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	72.7	72.7	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	145	145	"	"	"	"	
C4-Naphthalenes	ND	72.7	72.7	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	145	145	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 88 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*95 %*	*Limits: 40-120 %*	"	"	"	
5237-160331-NDP-SED002 (A6D0013-04RE1)			**Matrix: Sediment**		**Batch: 6040143**			
C1-Chrysenes/Benz(a)anthracenes	**116**	74.4	74.4	ug/kg dry	4	04/07/16 13:07	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**131**	74.4	74.4	"	"	"	"	
C1-Fluorenes	ND	74.4	74.4	"	"	"	"	
C1-Phenanthrenes/Anthracenes	ND	74.4	74.4	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	74.4	74.4	"	"	"	"	
C2-Fluorenes	ND	74.4	74.4	"	"	"	"	
C2-Naphthalenes	ND	74.4	74.4	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	74.4	74.4	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	74.4	74.4	"	"	"	"	
C3-Fluorenes	ND	74.4	74.4	"	"	"	"	
C3-Naphthalenes	ND	74.4	74.4	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	74.4	74.4	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	149	149	"	"	"	"	
C4-Naphthalenes	ND	74.4	74.4	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	149	149	"	"	"	"	

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED002 (A6D0013-04RE1)			**Matrix: Sediment**		**Batch: 6040143**			
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 79 %*	*Limits: 40-120 %*	4	"	GC/MS Scan	
Benzo(a)pyrene-d12 (Surr)			*79 %*	*Limits: 40-120 %*	"	"	"	
5237-160331-NDP-SED001 (A6D0013-06RE1)			**Matrix: Sediment**		**Batch: 6040143**			**R-04**
C1-Chrysenes/Benz(a)anthracenes	ND	67.5	67.5	ug/kg dry	4	04/07/16 13:45	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	ND	67.5	67.5	"	"	"	"	
C1-Fluorenes	ND	67.5	67.5	"	"	"	"	
C1-Phenanthrenes/Anthracenes	ND	67.5	67.5	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	67.5	67.5	"	"	"	"	
C2-Fluorenes	ND	67.5	67.5	"	"	"	"	
C2-Naphthalenes	ND	67.5	67.5	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	67.5	67.5	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	67.5	67.5	"	"	"	"	
C3-Fluorenes	ND	67.5	67.5	"	"	"	"	
C3-Naphthalenes	ND	67.5	67.5	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	67.5	67.5	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	135	135	"	"	"	"	
C4-Naphthalenes	ND	67.5	67.5	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	135	135	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 82 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*80 %*	*Limits: 40-120 %*	"	"	"	
5237-160331-NDP-SED005 (A6D0013-08RE1)			**Matrix: Sediment**		**Batch: 6040143**			
C1-Chrysenes/Benz(a)anthracenes	ND	89.7	89.7	ug/kg dry	4	04/07/16 14:23	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**107**	89.7	89.7	"	"	"	"	
C1-Fluorenes	ND	89.7	89.7	"	"	"	"	
C1-Phenanthrenes/Anthracenes	ND	89.7	89.7	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	89.7	89.7	"	"	"	"	
C2-Fluorenes	ND	89.7	89.7	"	"	"	"	
C2-Naphthalenes	ND	89.7	89.7	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	89.7	89.7	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	89.7	89.7	"	"	"	"	
C3-Fluorenes	ND	89.7	89.7	"	"	"	"	
C3-Naphthalenes	ND	89.7	89.7	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	89.7	89.7	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	179	179	"	"	"	"	

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED005 (A6D0013-08RE1)			**Matrix: Sediment**		**Batch: 6040143**			
C4-Naphthalenes	ND	89.7	89.7	ug/kg dry	4	"	GC/MS Scan	
C4-Phenanthrenes/Anthracenes	ND	179	179	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 63 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*56 %*	*Limits: 40-120 %*	"	"	"	
5237-160331-NDP-SED004 (A6D0013-10RE1)			**Matrix: Sediment**		**Batch: 6040143**			
C1-Chrysenes/Benz(a)anthracenes	**145**	106	106	ug/kg dry	4	04/07/16 15:01	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**183**	106	106	"	"	"	"	
C1-Fluorenes	**129**	106	106	"	"	"	"	
C1-Phenanthrenes/Anthracenes	**164**	106	106	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	**193**	106	106	"	"	"	"	
C2-Fluorenes	ND	106	106	"	"	"	"	
C2-Naphthalenes	**106**	106	106	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	106	106	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	**266**	106	106	"	"	"	"	
C3-Fluorenes	ND	106	106	"	"	"	"	
C3-Naphthalenes	**134**	106	106	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	106	106	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	212	212	"	"	"	"	
C4-Naphthalenes	**106**	106	106	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	212	212	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 73 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*61 %*	*Limits: 40-120 %*	"	"	"	
5237-160331-NDP-EMB001 (A6D0013-12RE1)			**Matrix: Sediment**		**Batch: 6040143**			
C1-Chrysenes/Benz(a)anthracenes	**1960**	189	189	ug/kg dry	10	04/07/16 15:38	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**2700**	189	189	"	"	"	"	
C1-Fluorenes	ND	189	189	"	"	"	"	
C1-Phenanthrenes/Anthracenes	**1080**	189	189	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	**593**	189	189	"	"	"	"	
C2-Fluorenes	ND	189	189	"	"	"	"	
C2-Naphthalenes	ND	189	189	"	"	"	"	
C2-Phenanthrenes/Anthracenes	**430**	189	189	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-EMB001 (A6D0013-12RE1)			**Matrix: Sediment**		**Batch: 6040143**			
C3-Chrysenes/Benz(a)anthracenes	**426**	189	189	ug/kg dry	10	"	GC/MS Scan	
C3-Fluorenes	ND	189	189	"	"	"	"	
C3-Naphthalenes	ND	189	189	"	"	"	"	
C3-Phenanthrenes/Anthracenes	**196**	189	189	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	**606**	379	379	"	"	"	"	
C4-Naphthalenes	ND	189	189	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	379	379	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 87 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*84 %*	*Limits: 40-120 %*	"	"	"	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**12400**	16.7	33.5	mg/kg dry	5	04/11/16 22:30	EPA 6020A	
Antimony	ND	0.335	0.670	"	"	"	"	
Arsenic	**2.34**	0.335	1.34	"	"	"	"	
Barium	**184**	0.335	0.670	"	"	"	"	
Beryllium	**0.797**	0.0670	0.134	"	"	"	"	
Cadmium	**0.355**	0.335	0.670	"	"	"	"	J
Calcium	**3710**	670	1340	"	"	"	"	
Chromium	**17.3**	0.670	1.34	"	"	"	"	
Copper	**13.8**	0.670	1.34	"	"	"	"	
Lead	**10.4**	0.335	0.670	"	"	"	"	
Magnesium	**1650**	16.7	33.5	"	"	"	"	
Mercury	ND	0.0268	0.0536	"	"	"	"	
Nickel	**10.5**	0.670	1.34	"	"	"	"	
Potassium	**317**	33.5	67.0	"	"	"	"	
Selenium	ND	0.670	1.34	"	"	"	"	
Silver	ND	0.335	0.670	"	"	"	"	
Sodium	**157**	33.5	67.0	"	"	"	"	
Thallium	ND	0.335	0.670	"	"	"	"	
Vanadium	**101**	0.670	1.34	"	"	"	"	
Zinc	**75.6**	1.34	2.68	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02RE1)			**Matrix: Sediment**					
Batch: 6040194								
Iron	**41700**	167	335	mg/kg dry	50	04/12/16 15:41	EPA 6020A	
Manganese	**1420**	3.35	6.70	"	"	"	"	
5237-160331-NDP-SED002 (A6D0013-04)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**8600**	17.7	35.5	mg/kg dry	5	04/11/16 22:33	EPA 6020A	
Antimony	ND	0.355	0.709	"	"	"	"	
Arsenic	**2.18**	0.355	1.42	"	"	"	"	
Barium	**278**	0.355	0.709	"	"	"	"	
Beryllium	**0.567**	0.0709	0.142	"	"	"	"	
Cadmium	**0.390**	0.355	0.709	"	"	"	"	J
Calcium	**3280**	709	1420	"	"	"	"	
Chromium	**12.3**	0.709	1.42	"	"	"	"	
Copper	**16.5**	0.709	1.42	"	"	"	"	
Iron	**26700**	17.7	35.5	"	"	"	"	
Lead	**11.6**	0.355	0.709	"	"	"	"	
Magnesium	**1800**	17.7	35.5	"	"	"	"	
Mercury	ND	0.0284	0.0567	"	"	"	"	
Nickel	**9.40**	0.709	1.42	"	"	"	"	
Potassium	**337**	35.5	70.9	"	"	"	"	
Selenium	ND	0.709	1.42	"	"	"	"	
Silver	ND	0.355	0.709	"	"	"	"	
Sodium	**146**	35.5	70.9	"	"	"	"	
Thallium	ND	0.355	0.709	"	"	"	"	
Vanadium	**83.3**	0.709	1.42	"	"	"	"	
Zinc	**73.7**	1.42	2.84	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED002 (A6D0013-04RE1)			**Matrix: Sediment**					
Batch: 6040194								
Manganese	**1640**	3.55	7.09	mg/kg dry	50	04/12/16 15:44	EPA 6020A	
5237-160331-NDP-SED001 (A6D0013-06)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**7770**	15.9	31.8	mg/kg dry	5	04/11/16 22:36	EPA 6020A	
Antimony	ND	0.318	0.635	"	"	"	"	
Arsenic	**1.63**	0.318	1.27	"	"	"	"	
Barium	**156**	0.318	0.635	"	"	"	"	
Beryllium	**0.578**	0.0635	0.127	"	"	"	"	
Cadmium	ND	0.318	0.635	"	"	"	"	
Calcium	**3430**	635	1270	"	"	"	"	
Chromium	**13.7**	0.635	1.27	"	"	"	"	
Copper	**11.4**	0.635	1.27	"	"	"	"	
Iron	**29900**	15.9	31.8	"	"	"	"	
Lead	**10.7**	0.318	0.635	"	"	"	"	
Magnesium	**1400**	15.9	31.8	"	"	"	"	
Manganese	**483**	0.318	0.635	"	"	"	"	
Mercury	ND	0.0254	0.0508	"	"	"	"	
Nickel	**6.52**	0.635	1.27	"	"	"	"	
Potassium	**272**	31.8	63.5	"	"	"	"	
Selenium	ND	0.635	1.27	"	"	"	"	
Silver	ND	0.318	0.635	"	"	"	"	
Sodium	**126**	31.8	63.5	"	"	"	"	
Thallium	ND	0.318	0.635	"	"	"	"	
Vanadium	**73.1**	0.635	1.27	"	"	"	"	
Zinc	**84.1**	1.27	2.54	"	"	"	"	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED005 (A6D0013-08)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**8240**	21.5	43.0	mg/kg dry	5	04/11/16 22:39	EPA 6020A	
Antimony	ND	0.430	0.861	"	"	"	"	
Arsenic	**4.63**	0.430	1.72	"	"	"	"	
Barium	**115**	0.430	0.861	"	"	"	"	
Beryllium	**0.465**	0.0861	0.172	"	"	"	"	
Cadmium	ND	0.430	0.861	"	"	"	"	
Calcium	**3140**	861	1720	"	"	"	"	
Chromium	**11.7**	0.861	1.72	"	"	"	"	
Copper	**16.8**	0.861	1.72	"	"	"	"	
Iron	**24900**	21.5	43.0	"	"	"	"	
Lead	**14.9**	0.430	0.861	"	"	"	"	
Magnesium	**1630**	21.5	43.0	"	"	"	"	
Manganese	**503**	0.430	0.861	"	"	"	"	
Mercury	ND	0.0344	0.0689	"	"	"	"	
Nickel	**9.46**	0.861	1.72	"	"	"	"	
Potassium	**372**	43.0	86.1	"	"	"	"	
Selenium	ND	0.861	1.72	"	"	"	"	
Silver	ND	0.430	0.861	"	"	"	"	
Sodium	**168**	43.0	86.1	"	"	"	"	
Thallium	ND	0.430	0.861	"	"	"	"	
Vanadium	**69.5**	0.861	1.72	"	"	"	"	
Zinc	**87.0**	1.72	3.44	"	"	"	"	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED004 (A6D0013-10)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**8500**	25.7	51.5	mg/kg dry	5	04/11/16 22:42	EPA 6020A	
Antimony	ND	0.515	1.03	"	"	"	"	
Arsenic	**5.81**	0.515	2.06	"	"	"	"	
Barium	**106**	0.515	1.03	"	"	"	"	
Beryllium	**0.422**	0.103	0.206	"	"	"	"	
Cadmium	ND	0.515	1.03	"	"	"	"	
Calcium	**2610**	1030	2060	"	"	"	"	
Chromium	**14.4**	1.03	2.06	"	"	"	"	
Copper	**19.4**	1.03	2.06	"	"	"	"	
Iron	**21600**	25.7	51.5	"	"	"	"	
Lead	**19.2**	0.515	1.03	"	"	"	"	
Magnesium	**1680**	25.7	51.5	"	"	"	"	
Manganese	**421**	0.515	1.03	"	"	"	"	
Mercury	ND	0.0412	0.0824	"	"	"	"	
Nickel	**10.3**	1.03	2.06	"	"	"	"	
Potassium	**402**	51.5	103	"	"	"	"	
Selenium	ND	1.03	2.06	"	"	"	"	
Silver	ND	0.515	1.03	"	"	"	"	
Sodium	**147**	51.5	103	"	"	"	"	
Thallium	ND	0.515	1.03	"	"	"	"	
Vanadium	**64.3**	1.03	2.06	"	"	"	"	
Zinc	**94.2**	2.06	4.12	"	"	"	"	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-EMB001 (A6D0013-12)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**9120**	17.6	35.2	mg/kg dry	5	04/11/16 22:44	EPA 6020A	
Antimony	ND	0.352	0.703	"	"	"	"	
Arsenic	**1.81**	0.352	1.41	"	"	"	"	
Barium	**107**	0.352	0.703	"	"	"	"	
Beryllium	**0.429**	0.0703	0.141	"	"	"	"	
Cadmium	ND	0.352	0.703	"	"	"	"	
Calcium	**2490**	703	1410	"	"	"	"	
Chromium	**14.3**	0.703	1.41	"	"	"	"	
Copper	**14.2**	0.703	1.41	"	"	"	"	
Iron	**25200**	17.6	35.2	"	"	"	"	
Lead	**10.6**	0.352	0.703	"	"	"	"	
Magnesium	**1700**	17.6	35.2	"	"	"	"	
Manganese	**511**	0.352	0.703	"	"	"	"	
Mercury	ND	0.0281	0.0562	"	"	"	"	
Nickel	**8.89**	0.703	1.41	"	"	"	"	
Potassium	**345**	35.2	70.3	"	"	"	"	
Selenium	ND	0.703	1.41	"	"	"	"	
Silver	ND	0.352	0.703	"	"	"	"	
Sodium	**99.8**	35.2	70.3	"	"	"	"	
Thallium	ND	0.352	0.703	"	"	"	"	
Vanadium	**83.0**	0.703	1.41	"	"	"	"	
Zinc	**63.1**	1.41	2.81	"	"	"	"	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02)			**Matrix: Sediment**					
Batch: 6040241								
Total Organic Carbon	**7800**	100	200	mg/kg	1	04/14/16 14:55	SM 5310B MOD	
5237-160331-NDP-SED002 (A6D0013-04)			**Matrix: Sediment**					
Batch: 6040241								
Total Organic Carbon	**11000**	100	200	mg/kg	1	04/14/16 14:55	SM 5310B MOD	
5237-160331-NDP-SED001 (A6D0013-06)			**Matrix: Sediment**					
Batch: 6040241								
Total Organic Carbon	**2600**	100	200	mg/kg	1	04/14/16 14:55	SM 5310B MOD	
5237-160331-NDP-SED005 (A6D0013-08)			**Matrix: Sediment**					
Batch: 6040241								
Total Organic Carbon	**21000**	100	200	mg/kg	1	04/14/16 14:55	SM 5310B MOD	
5237-160331-NDP-SED004 (A6D0013-10)			**Matrix: Sediment**					
Batch: 6040241								
Total Organic Carbon	**29000**	100	200	mg/kg	1	04/14/16 14:55	SM 5310B MOD	
5237-160331-NDP-EMB001 (A6D0013-12)			**Matrix: Sediment**					
Batch: 6040241								
Total Organic Carbon	**14000**	100	200	mg/kg	1	04/14/16 14:55	SM 5310B MOD	

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Ammonia by UV Digestion/Gas Diffusion/Colorimetric Detection

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003 (A6D0013-02)			**Matrix: Sediment**		**Batch: 6040054**			
Ammonia as N	**0.435**	0.121	0.242	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160331-NDP-SED002 (A6D0013-04)			**Matrix: Sediment**		**Batch: 6040054**			
Ammonia as N	**3.33**	0.141	0.281	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160331-NDP-SED001 (A6D0013-06)			**Matrix: Sediment**		**Batch: 6040054**			
Ammonia as N	**5.98**	0.126	0.251	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160331-NDP-SED005 (A6D0013-08)			**Matrix: Sediment**		**Batch: 6040054**			
Ammonia as N	**31.7**	1.51	3.02	mg/kg dry	10	04/06/16 19:15	SM4500-NH3 Mod	
5237-160331-NDP-SED004 (A6D0013-10)			**Matrix: Sediment**		**Batch: 6040054**			
Ammonia as N	**21.1**	0.175	0.349	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160331-NDP-EMB001 (A6D0013-12)			**Matrix: Sediment**		**Batch: 6040054**			
Ammonia as N	**9.74**	0.134	0.269	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160331-NDP-SED003G (A6D0013-01)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**72.2**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	A-01
5237-160331-NDP-SED003 (A6D0013-02)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**72.2**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	
5237-160331-NDP-SED002G (A6D0013-03)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**67.8**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	A-01
5237-160331-NDP-SED002 (A6D0013-04)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**67.8**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	
5237-160331-NDP-SED001G (A6D0013-05)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**78.1**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	A-01
5237-160331-NDP-SED001 (A6D0013-06)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**78.1**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	
5237-160331-NDP-SED005G (A6D0013-07)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**56.5**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	A-01
5237-160331-NDP-SED005 (A6D0013-08)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**56.5**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	
5237-160331-NDP-SED004G (A6D0013-09)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**48.6**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	A-01
5237-160331-NDP-SED004 (A6D0013-10)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**48.6**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	
5237-160331-NDP-EMB001G (A6D0013-11)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**69.5**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	A-01
5237-160331-NDP-EMB001 (A6D0013-12)			**Matrix: Sediment**		**Batch: 6040048**			
% Solids	**69.5**	1.00	1.00	% by Weight	1	04/05/16 08:12	EPA 8000C	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040064 - EPA 3546 (Fuels)												**Sediment**
Blank (6040064-BLK1)					Prepared: 04/04/16 12:54 Analyzed: 04/04/16 20:15							
NWTPH-Dx												
Diesel	ND	8.33	16.7	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 84 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS (6040064-BS1)					Prepared: 04/04/16 12:54 Analyzed: 04/04/16 20:36							
NWTPH-Dx												
Diesel	103	10.0	20.0	mg/kg wet	1	125	---	82	76-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*		*Dilution: 1x*						
Duplicate (6040064-DUP1)					Prepared: 04/04/16 12:54 Analyzed: 04/04/16 21:20							
QC Source Sample: 5237-160331-NDP-SED003 (A6D0013-02)												
NWTPH-Dx												
Diesel	ND	12.9	25.8	mg/kg dry	1	---	17.1	---	---	***	30%	
Oil	**52.4**	25.8	51.6	"	"	---	44.8	---	---	16	30%	F-03
Surr: o-Terphenyl (Surr)			*Recovery: 81 %*	*Limits: 50-150 %*		*Dilution: 1x*						

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040011 - EPA 5035A									Soil			
Blank (6040011-BLK1)					Prepared: 04/01/16 09:21		Analyzed: 04/01/16 11:56					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2.50	5.00	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 93 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*92 %*	*50-150 %*			*"*					
LCS (6040011-BS2)					Prepared: 04/01/16 09:21		Analyzed: 04/01/16 11:32					
NWTPH-Gx (MS)												
Gasoline Range Organics	19.1	2.50	5.00	mg/kg wet	50	25.0	---	77	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 88 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*97 %*	*50-150 %*			*"*					

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040011 - EPA 5035A									Soil			
Blank (6040011-BLK1)					Prepared: 04/01/16 09:21 Analyzed: 04/01/16 11:56							
5035/8260B												
Benzene	ND	5.00	10.0	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Xylenes, total	ND	37.5	75.0	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 107 %*		*Limits: 70-130 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Surr)			*99 %*		*70-130 %*			*"*				
Toluene-d8 (Surr)			*98 %*		*70-130 %*			*50x*				
4-Bromofluorobenzene (Surr)			*100 %*		*70-130 %*			*1x*				
LCS (6040011-BS1)					Prepared: 04/01/16 09:21 Analyzed: 04/01/16 10:59							
5035/8260B												
Benzene	918	5.00	10.0	ug/kg wet	50	1000	---	92	65-135%	---	---	
Toluene	950	25.0	50.0	"	"	"	---	95	"	---	---	
Ethylbenzene	948	12.5	25.0	"	"	"	---	95	"	---	---	
Xylenes, total	2790	37.5	75.0	"	"	3000	---	93	"	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 106 %*		*Limits: 70-130 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Surr)			*97 %*		*70-130 %*			*"*				
Toluene-d8 (Surr)			*95 %*		*70-130 %*			*50x*				
4-Bromofluorobenzene (Surr)			*96 %*		*70-130 %*			*1x*				

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040011 - EPA 5035A							**Soil**					
Blank (6040011-BLK1)					Prepared: 04/01/16 09:21 Analyzed: 04/01/16 11:56							
5035/8260B												
Acetone	ND	500	1000	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	5.00	10.0	"	"	---	---	---	---	---	---	
Bromobenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	50.0	100	"	"	---	---	---	---	---	---	
Bromoform	ND	50.0	100	"	"	---	---	---	---	---	---	
Bromomethane	ND	500	500	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	250	500	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Chloroethane	ND	250	500	"	"	---	---	---	---	---	---	E-03
Chloroform	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Chloromethane	ND	125	250	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	125	250	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	50.0	100	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Dibromomethane	ND	25.0	50.0	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	50.0	100	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	12.5	25.0	"	"	---	---	---	---	---	---	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040011 - EPA 5035A							**Soil**					
Blank (6040011-BLK1)					Prepared: 04/01/16 09:21 Analyzed: 04/01/16 11:56							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	25.0	50.0	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	25.0	50.0	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	50.0	100	"	"	---	---	---	---	---	---	
2-Hexanone	ND	250	500	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	250	500	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Methylene chloride	ND	125	250	"	"	---	---	---	---	---	---	
Naphthalene	ND	50.0	100	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Styrene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Toluene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	125	250	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	125	250	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	50.0	100	"	"	---	---	---	---	---	---	E-03
1,2,3-Trichloropropane	ND	25.0	50.0	"	"	---	---	---	---	---	---	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040011 - EPA 5035A									Soil			
Blank (6040011-BLK1)					Prepared: 04/01/16 09:21		Analyzed: 04/01/16 11:56					
1,2,4-Trimethylbenzene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	12.5	25.0	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	25.0	50.0	"	"	---	---	---	---	---	---	
o-Xylene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 107 %*		*Limits: 70-130 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Surr)			*99 %*		*70-130 %*			*"*				
Toluene-d8 (Surr)			*98 %*		*70-130 %*			*50x*				
4-Bromofluorobenzene (Surr)			*100 %*		*70-130 %*			*1x*				
LCS (6040011-BS1)					Prepared: 04/01/16 09:21		Analyzed: 04/01/16 10:59					
5035/8260B												
Acetone	2170	500	1000	ug/kg wet	50	2000	---	109	65-135%	---	---	
Benzene	918	5.00	10.0	"	"	1000	---	92	"	---	---	
Bromobenzene	903	12.5	25.0	"	"	"	---	90	"	---	---	
Bromochloromethane	1040	25.0	50.0	"	"	"	---	104	"	---	---	
Bromodichloromethane	1010	50.0	100	"	"	"	---	101	"	---	---	
Bromoform	1340	50.0	100	"	"	"	---	134	"	---	---	Q-41
Bromomethane	1370	500	500	"	"	"	---	137	"	---	---	Q-41
2-Butanone (MEK)	2160	250	500	"	"	2000	---	108	"	---	---	
n-Butylbenzene	820	25.0	50.0	"	"	1000	---	82	"	---	---	
sec-Butylbenzene	877	25.0	50.0	"	"	"	---	88	"	---	---	
tert-Butylbenzene	798	25.0	50.0	"	"	"	---	80	"	---	---	
Carbon tetrachloride	1040	25.0	50.0	"	"	"	---	104	"	---	---	
Chlorobenzene	990	12.5	25.0	"	"	"	---	99	"	---	---	
Chloroethane	2030	250	500	"	"	"	---	203	"	---	---	E-03
Chloroform	960	25.0	50.0	"	"	"	---	96	"	---	---	
Chloromethane	1000	125	250	"	"	"	---	100	"	---	---	
2-Chlorotoluene	865	25.0	50.0	"	"	"	---	86	"	---	---	
4-Chlorotoluene	882	25.0	50.0	"	"	"	---	88	"	---	---	
1,2-Dibromo-3-chloropropane	1140	125	250	"	"	"	---	114	"	---	---	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040011 - EPA 5035A							**Soil**					
LCS (6040011-BS1)					Prepared: 04/01/16 09:21		Analyzed: 04/01/16 10:59					
Dibromochloromethane	1220	50.0	100	ug/kg wet	"	"	---	122	"	---	---	
1,2-Dibromoethane (EDB)	1000	25.0	50.0	"	"	"	---	100	"	---	---	
Dibromomethane	966	25.0	50.0	"	"	"	---	97	"	---	---	
1,2-Dichlorobenzene	994	12.5	25.0	"	"	"	---	99	"	---	---	
1,3-Dichlorobenzene	973	12.5	25.0	"	"	"	---	97	"	---	---	
1,4-Dichlorobenzene	965	12.5	25.0	"	"	"	---	96	"	---	---	
Dichlorodifluoromethane	952	50.0	100	"	"	"	---	95	"	---	---	
1,1-Dichloroethane	966	12.5	25.0	"	"	"	---	97	"	---	---	
1,2-Dichloroethane (EDC)	974	12.5	25.0	"	"	"	---	97	"	---	---	
1,1-Dichloroethene	985	12.5	25.0	"	"	"	---	98	"	---	---	
cis-1,2-Dichloroethene	890	12.5	25.0	"	"	"	---	89	"	---	---	
trans-1,2-Dichloroethene	954	12.5	25.0	"	"	"	---	95	"	---	---	
1,2-Dichloropropane	944	12.5	25.0	"	"	"	---	94	"	---	---	
1,3-Dichloropropane	938	25.0	50.0	"	"	"	---	94	"	---	---	
2,2-Dichloropropane	884	25.0	50.0	"	"	"	---	88	"	---	---	
1,1-Dichloropropene	884	25.0	50.0	"	"	"	---	88	"	---	---	
cis-1,3-Dichloropropene	839	25.0	50.0	"	"	"	---	84	"	---	---	
trans-1,3-Dichloropropene	962	25.0	50.0	"	"	"	---	96	"	---	---	
Ethylbenzene	948	12.5	25.0	"	"	"	---	95	"	---	---	
Hexachlorobutadiene	1180	50.0	100	"	"	"	---	118	"	---	---	
2-Hexanone	1840	250	500	"	"	2000	---	92	"	---	---	
Isopropylbenzene	892	25.0	50.0	"	"	1000	---	89	"	---	---	
4-Isopropyltoluene	898	25.0	50.0	"	"	"	---	90	"	---	---	
4-Methyl-2-pentanone (MiBK)	1980	250	500	"	"	2000	---	99	"	---	---	
Methyl tert-butyl ether (MTBE)	900	25.0	50.0	"	"	1000	---	90	"	---	---	
Methylene chloride	981	125	250	"	"	"	---	98	"	---	---	
Naphthalene	834	50.0	100	"	"	"	---	83	"	---	---	
n-Propylbenzene	818	12.5	25.0	"	"	"	---	82	"	---	---	
Styrene	962	25.0	50.0	"	"	"	---	96	"	---	---	
1,1,1,2-Tetrachloroethane	1150	12.5	25.0	"	"	"	---	115	"	---	---	

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040011 - EPA 5035A							**Soil**					
LCS (6040011-BS1)					Prepared: 04/01/16 09:21		Analyzed: 04/01/16 10:59					
1,1,2,2-Tetrachloroethane	1320	25.0	50.0	"	"	"	---	132	"	---	---	Q-41
Tetrachloroethene (PCE)	1020	12.5	25.0	"	"	"	---	102	"	---	---	
Toluene	950	25.0	50.0	"	"	"	---	95	"	---	---	
1,2,3-Trichlorobenzene	955	125	250	"	"	"	---	96	"	---	---	
1,2,4-Trichlorobenzene	894	125	250	"	"	"	---	89	"	---	---	
1,1,1-Trichloroethane	991	12.5	25.0	"	"	"	---	99	"	---	---	
1,1,2-Trichloroethane	1020	12.5	25.0	"	"	"	---	102	"	---	---	
Trichloroethene (TCE)	880	12.5	25.0	"	"	"	---	88	"	---	---	
Trichlorofluoromethane	1850	50.0	100	"	"	"	---	185	"	---	---	E-03
1,2,3-Trichloropropane	990	25.0	50.0	"	"	"	---	99	"	---	---	
1,2,4-Trimethylbenzene	892	25.0	50.0	"	"	"	---	89	"	---	---	
1,3,5-Trimethylbenzene	880	25.0	50.0	"	"	"	---	88	"	---	---	
Vinyl chloride	1230	12.5	25.0	"	"	"	---	123	"	---	---	Q-41
m,p-Xylene	1910	25.0	50.0	"	"	2000	---	95	"	---	---	
o-Xylene	878	12.5	25.0	"	"	1000	---	88	"	---	---	

Surr: Dibromofluoromethane (Surr)	*Recovery: 106 %*	*Limits: 70-130 %*	*Dilution: 1x*	
1,4-Difluorobenzene (Surr)	*97 %*	*70-130 %*	*"*	
Toluene-d8 (Surr)	*95 %*	*70-130 %*	*50x*	
4-Bromofluorobenzene (Surr)	*96 %*	*70-130 %*	*1x*	

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Anions by EPA 300.0/9056A (Ion Chromatography)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040311 - Method Prep: Non-Aq								**Soil**				
Blank (6040311-BLK1)					Prepared: 04/12/16 12:45		Analyzed: 04/13/16 00:06					
EPA 9056A												
Sulfate	ND	10.0	10.0	mg/kg wet	1	---	---	---	---	---	---	
LCS (6040311-BS1)					Prepared: 04/12/16 12:45		Analyzed: 04/13/16 00:28					
EPA 9056A												
Sulfate	78.6	10.0	10.0	mg/kg wet	1	80.0	---	98	90-110%	---	---	
Duplicate (6040311-DUP1)					Prepared: 04/12/16 12:45		Analyzed: 04/13/16 02:58					
QC Source Sample: 5237-160331-NDP-SED005 (A6D0013-08)												
EPA 9056A												
Sulfate	**23.3**	17.2	17.2	mg/kg dry	1	---	20.5	---	---	13	15%	
Matrix Spike (6040311-MS1)					Prepared: 04/12/16 12:45		Analyzed: 04/13/16 03:20					
QC Source Sample: 5237-160331-NDP-SED005 (A6D0013-08)												
EPA 9056A												
Sulfate	148	17.3	17.3	mg/kg dry	1	139	20.5	92	80-120%	---	---	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Cyanide - Total (Non-aqueous)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040256 - Method Prep: Non-Aq									**Sediment**			
Blank (6040256-BLK1)					Prepared: 04/11/16 09:44		Analyzed: 04/11/16 17:39					
EPA 9013M/9014												
Cyanide, Total	ND	0.100	0.100	mg/kg wet	1	---	---	---	---	---	---	
LCS (6040256-BS1)					Prepared: 04/11/16 09:44		Analyzed: 04/11/16 17:41					
EPA 9013M/9014												
Cyanide, Total	4.01	0.100	0.100	mg/kg wet	1	4.00	---	100	85-115%	---	---	
Duplicate (6040256-DUP2)					Prepared: 04/11/16 09:44		Analyzed: 04/11/16 18:33					
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12)												
EPA 9013M/9014												
Cyanide, Total	ND	0.142	0.142	mg/kg dry	1	---	ND	---	---	---	10%	
Matrix Spike (6040256-MS2)					Prepared: 04/11/16 09:44		Analyzed: 04/11/16 18:35					
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12)												
EPA 9013M/9014												
Cyanide, Total	5.88	0.140	0.140	mg/kg dry	1	5.58	ND	105	80-120%	---	---	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Blank (6040143-BLK1)					Prepared: 04/06/16 11:48 Analyzed: 04/06/16 16:05							
EPA 8270D												
Acenaphthene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Anthracene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.87	3.75	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.87	3.75	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.87	3.75	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Chrysene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Fluoranthene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Fluorene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Naphthalene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Phenanthrene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Pyrene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Carbazole	ND	1.87	3.75	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	1.25	2.50	"	"	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	12.5	25.0	"	"	---	---	---	---	---	---	
2-Chlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	31.2	62.5	"	"	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	31.2	62.5	"	"	---	---	---	---	---	---	
2-Methylphenol	ND	3.12	6.25	"	"	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	3.12	6.25	"	"	---	---	---	---	---	---	
2-Nitrophenol	ND	12.5	25.0	"	"	---	---	---	---	---	---	
4-Nitrophenol	ND	12.5	25.0	"	"	---	---	---	---	---	---	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Blank (6040143-BLK1)					Prepared: 04/06/16 11:48 Analyzed: 04/06/16 16:05							
Pentachlorophenol (PCP)	ND	12.5	25.0	ug/kg wet	"	---	---	---	---	---	---	
Phenol	ND	2.50	5.00	"	"	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	18.7	37.5	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	12.5	25.0	"	"	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	3.12	6.25	"	"	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	3.12	6.25	"	"	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Bis(2-Chloroisopropyl) ether	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Hexachloroethane	ND	3.12	6.25	"	"	---	---	---	---	---	---	
2-Chloronaphthalene	ND	1.25	2.50	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	3.12	6.25	"	"	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	3.12	6.25	"	"	---	---	---	---	---	---	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Blank (6040143-BLK1)					Prepared: 04/06/16 11:48 Analyzed: 04/06/16 16:05							
4-Chlorophenyl phenyl ether	ND	3.12	6.25	ug/kg wet	"	---	---	---	---	---	---	
Aniline	ND	6.25	12.5	"	"	---	---	---	---	---	---	
4-Chloroaniline	ND	3.12	6.25	"	"	---	---	---	---	---	---	
2-Nitroaniline	ND	25.0	50.0	"	"	---	---	---	---	---	---	
3-Nitroaniline	ND	25.0	50.0	"	"	---	---	---	---	---	---	
4-Nitroaniline	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Nitrobenzene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Benzoic acid	ND	157	312	"	"	---	---	---	---	---	---	
Benzyl alcohol	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Isophorone	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Azobenzene (1,2-DPH)	ND	3.12	6.25	"	"	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	31.2	62.5	"	"	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	12.5	25.0	"	"	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	31.2	62.5	"	"	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	31.2	62.5	"	"	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	31.2	62.5	"	"	---	---	---	---	---	---	
Pyridine	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 90 %*		*Limits: 37-122 %*				*Dilution: 1x*			
2-Fluorobiphenyl (Surr)			*95 %*		*44-115 %*				*"*			
Phenol-d6 (Surr)			*89 %*		*33-122 %*				*"*			
p-Terphenyl-d14 (Surr)			*96 %*		*54-127 %*				*"*			
2-Fluorophenol (Surr)			*85 %*		*35-115 %*				*"*			
2,4,6-Tribromophenol (Surr)			*104 %*		*39-132 %*				*"*			
LCS (6040143-BS1)					Prepared: 04/06/16 11:48 Analyzed: 04/06/16 16:43							
EPA 8270D												
Acenaphthene	483	1.33	2.67	ug/kg wet	1	533	---	90	40-122%	---	---	
Acenaphthylene	463	1.33	2.67	"	"	"	---	87	32-132%	---	---	
Anthracene	488	1.33	2.67	"	"	"	---	91	47-123%	---	---	
Benz(a)anthracene	511	1.33	2.67	"	"	"	---	96	49-126%	---	---	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
LCS (6040143-BS1)					Prepared: 04/06/16 11:48 Analyzed: 04/06/16 16:43							
Benzo(a)pyrene	504	2.00	4.00	ug/kg wet	"	"	---	95	45-129%	---	---	
Benzo(b)fluoranthene	556	2.00	4.00	"	"	"	---	104	45-132%	---	---	
Benzo(k)fluoranthene	511	2.00	4.00	"	"	"	---	96	47-132%	---	---	
Benzo(g,h,i)perylene	519	1.33	2.67	"	"	"	---	97	43-134%	---	---	
Chrysene	534	1.33	2.67	"	"	"	---	100	50-124%	---	---	
Dibenz(a,h)anthracene	518	1.33	2.67	"	"	"	---	97	45-134%	---	---	
Fluoranthene	522	1.33	2.67	"	"	"	---	98	50-127%	---	---	
Fluorene	497	1.33	2.67	"	"	"	---	93	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	486	1.33	2.67	"	"	"	---	91	45-133%	---	---	
1-Methylnaphthalene	479	2.67	5.33	"	"	"	---	90	40-120%	---	---	
2-Methylnaphthalene	481	2.67	5.33	"	"	"	---	90	38-122%	---	---	
Naphthalene	470	2.67	5.33	"	"	"	---	88	35-123%	---	---	
Phenanthrene	469	1.33	2.67	"	"	"	---	88	50-121%	---	---	
Pyrene	507	1.33	2.67	"	"	"	---	95	47-127%	---	---	
Carbazole	491	2.00	4.00	"	"	"	---	92	50-122%	---	---	
Dibenzofuran	487	1.33	2.67	"	"	"	---	91	44-120%	---	---	
4-Chloro-3-methylphenol	548	13.3	26.7	"	"	"	---	103	45-122%	---	---	
2-Chlorophenol	538	6.67	13.3	"	"	"	---	101	34-121%	---	---	
2,4-Dichlorophenol	565	6.67	13.3	"	"	"	---	106	40-122%	---	---	
2,4-Dimethylphenol	548	6.67	13.3	"	"	"	---	103	30-127%	---	---	
2,4-Dinitrophenol	477	33.3	66.7	"	"	"	---	89	5-137%	---	---	
4,6-Dinitro-2-methylphenol	500	33.3	66.7	"	"	"	---	94	29-132%	---	---	
2-Methylphenol	545	3.33	6.67	"	"	"	---	102	32-122%	---	---	
3+4-Methylphenol(s)	551	3.33	6.67	"	"	"	---	103	34-120%	---	---	
2-Nitrophenol	543	13.3	26.7	"	"	"	---	102	36-123%	---	---	
4-Nitrophenol	538	13.3	26.7	"	"	"	---	101	30-132%	---	---	
Pentachlorophenol (PCP)	580	13.3	26.7	"	"	"	---	109	25-133%	---	---	
Phenol	515	2.67	5.33	"	"	"	---	97	34-120%	---	---	
2,3,4,6-Tetrachlorophenol	562	6.67	13.3	"	"	"	---	105	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	566	6.67	13.3	"	"	"	---	106	40-120%	---	---	
2,4,5-Trichlorophenol	555	6.67	13.3	"	"	"	---	104	41-124%	---	---	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
LCS (6040143-BS1)					Prepared: 04/06/16 11:48 Analyzed: 04/06/16 16:43							
2,4,6-Trichlorophenol	537	6.67	13.3	ug/kg wet	"	"	---	101	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	542	20.0	40.0	"	"	"	---	102	51-133%	---	---	
Butyl benzyl phthalate	548	13.3	26.7	"	"	"	---	103	48-132%	---	---	
Diethylphthalate	504	13.3	26.7	"	"	"	---	94	50-124%	---	---	
Dimethylphthalate	506	13.3	26.7	"	"	"	---	95	48-124%	---	---	
Di-n-butylphthalate	520	13.3	26.7	"	"	"	---	98	51-128%	---	---	
Di-n-octyl phthalate	506	13.3	26.7	"	"	"	---	95	44-140%	---	---	
N-Nitrosodimethylamine	456	3.33	6.67	"	"	"	---	86	23-120%	---	---	
N-Nitroso-di-n-propylamine	484	3.33	6.67	"	"	"	---	91	36-120%	---	---	
N-Nitrosodiphenylamine	508	3.33	6.67	"	"	"	---	95	38-127%	---	---	
Bis(2-Chloroethoxy) methane	472	3.33	6.67	"	"	"	---	89	36-121%	---	---	
Bis(2-Chloroethyl) ether	451	3.33	6.67	"	"	"	---	85	31-120%	---	---	
Bis(2-Chloroisopropyl) ether	420	3.33	6.67	"	"	"	---	79	33-131%	---	---	
Hexachlorobenzene	491	1.33	2.67	"	"	"	---	92	44-122%	---	---	
Hexachlorobutadiene	503	3.33	6.67	"	"	"	---	94	32-123%	---	---	
Hexachlorocyclopentadiene	344	6.67	13.3	"	"	"	---	64	5-140%	---	---	Q-31
Hexachloroethane	456	3.33	6.67	"	"	"	---	85	28-120%	---	---	
2-Chloronaphthalene	474	1.33	2.67	"	"	"	---	89	41-120%	---	---	
1,2-Dichlorobenzene	469	3.33	6.67	"	"	"	---	88	33-120%	---	---	
1,3-Dichlorobenzene	473	3.33	6.67	"	"	"	---	89	30-120%	---	---	
1,4-Dichlorobenzene	473	3.33	6.67	"	"	"	---	89	31-120%	---	---	
1,2,4-Trichlorobenzene	484	3.33	6.67	"	"	"	---	91	34-120%	---	---	
4-Bromophenyl phenyl ether	530	3.33	6.67	"	"	"	---	99	46-124%	---	---	
4-Chlorophenyl phenyl ether	516	3.33	6.67	"	"	"	---	97	45-121%	---	---	
Aniline	517	6.67	13.3	"	"	"	---	97	7-120%	---	---	
4-Chloroaniline	348	3.33	6.67	"	"	"	---	65	16-120%	---	---	
2-Nitroaniline	528	26.7	53.3	"	"	"	---	99	44-127%	---	---	
3-Nitroaniline	412	26.7	53.3	"	"	"	---	77	33-120%	---	---	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
LCS (6040143-BS1)					Prepared: 04/06/16 11:48 Analyzed: 04/06/16 16:43							
4-Nitroaniline	510	26.7	53.3	ug/kg wet	"	"	---	96	35-120%	---	---	
Nitrobenzene	479	13.3	26.7	"	"	"	---	90	34-122%	---	---	
2,4-Dinitrotoluene	545	13.3	26.7	"	"	"	---	102	48-126%	---	---	
2,6-Dinitrotoluene	526	13.3	26.7	"	"	"	---	99	46-124%	---	---	
Benzoic acid	532	167	333	"	"	1070	---	50	5-140%	---	---	
Benzyl alcohol	566	6.67	13.3	"	"	533	---	106	29-122%	---	---	
Isophorone	493	3.33	6.67	"	"	"	---	92	30-122%	---	---	
Azobenzene (1,2-DPH)	443	3.33	6.67	"	"	"	---	83	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	533	33.3	66.7	"	"	"	---	100	60-121%	---	---	
3,3'-Dichlorobenzidine	1680	13.3	26.7	"	"	1070	---	157	22-121%	---	---	Q-29
1,2-Dinitrobenzene	532	33.3	66.7	"	"	533	---	100	44-120%	---	---	
1,3-Dinitrobenzene	542	33.3	66.7	"	"	"	---	102	42-127%	---	---	
1,4-Dinitrobenzene	546	33.3	66.7	"	"	"	---	102	37-132%	---	---	
Pyridine	454	6.67	13.3	"	"	"	---	85	5-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 92 %*	*Limits: 37-122 %*			*Dilution: 1x*					
2-Fluorobiphenyl (Surr)			*95 %*	*44-115 %*			*"*					
Phenol-d6 (Surr)			*103 %*	*33-122 %*			*"*					
p-Terphenyl-d14 (Surr)			*110 %*	*54-127 %*			*"*					
2-Fluorophenol (Surr)			*97 %*	*35-115 %*			*"*					
2,4,6-Tribromophenol (Surr)			*106 %*	*39-132 %*			*"*					
Duplicate (6040143-DUP2)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 12:29							
QC Source Sample: 5237-160331-NDP-SED003 (A6D0013-02RE1)												
EPA 8270D												
Acenaphthene	ND	7.11	14.3	ug/kg dry	4	---	10.9	---	---	***	30%	
Acenaphthylene	**16.9**	7.11	14.3	"	"	---	16.7	---	---	1	30%	
Anthracene	ND	7.11	14.3	"	"	---	19.6	---	---	***	30%	
Benz(a)anthracene	**35.9**	7.11	14.3	"	"	---	145	---	---	121	30%	Q-17
Benzo(a)pyrene	**68.3**	10.7	21.4	"	"	---	231	---	---	109	30%	Q-17
Benzo(b)fluoranthene	**72.4**	10.7	21.4	"	"	---	286	---	---	119	30%	M-02, Q-17
Benzo(k)fluoranthene	**24.9**	10.7	21.4	"	"	---	98.2	---	---	119	30%	M-02, Q-05
Benzo(g,h,i)perylene	**70.8**	7.11	14.3	"	"	---	204	---	---	97	30%	Q-17

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Duplicate (6040143-DUP2)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 12:29							
QC Source Sample: 5237-160331-NDP-SED003 (A6D0013-02RE1)												
Chrysene	**45.5**	7.11	14.3	ug/kg dry	"	---	171	---	---	116	30%	Q-17
Dibenz(a,h)anthracene	**9.22**	7.11	14.3	"	"	---	32.4	---	---	111	30%	Q-05, J
Fluoranthene	**65.4**	7.11	14.3	"	"	---	272	---	---	122	30%	Q-17
Fluorene	ND	7.11	14.3	"	"	---	9.33	---	---	***	30%	
Indeno(1,2,3-cd)pyrene	**55.5**	7.11	14.3	"	"	---	184	---	---	107	30%	Q-17
1-Methylnaphthalene	ND	14.3	28.5	"	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	14.3	28.5	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	14.3	28.5	"	"	---	ND	---	---	---	30%	
Phenanthrene	**24.6**	7.11	14.3	"	"	---	96.9	---	---	119	30%	Q-17
Pyrene	**105**	7.11	14.3	"	"	---	291	---	---	94	30%	Q-17
Carbazole	ND	10.7	21.4	"	"	---	23.5	---	---	***	30%	
Dibenzofuran	ND	7.11	14.3	"	"	---	ND	---	---	---	30%	
4-Chloro-3-methylphenol	ND	71.1	143	"	"	---	ND	---	---	---	30%	
2-Chlorophenol	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	178	357	"	"	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	178	357	"	"	---	ND	---	---	---	30%	
2-Methylphenol	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
2-Nitrophenol	ND	71.1	143	"	"	---	ND	---	---	---	30%	
4-Nitrophenol	ND	71.1	143	"	"	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	**623**	71.1	143	"	"	---	98.8	---	---	145	30%	Q-17
Phenol	ND	14.3	28.5	"	"	---	ND	---	---	---	30%	
2,3,4,6-Tetrachlorophenol	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	107	214	"	"	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	71.1	143	"	"	---	ND	---	---	---	30%	

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Duplicate (6040143-DUP2)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 12:29							
QC Source Sample: 5237-160331-NDP-SED003 (A6D0013-02RE1)												
Diethylphthalate	ND	71.1	143	ug/kg dry	"	---	ND	---	---	---	30%	
Dimethylphthalate	ND	71.1	143	"	"	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	71.1	143	"	"	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	71.1	143	"	"	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroisopropyl) ether	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	7.11	14.3	"	"	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
Hexachloroethane	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	7.11	14.3	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
Aniline	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
4-Chloroaniline	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
2-Nitroaniline	ND	143	285	"	"	---	ND	---	---	---	30%	
3-Nitroaniline	ND	143	285	"	"	---	ND	---	---	---	30%	
4-Nitroaniline	ND	143	285	"	"	---	ND	---	---	---	30%	
Nitrobenzene	ND	71.1	143	"	"	---	ND	---	---	---	30%	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546											**Sediment**	
Duplicate (6040143-DUP2)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 12:29							
QC Source Sample: 5237-160331-NDP-SED003 (A6D0013-02RE1)												
2,4-Dinitrotoluene	ND	71.1	143	ug/kg dry	"	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	71.1	143	"	"	---	ND	---	---	---	30%	
Benzoic acid	ND	893	1780	"	"	---	ND	---	---	---	30%	
Benzyl alcohol	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
Isophorone	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	17.8	35.7	"	"	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	178	357	"	"	---	ND	---	---	---	30%	
3,3'-Dichlorobenzidine	ND	71.1	143	"	"	---	ND	---	---	---	30%	
1,2-Dinitrobenzene	ND	178	357	"	"	---	ND	---	---	---	30%	
1,3-Dinitrobenzene	ND	178	357	"	"	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	178	357	"	"	---	ND	---	---	---	30%	
Pyridine	ND	35.7	71.1	"	"	---	ND	---	---	---	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 88 %*	*Limits: 37-122 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*80 %*	*44-115 %*			*"*					
Phenol-d6 (Surr)			*86 %*	*33-122 %*			*"*					
p-Terphenyl-d14 (Surr)			*84 %*	*54-127 %*			*"*					
2-Fluorophenol (Surr)			*80 %*	*35-115 %*			*"*					
2,4,6-Tribromophenol (Surr)			*94 %*	*39-132 %*			*"*					
Matrix Spike (6040143-MS1)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 16:16							
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12RE1)												
EPA 8270D												
Acenaphthene	870	18.8	37.8	ug/kg dry	10	756	631	32	40-122%	---	---	Q-03
Acenaphthylene	730	18.8	37.8	"	"	"	49.7	90	32-132%	---	---	
Anthracene	1040	18.8	37.8	"	"	"	713	43	47-123%	---	---	Q-03
Benz(a)anthracene	2640	18.8	37.8	"	"	"	3930	-171	49-126%	---	---	Q-03
Benzo(a)pyrene	3500	28.3	56.7	"	"	"	5390	-250	45-129%	---	---	Q-03
Benzo(b)fluoranthene	4320	28.3	56.7	"	"	"	6790	-328	45-132%	---	---	Q-03
Benzo(k)fluoranthene	2110	28.3	56.7	"	"	"	2640	-70	47-132%	---	---	Q-03
Benzo(g,h,i)perylene	2820	18.8	37.8	"	"	"	3620	-106	43-134%	---	---	Q-03
Chrysene	2940	18.8	37.8	"	"	"	4420	-196	50-124%	---	---	Q-03

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Matrix Spike (6040143-MS1)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 16:16							
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12RE1)												
Dibenz(a,h)anthracene	1100	18.8	37.8	ug/kg dry	"	"	856	33	45-134%	---	---	Q-03
Fluoranthene	3720	18.8	37.8	"	"	"	5610	-250	50-127%	---	---	Q-03
Fluorene	835	18.8	37.8	"	"	"	333	66	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	2780	18.8	37.8	"	"	"	3640	-114	45-133%	---	---	Q-03
1-Methylnaphthalene	729	37.8	75.5	"	"	"	ND	97	40-120%	---	---	
2-Methylnaphthalene	743	37.8	75.5	"	"	"	55.2	91	38-122%	---	---	
Naphthalene	735	37.8	75.5	"	"	"	120	81	35-123%	---	---	
Phenanthrene	2060	18.8	37.8	"	"	"	2940	-116	50-121%	---	---	Q-03
Pyrene	3560	18.8	37.8	"	"	"	5350	-237	47-127%	---	---	Q-03
Carbazole	1050	28.3	56.7	"	"	"	716	45	50-122%	---	---	Q-03
Dibenzofuran	761	18.8	37.8	"	"	"	164	79	44-120%	---	---	
4-Chloro-3-methylphenol	770	188	378	"	"	"	ND	102	45-122%	---	---	
2-Chlorophenol	784	94.5	188	"	"	"	ND	104	34-121%	---	---	
2,4-Dichlorophenol	758	94.5	188	"	"	"	ND	100	40-122%	---	---	
2,4-Dimethylphenol	791	94.5	188	"	"	"	ND	105	30-127%	---	---	
2,4-Dinitrophenol	722	472	472	"	"	"	ND	96	5-137%	---	---	
4,6-Dinitro-2-methylphenol	764	472	472	"	"	"	ND	101	29-132%	---	---	
2-Methylphenol	833	47.2	94.5	"	"	"	ND	110	32-122%	---	---	
3+4-Methylphenol(s)	868	47.2	94.5	"	"	"	ND	115	34-120%	---	---	
2-Nitrophenol	690	188	378	"	"	"	ND	91	36-123%	---	---	
4-Nitrophenol	780	188	378	"	"	"	ND	103	30-132%	---	---	
Pentachlorophenol (PCP)	815	188	378	"	"	"	ND	108	25-133%	---	---	
Phenol	749	37.8	75.5	"	"	"	ND	99	34-120%	---	---	
2,3,4,6-Tetrachlorophenol	829	94.5	188	"	"	"	ND	110	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	829	94.5	188	"	"	"	ND	110	40-120%	---	---	
2,4,5-Trichlorophenol	742	94.5	188	"	"	"	ND	98	41-124%	---	---	
2,4,6-Trichlorophenol	774	94.5	188	"	"	"	ND	102	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	976	283	567	"	"	"	ND	129	51-133%	---	---	
Butyl benzyl phthalate	743	188	378	"	"	"	ND	98	48-132%	---	---	
Diethylphthalate	783	188	378	"	"	"	ND	104	50-124%	---	---	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
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503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Matrix Spike (6040143-MS1)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 16:16							
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12RE1)												
Dimethylphthalate	723	188	378	ug/kg dry	"	"	ND	96	48-124%	---	---	
Di-n-butylphthalate	817	188	378	"	"	"	ND	108	51-128%	---	---	
Di-n-octyl phthalate	885	188	378	"	"	"	ND	117	44-140%	---	---	
N-Nitrosodimethylamine	543	47.2	94.5	"	"	"	ND	72	23-120%	---	---	
N-Nitroso-di-n-propylamine	774	47.2	94.5	"	"	"	ND	102	36-120%	---	---	
N-Nitrosodiphenylamine	776	47.2	94.5	"	"	"	ND	103	38-127%	---	---	
Bis(2-Chloroethoxy) methane	668	47.2	94.5	"	"	"	ND	88	36-121%	---	---	
Bis(2-Chloroethyl) ether	630	47.2	94.5	"	"	"	ND	83	31-120%	---	---	
Bis(2-Chloroisopropyl) ether	676	47.2	94.5	"	"	"	ND	90	33-131%	---	---	
Hexachlorobenzene	693	18.8	37.8	"	"	"	ND	92	44-122%	---	---	
Hexachlorobutadiene	621	47.2	94.5	"	"	"	ND	82	32-123%	---	---	
Hexachlorocyclopentadiene	270	94.5	188	"	"	"	ND	36	5-140%	---	---	
Hexachloroethane	550	47.2	94.5	"	"	"	ND	73	28-120%	---	---	
2-Chloronaphthalene	683	18.8	37.8	"	"	"	ND	90	41-120%	---	---	
1,2-Dichlorobenzene	654	47.2	94.5	"	"	"	ND	87	33-120%	---	---	
1,3-Dichlorobenzene	604	47.2	94.5	"	"	"	ND	80	30-120%	---	---	
1,4-Dichlorobenzene	620	47.2	94.5	"	"	"	ND	82	31-120%	---	---	
1,2,4-Trichlorobenzene	623	47.2	94.5	"	"	"	ND	82	34-120%	---	---	
4-Bromophenyl phenyl ether	685	47.2	94.5	"	"	"	ND	91	46-124%	---	---	
4-Chlorophenyl phenyl ether	660	47.2	94.5	"	"	"	ND	87	45-121%	---	---	
Aniline	547	94.5	188	"	"	"	ND	72	7-120%	---	---	
4-Chloroaniline	497	47.2	94.5	"	"	"	ND	66	16-120%	---	---	
2-Nitroaniline	672	378	378	"	"	"	ND	89	44-127%	---	---	
3-Nitroaniline	522	378	378	"	"	"	ND	69	33-120%	---	---	
4-Nitroaniline	610	378	378	"	"	"	ND	81	35-120%	---	---	
Nitrobenzene	730	188	378	"	"	"	ND	97	34-122%	---	---	
2,4-Dinitrotoluene	680	188	378	"	"	"	ND	90	48-126%	---	---	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Matrix Spike (6040143-MS1)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 16:16							
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12RE1)												
2,6-Dinitrotoluene	722	188	378	ug/kg dry	"	"	ND	96	46-124%	---	---	
Benzoic acid	2450	2370	2370	"	"	1510	ND	162	5-140%	---	---	Q-01
Benzyl alcohol	758	94.5	188	"	"	756	ND	100	29-122%	---	---	
Isophorone	734	47.2	94.5	"	"	"	ND	97	30-122%	---	---	
Azobenzene (1,2-DPH)	766	47.2	94.5	"	"	"	ND	101	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	829	472	472	"	"	"	ND	110	60-121%	---	---	
3,3'-Dichlorobenzidine	1630	188	378	"	"	1510	ND	108	22-121%	---	---	Q-41
1,2-Dinitrobenzene	673	472	472	"	"	756	ND	89	44-120%	---	---	
1,3-Dinitrobenzene	681	472	472	"	"	"	ND	90	42-127%	---	---	
1,4-Dinitrobenzene	644	472	472	"	"	"	ND	85	37-132%	---	---	
Pyridine	578	94.5	188	"	"	"	ND	77	5-120%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 92 %*	*Limits: 37-122 %*	*Dilution: 10x*
2-Fluorobiphenyl (Surr)	*86 %*	*44-115 %*	*"*
Phenol-d6 (Surr)	*99 %*	*33-122 %*	*"*
p-Terphenyl-d14 (Surr)	*94 %*	*54-127 %*	*"*
2-Fluorophenol (Surr)	*89 %*	*35-115 %*	*"*
2,4,6-Tribromophenol (Surr)	*103 %*	*39-132 %*	*"*

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Philip Nerenberg

Philip Nerenberg, Lab Director

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AMENDED REPORT

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Tigard, OR 97223
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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Blank (6040143-BLK1)					Prepared: 04/06/16 11:48 Analyzed: 04/06/16 16:05							
GC/MS Scan												
C1-Chrysenes/Benz(a)anthracenes	ND	12.5	12.5	ug/kg wet	1	---	---	---	---	---	---	
C1-Fluoranthrenes/Pyrenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C1-Fluorenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C1-Phenanthrenes/Anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C2-Chrysenes/Benz(a)anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C2-Fluorenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C2-Naphthalenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C2-Phenanthrenes/Anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C3-Chrysenes/Benz(a)anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C3-Fluorenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C3-Naphthalenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C3-Phenanthrenes/Anthracenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C4-Chrysenes/Benz(a)anthracenes	ND	25.0	25.0	"	"	---	---	---	---	---	---	
C4-Naphthalenes	ND	12.5	12.5	"	"	---	---	---	---	---	---	
C4-Phenanthrenes/Anthracenes	ND	25.0	25.0	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	12.5	12.5	"	"	---	---	---	---	---	---	
2,6-Dimethylnaphthalene	ND	12.5	12.5	"	"	---	---	---	---	---	---	
1,6,7-Trimethylnaphthalene	ND	12.5	12.5	"	"	---	---	---	---	---	---	
Fluorene	ND	12.5	12.5	"	"	---	---	---	---	---	---	
1-Methylphenanthrene	ND	12.5	12.5	"	"	---	---	---	---	---	---	
Pyrene	ND	12.5	12.5	"	"	---	---	---	---	---	---	
Chrysene	ND	12.5	12.5	"	"	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)			*Recovery: 97 %*	*Limits: 40-120 %*			*Dilution: 1x*					
Benzo(a)pyrene-d12 (Surr)			*102 %*	*40-120 %*			*"*					
LCS (6040143-BS2)					Prepared: 04/06/16 11:49 Analyzed: 04/06/16 17:21							

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546											**Sediment**	
LCS (6040143-BS2)					Prepared: 04/06/16 11:49 Analyzed: 04/06/16 17:21							
GC/MS Scan												
2-Methylnaphthalene	523	13.3	13.3	ug/kg wet	1	533	---	98	38-122%	---	---	
2,6-Dimethylnaphthalene	479	13.3	13.3	"	"	"	---	90	40-125%	---	---	
1,6,7-Trimethylnaphthalene	531	13.3	13.3	"	"	"	---	100	45-125%	---	---	
Fluorene	518	13.3	13.3	"	"	"	---	97	43-125%	---	---	
1-Methylphenanthrene	539	13.3	13.3	"	"	"	---	101	45-125%	---	---	
Pyrene	547	13.3	13.3	"	"	"	---	103	47-127%	---	---	
Chrysene	558	13.3	13.3	"	"	"	---	105	50-124%	---	---	
Surr: Acenaphthylene-d8 (Surr)			*Recovery: 104 %*	*Limits: 40-120 %*			*Dilution: 1x*					
Benzo(a)pyrene-d12 (Surr)			*100 %*	*40-120 %*			*"*					
Duplicate (6040143-DUP2)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 12:29							
QC Source Sample: 5237-160331-NDP-SED003 (A6D0013-02RE1)												
GC/MS Scan												
C1-Chrysenes/Benz(a)anthracenes	ND	71.3	71.3	ug/kg dry	4	---	75.0	---	---	***	30%	
C1-Fluoranthrenes/Pyrenes	**79.2**	71.3	71.3	"	"	---	103	---	---	26	30%	
C1-Fluorenes	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
C1-Phenanthrenes/Anthracenes	**175**	71.3	71.3	"	"	---	ND	---	---		30%	
C2-Chrysenes/Benz(a)anthracenes	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
C2-Fluorenes	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
C2-Naphthalenes	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
C2-Phenanthrenes/Anthracenes	**364**	71.3	71.3	"	"	---	77.5	---	---	130	30%	Q-17
C3-Chrysenes/Benz(a)anthracenes	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
C3-Fluorenes	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
C3-Naphthalenes	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
C3-Phenanthrenes/Anthracenes	**292**	71.3	71.3	"	"	---	ND	---	---		30%	
C4-Chrysenes/Benz(a)anthracenes	ND	143	143	"	"	---	ND	---	---	---	30%	
C4-Naphthalenes	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	

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Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040143 - EPA 3546							**Sediment**					
Duplicate (6040143-DUP2)					Prepared: 04/06/16 11:48 Analyzed: 04/07/16 12:29							
QC Source Sample: 5237-160331-NDP-SED003 (A6D0013-02RE1)												
C4-Phenanthrenes/Anthracenes	ND	143	143	ug/kg dry	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
2,6-Dimethylnaphthalene	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
1,6,7-Trimethylnaphthalene	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
Fluorene	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
1-Methylphenanthrene	ND	71.3	71.3	"	"	---	ND	---	---	---	30%	
Pyrene	**102**	71.3	71.3	"	"	---	289	---	---	96	30%	Q-17
Chrysene	ND	71.3	71.3	"	"	---	174	---	---	***	30%	
Surr: Acenaphthylene-d8 (Surr)			*Recovery: 87 %*	*Limits: 40-120 %*			*Dilution: 4x*					
Benzo(a)pyrene-d12 (Surr)			*91 %*	*40-120 %*			*"*					
Matrix Spike (6040143-MS2)					Prepared: 04/06/16 11:49 Analyzed: 04/07/16 16:52							
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12RE1)												
GC/MS Scan												
2-Methylnaphthalene	817	189	189	ug/kg dry	10	754	ND	108	38-122%	---	---	
2,6-Dimethylnaphthalene	722	189	189	"	"	"	ND	96	40-125%	---	---	
1,6,7-Trimethylnaphthalene	713	189	189	"	"	"	ND	95	45-125%	---	---	
Fluorene	866	189	189	"	"	"	321	72	43-125%	---	---	
1-Methylphenanthrene	912	189	189	"	"	"	ND	121	45-125%	---	---	
Pyrene	3610	189	189	"	"	"	5880	-301	47-127%	---	---	Q-03
Chrysene	2670	189	189	"	"	"	4490	-242	50-124%	---	---	Q-03
Surr: Acenaphthylene-d8 (Surr)			*Recovery: 92 %*	*Limits: 40-120 %*			*Dilution: 10x*					
Benzo(a)pyrene-d12 (Surr)			*85 %*	*40-120 %*			*"*					

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AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040194 - EPA 3051A							**Sediment**					
Blank (6040194-BLK1)					Prepared: 04/07/16 14:45 Analyzed: 04/11/16 11:46							
EPA 6020A												
Aluminum	ND	12.5	25.0	mg/kg wet	5	---	---	---	---	---	---	
Antimony	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Barium	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Beryllium	ND	0.0500	0.100	"	"	---	---	---	---	---	---	
Cadmium	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Calcium	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Copper	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Iron	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Lead	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Magnesium	ND	12.5	25.0	"	"	---	---	---	---	---	---	
Manganese	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Potassium	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Silver	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Sodium	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Thallium	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Vanadium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Blank (6040194-BLK2)					Prepared: 04/07/16 14:45 Analyzed: 04/11/16 22:50							
EPA 6020A												
Arsenic	ND	0.250	1.00	mg/kg wet	5	---	---	---	---	---	---	Q-16
Mercury	ND	0.0200	0.0400	"	"	---	---	---	---	---	---	Q-16
Selenium	ND	0.500	1.00	"	"	---	---	---	---	---	---	Q-16
LCS (6040194-BS1)					Prepared: 04/07/16 14:45 Analyzed: 04/11/16 11:49							
EPA 6020A												
Aluminum	2540	12.5	25.0	mg/kg wet	5	2500	---	102	80-120%	---	---	
Antimony	13.1	0.250	0.500	"	"	12.5	---	105	"	---	---	
Arsenic	25.2	0.500	2.00	"	"	25.0	---	101	"	---	---	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040194 - EPA 3051A							**Sediment**					
LCS (6040194-BS1)					Prepared: 04/07/16 14:45 Analyzed: 04/11/16 11:49							
Barium	25.9	0.250	0.500	mg/kg wet	"	"	---	104	"	---	---	
Beryllium	12.1	0.0500	0.100	"	"	12.5	---	97	"	---	---	
Cadmium	25.0	0.250	0.500	"	"	25.0	---	100	"	---	---	
Calcium	2570	25.0	50.0	"	"	2500	---	103	"	---	---	
Chromium	26.0	1.00	2.00	"	"	25.0	---	104	"	---	---	
Copper	25.4	0.500	1.00	"	"	"	---	101	"	---	---	
Iron	2590	25.0	50.0	"	"	2500	---	104	"	---	---	
Lead	24.1	0.250	0.500	"	"	25.0	---	96	"	---	---	
Magnesium	2520	12.5	25.0	"	"	2500	---	101	"	---	---	
Manganese	26.2	0.250	0.500	"	"	25.0	---	105	"	---	---	
Mercury	0.494	0.0400	0.0800	"	"	0.500	---	99	"	---	---	
Nickel	25.6	0.500	1.00	"	"	25.0	---	102	"	---	---	
Potassium	2570	25.0	50.0	"	"	2500	---	103	"	---	---	
Selenium	13.9	1.00	2.00	"	"	12.5	---	112	"	---	---	
Silver	12.8	0.250	0.500	"	"	"	---	103	"	---	---	
Sodium	2480	25.0	50.0	"	"	2500	---	99	"	---	---	
Thallium	12.2	0.250	0.500	"	"	12.5	---	98	"	---	---	
Vanadium	26.8	0.500	1.00	"	"	25.0	---	107	"	---	---	
Zinc	25.1	1.00	2.00	"	"	"	---	100	"	---	---	

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AMENDED REPORT

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040241 - PSEP TOC												**Sediment**
Blank (6040241-BLK1)					Prepared: 04/08/16 17:20		Analyzed: 04/14/16 14:55					
SM 5310B MOD												
Total Organic Carbon	ND	100	200	mg/kg	1	---	---	---	---	---	---	
LCS (6040241-BS1)					Prepared: 04/08/16 17:20		Analyzed: 04/14/16 14:55					
SM 5310B MOD												
Total Organic Carbon	9300			mg/kg	1	10000	---	93	85-115%	---	---	
Duplicate (6040241-DUP1)					Prepared: 04/08/16 17:20		Analyzed: 04/14/16 14:55					
QC Source Sample: 5237-160331-NDP-SED005 (A6D0013-08)												
SM 5310B MOD												
Total Organic Carbon	**18000**	100	200	mg/kg	1	---	21000	---	---	12	20%	

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

QUALITY CONTROL (QC) SAMPLE RESULTS

Ammonia by UV Digestion/Gas Diffusion/Colorimetric Detection

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6040054 - Method Prep: Non-Aq								**Soil**				
Blank (6040054-BLK1)					Prepared: 04/04/16 10:09		Analyzed: 04/06/16 19:15					
SM4500-NH3 Mod												
Ammonia as N	ND	0.100	0.200	mg/kg wet	1	---	---	---	---	---	---	
LCS (6040054-BS1)					Prepared: 04/04/16 10:09		Analyzed: 04/06/16 19:15					
SM4500-NH3 Mod												
Ammonia as N	2.02	0.100	0.200	mg/kg wet	1	2.00	---	101	90-110%	---	---	
Duplicate (6040054-DUP2)					Prepared: 04/04/16 10:09		Analyzed: 04/06/16 19:15					
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12)												
SM4500-NH3 Mod												
Ammonia as N	**15.3**	0.138	0.275	mg/kg dry	1	---	9.74	---	---	44	10%	Q-01
Matrix Spike (6040054-MS2)					Prepared: 04/04/16 10:09		Analyzed: 04/06/16 19:15					
QC Source Sample: 5237-160331-NDP-EMB001 (A6D0013-12)												
SM4500-NH3 Mod												
Ammonia as N	11.2	0.138	0.277	mg/kg dry	1	2.77	9.74	54	90-110%	---	---	Q-01

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch 6040048 - Total Solids (Dry Weight) **Soil**

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040064							
A6D0013-02	Sediment	NWTPH-Dx	03/31/16 10:35	04/04/16 12:54	10.54g/5mL	10g/5mL	0.95
A6D0013-04	Sediment	NWTPH-Dx	03/31/16 10:45	04/04/16 12:54	11.85g/5mL	10g/5mL	0.84
A6D0013-06	Sediment	NWTPH-Dx	03/31/16 11:00	04/04/16 12:54	11.03g/5mL	10g/5mL	0.91
A6D0013-08	Sediment	NWTPH-Dx	03/31/16 11:00	04/04/16 12:54	11.42g/5mL	10g/5mL	0.88
A6D0013-10	Sediment	NWTPH-Dx	03/31/16 11:40	04/04/16 12:54	11.13g/5mL	10g/5mL	0.90
A6D0013-12	Sediment	NWTPH-Dx	03/31/16 14:40	04/04/16 12:54	11.57g/5mL	10g/5mL	0.86

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040011							
A6D0013-01	Sediment	NWTPH-Gx (MS)	03/31/16 10:35	03/31/16 10:35	5.12g/5mL	5g/5mL	0.98
A6D0013-03	Sediment	NWTPH-Gx (MS)	03/31/16 10:45	03/31/16 10:45	6.43g/5mL	5g/5mL	0.78
A6D0013-05	Sediment	NWTPH-Gx (MS)	03/31/16 11:00	03/31/16 11:00	5.46g/5mL	5g/5mL	0.92
A6D0013-07	Sediment	NWTPH-Gx (MS)	03/31/16 11:00	03/31/16 11:00	4.87g/5mL	5g/5mL	1.03
A6D0013-09	Sediment	NWTPH-Gx (MS)	03/31/16 11:40	03/31/16 11:40	4.42g/5mL	5g/5mL	1.13
A6D0013-11	Sediment	NWTPH-Gx (MS)	03/31/16 14:40	03/31/16 14:40	4.82g/5mL	5g/5mL	1.04

BTEX Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040011							
A6D0013-01	Sediment	5035/8260B	03/31/16 10:35	03/31/16 10:35	5.12g/5mL	5g/5mL	0.98
A6D0013-03	Sediment	5035/8260B	03/31/16 10:45	03/31/16 10:45	6.43g/5mL	5g/5mL	0.78
A6D0013-05	Sediment	5035/8260B	03/31/16 11:00	03/31/16 11:00	5.46g/5mL	5g/5mL	0.92
A6D0013-07	Sediment	5035/8260B	03/31/16 11:00	03/31/16 11:00	4.87g/5mL	5g/5mL	1.03
A6D0013-09	Sediment	5035/8260B	03/31/16 11:40	03/31/16 11:40	4.42g/5mL	5g/5mL	1.13
A6D0013-11	Sediment	5035/8260B	03/31/16 14:40	03/31/16 14:40	4.82g/5mL	5g/5mL	1.04

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

SAMPLE PREPARATION INFORMATION

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040011							
A6D0013-03	Sediment	5035/8260B	03/31/16 10:45	03/31/16 10:45	6.43g/5mL	5g/5mL	0.78
A6D0013-09	Sediment	5035/8260B	03/31/16 11:40	03/31/16 11:40	4.42g/5mL	5g/5mL	1.13

Anions by EPA 300.0/9056A (Ion Chromatography)

Prep: Method Prep: Non-Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040311							
A6D0013-02	Sediment	EPA 9056A	03/31/16 10:35	04/12/16 12:45	5.1344g/50mL	5g/50mL	0.97
A6D0013-04	Sediment	EPA 9056A	03/31/16 10:45	04/12/16 12:45	5.0729g/50mL	5g/50mL	0.99
A6D0013-06	Sediment	EPA 9056A	03/31/16 11:00	04/12/16 12:45	5.1308g/50mL	5g/50mL	0.98
A6D0013-08	Sediment	EPA 9056A	03/31/16 11:00	04/12/16 12:45	5.1689g/50mL	5g/50mL	0.97
A6D0013-10	Sediment	EPA 9056A	03/31/16 11:40	04/12/16 12:45	5.1022g/50mL	5g/50mL	0.98
A6D0013-12	Sediment	EPA 9056A	03/31/16 14:40	04/12/16 12:45	5.0094g/50mL	5g/50mL	1.00

Cyanide - Total (Non-aqueous)

Prep: Method Prep: Non-Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040256							
A6D0013-02	Sediment	EPA 9013M/9014	03/31/16 10:35	04/11/16 09:44	2.573g/50mL	2.5g/50mL	0.97
A6D0013-04	Sediment	EPA 9013M/9014	03/31/16 10:45	04/11/16 09:44	2.5915g/50mL	2.5g/50mL	0.97
A6D0013-06	Sediment	EPA 9013M/9014	03/31/16 11:00	04/11/16 09:44	2.5261g/50mL	2.5g/50mL	0.99
A6D0013-08	Sediment	EPA 9013M/9014	03/31/16 11:00	04/11/16 09:44	2.5566g/50mL	2.5g/50mL	0.98
A6D0013-10	Sediment	EPA 9013M/9014	03/31/16 11:40	04/11/16 09:44	2.5967g/50mL	2.5g/50mL	0.96
A6D0013-12	Sediment	EPA 9013M/9014	03/31/16 14:40	04/11/16 09:44	2.5931g/50mL	2.5g/50mL	0.96

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040143							
A6D0013-02RE1	Sediment	EPA 8270D	03/31/16 10:35	04/06/16 11:48	15.23g/2mL	15g/2mL	0.99
A6D0013-04RE1	Sediment	EPA 8270D	03/31/16 10:45	04/06/16 11:48	15.87g/2mL	15g/2mL	0.95
A6D0013-06RE1	Sediment	EPA 8270D	03/31/16 11:00	04/06/16 11:48	15.18g/2mL	15g/2mL	0.99

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Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

SAMPLE PREPARATION INFORMATION

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6D0013-08RE1	Sediment	EPA 8270D	03/31/16 11:00	04/06/16 11:48	15.79g/2mL	15g/2mL	0.95
A6D0013-10RE1	Sediment	EPA 8270D	03/31/16 11:40	04/06/16 11:48	15.56g/2mL	15g/2mL	0.96
A6D0013-12RE1	Sediment	EPA 8270D	03/31/16 14:40	04/06/16 11:48	15.21g/2mL	15g/2mL	0.99

Alkylated PAH Homologs by 8270D Modified

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040143							
A6D0013-02RE1	Sediment	GC/MS Scan	03/31/16 10:35	04/06/16 11:48	15.23g/2mL	10g/2mL	0.66
A6D0013-04RE1	Sediment	GC/MS Scan	03/31/16 10:45	04/06/16 11:48	15.87g/2mL	10g/2mL	0.63
A6D0013-06RE1	Sediment	GC/MS Scan	03/31/16 11:00	04/06/16 11:48	15.18g/2mL	10g/2mL	0.66
A6D0013-08RE1	Sediment	GC/MS Scan	03/31/16 11:00	04/06/16 11:48	15.79g/2mL	10g/2mL	0.63
A6D0013-10RE1	Sediment	GC/MS Scan	03/31/16 11:40	04/06/16 11:48	15.56g/2mL	10g/2mL	0.64
A6D0013-12RE1	Sediment	GC/MS Scan	03/31/16 14:40	04/06/16 11:48	15.21g/2mL	10g/2mL	0.66

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040194							
A6D0013-02	Sediment	EPA 6020A	03/31/16 10:35	04/07/16 14:45	0.517g/50mL	0.5g/50mL	0.97
A6D0013-02RE1	Sediment	EPA 6020A	03/31/16 10:35	04/07/16 14:45	0.517g/50mL	0.5g/50mL	0.97
A6D0013-04	Sediment	EPA 6020A	03/31/16 10:45	04/07/16 14:45	0.52g/50mL	0.5g/50mL	0.96
A6D0013-04RE1	Sediment	EPA 6020A	03/31/16 10:45	04/07/16 14:45	0.52g/50mL	0.5g/50mL	0.96
A6D0013-06	Sediment	EPA 6020A	03/31/16 11:00	04/07/16 14:45	0.504g/50mL	0.5g/50mL	0.99
A6D0013-08	Sediment	EPA 6020A	03/31/16 11:00	04/07/16 14:45	0.514g/50mL	0.5g/50mL	0.97
A6D0013-10	Sediment	EPA 6020A	03/31/16 11:40	04/07/16 14:45	0.5g/50mL	0.5g/50mL	1.00
A6D0013-12	Sediment	EPA 6020A	03/31/16 14:40	04/07/16 14:45	0.512g/50mL	0.5g/50mL	0.98

Conventional Chemistry Parameters

Prep: PSEP TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040241							
A6D0013-02	Sediment	SM 5310B MOD	03/31/16 10:35	04/08/16 17:20	5g/5g	5g/5g	NA

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: PSEP TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6D0013-04	Sediment	SM 5310B MOD	03/31/16 10:45	04/08/16 17:20	5g/5g	5g/5g	NA
A6D0013-06	Sediment	SM 5310B MOD	03/31/16 11:00	04/08/16 17:20	5g/5g	5g/5g	NA
A6D0013-08	Sediment	SM 5310B MOD	03/31/16 11:00	04/08/16 17:20	5g/5g	5g/5g	NA
A6D0013-10	Sediment	SM 5310B MOD	03/31/16 11:40	04/08/16 17:20	5g/5g	5g/5g	NA
A6D0013-12	Sediment	SM 5310B MOD	03/31/16 14:40	04/08/16 17:20	5g/5g	5g/5g	NA

Ammonia by UV Digestion/Gas Diffusion/Colorimetric Detection

Prep: Method Prep: Non-Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040054							
A6D0013-02	Sediment	SM4500-NH3 Mod	03/31/16 10:35	04/04/16 10:09	5.7328g/50mL	5g/50mL	0.87
A6D0013-04	Sediment	SM4500-NH3 Mod	03/31/16 10:45	04/04/16 10:09	5.2486g/50mL	5g/50mL	0.95
A6D0013-06	Sediment	SM4500-NH3 Mod	03/31/16 11:00	04/04/16 10:09	5.1g/50mL	5g/50mL	0.98
A6D0013-08	Sediment	SM4500-NH3 Mod	03/31/16 11:00	04/04/16 10:09	5.8609g/50mL	5g/50mL	0.85
A6D0013-10	Sediment	SM4500-NH3 Mod	03/31/16 11:40	04/04/16 10:09	5.8975g/50mL	5g/50mL	0.85
A6D0013-12	Sediment	SM4500-NH3 Mod	03/31/16 14:40	04/04/16 10:09	5.3566g/50mL	5g/50mL	0.93

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040048							
A6D0013-01	Sediment	EPA 8000C	03/31/16 10:35	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-02	Sediment	EPA 8000C	03/31/16 10:35	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-03	Sediment	EPA 8000C	03/31/16 10:45	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-04	Sediment	EPA 8000C	03/31/16 10:45	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-05	Sediment	EPA 8000C	03/31/16 11:00	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-06	Sediment	EPA 8000C	03/31/16 11:00	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-07	Sediment	EPA 8000C	03/31/16 11:00	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-08	Sediment	EPA 8000C	03/31/16 11:00	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-09	Sediment	EPA 8000C	03/31/16 11:40	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-10	Sediment	EPA 8000C	03/31/16 11:40	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-11	Sediment	EPA 8000C	03/31/16 14:40	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA
A6D0013-12	Sediment	EPA 8000C	03/31/16 14:40	04/04/16 14:53	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

AMENDED REPORT

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Hahn and Associates	Project: **Siltronic RI-Doane Creek**	
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

Notes and Definitions

Qualifiers:

A-01	% solids data copied from corresponding even numbered sample IDs to allow dry wt. correction of 5035 Gx analysis.
E-03	Result is reported as an estimated value. QA protocols have not been met for this analyte.
F-03	The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
F-15	Results for diesel are estimated due to overlap from the reported oil result.
F-16	Results for oil are estimated due to overlap from the reported diesel result.
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-05	Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
Q-16	Reanalysis of an original Batch QC sample.
Q-17	RPD between original and duplicate sample is outside of established control limits.
Q-29	Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-37	Sample is non-homogenous. Sample results are less than MRL and duplicate results have hits greater than the MRL. See Duplicate results.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
R-04	Reporting levels elevated due to dilution necessary for analysis.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit

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NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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Philip Nerenberg, Lab Director

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434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:18

A6D0013

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: APEX Laboratories, Tigard, Oregon
Lab Project No.
1 of 1

Project Manager: Rob Ede
Project No.: 5237-10dc
Project Name: Siltronic RI - Doane Creek
Collected by: Ben Uhl / Jane Kerin

Liquid with Sediment Sample: Test Filtrate / Test Sediment / Test Both
Multi-Phase Sample: Test One (which) / Test Separately / Shake

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Preliminary Results

Sample Number Prefix: 5237-160331-NDP-

- Anchor EDD and Full Data Validation Package
- Target MDLs as per Philip N.
- Metals = aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, sodium, silver, thallium, vanadium, zinc

3 day turn around time for Dx, Gx+BTEX

Lab ID	Sample #	Date	Time	Sample Description	Soil	Water	Other	Number of Containers	SVOCs (Full List) by EPA Method 8270D	LL PAHs and Homologs by EPA Method 8270D/8270D-M	Soot Carbon by EPA Method 9060 mod	TOC by EPA Method 5310	Sulfide by EPA Method 376.2 mod	Sulfate by EPA Method 9056	Ammonia by SM 4500 mod	Total Cyanide by EPA Method 9014	Thiocyanate by SM 4500 mod	* Metals by EPA Method 6020	Diesel and Oil-Range TPH by NWTPH-Dx	TPH-Gx+BTEX	EPH by NWTPH-EPH	VPH by NWTPH-VPH	VOCs by EPA Method 8260B	RUSH	Remarks
	SED003G	31-Mar-16	10:35	NDP Sediment -003 (0.5')	X			2												X					
	SED003	31-Mar-16	10:35	NDP Sediment -003 (0-0.5')	X			5	X	X	X	X	X	X	X	X	X	X	X						
	SED002G	31-Mar-16	10:45	NDP Sediment -002 (0.5')	X			2												X					
	SED002	31-Mar-16	10:45	NDP Sediment -002 (0-0.5')	X			7	X	X	X	X	X	X	X	X	X	X	X						
	SED001G	31-Mar-16	11:00	NDP Sediment -001 (0.5')	X			2												X					
	SED001	31-Mar-16	11:00	NDP Sediment -001 (0-0.5')	X			7	X	X	X	X	X	X	X	X	X	X	X						
	SED005G	31-Mar-16	11:00	NDP Sediment -005 (0.5')	X			2												X					
	SED005	31-Mar-16	11:00	NDP Sediment -005 (0-0.5')	X			7	X	X	X	X	X	X	X	X	X	X	X						
	SED004G	31-Mar-16	11:40	NDP Sediment -004 (0.5')	X			2												X					
	SED004	31-Mar-16	11:40	NDP Sediment -004 (0-0.5')	X			7	X	X	X	X	X	X	X	X	X	X	X						
	EMB001G	31-Mar-16	14:40	NDP Embankment (2.5')	X			2												X					
	EMB001	31-Mar-16	14:40	NDP Embankment (0-3.5)	X			5	X	X	X	X	X	X	X	X	X	X	X						

Relinquished by	Company	Date	Time	Received by	Company
Ben Uhl	HAHN & ASSOC	4/1/16	1020	J. Sihm	Apex