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 A6C1076, which was received by the laboratory on 3/29/2016 at 12:02:00PM.

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 22:00

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
5237-160328-DC-SED063G	A6C1076-01	Sediment	03/28/16 10:30	03/29/16 12:02
5237-160328-DC-SED063	A6C1076-02	Sediment	03/28/16 10:30	03/29/16 12:02
5237-160328-DC-SED065G	A6C1076-03	Sediment	03/28/16 11:00	03/29/16 12:02
5237-160328-DC-SED065	A6C1076-04	Sediment	03/28/16 11:00	03/29/16 12:02
5237-160328-DC-SED068G	A6C1076-05	Sediment	03/28/16 11:30	03/29/16 12:02
5237-160328-DC-SED068	A6C1076-06	Sediment	03/28/16 11:30	03/29/16 12:02
5237-160328-DC-SED070G	A6C1076-07	Sediment	03/28/16 12:05	03/29/16 12:02
5237-160328-DC-SED070	A6C1076-08	Sediment	03/28/16 12:05	03/29/16 12:02
5237-160328-DC-SED072G	A6C1076-09	Sediment	03/28/16 12:30	03/29/16 12:02
5237-160328-DC-SED072	A6C1076-10	Sediment	03/28/16 12:30	03/29/16 12:02
5237-160328-DC-SED075G	A6C1076-11	Sediment	03/28/16 12:50	03/29/16 12:02
5237-160328-DC-SED075	A6C1076-12	Sediment	03/28/16 12:50	03/29/16 12:02
5237-160328-DC-SED077G	A6C1076-13	Sediment	03/28/16 13:15	03/29/16 12:02
5237-160328-DC-SED077	A6C1076-14	Sediment	03/28/16 13:15	03/29/16 12:02
5237-160328-DC-SED077GD	A6C1076-15	Sediment	03/28/16 13:15	03/29/16 12:02
5237-160328-DC-SED077D	A6C1076-16	Sediment	03/28/16 13:15	03/29/16 12:02
5237-160328-DC-SED082G	A6C1076-17	Sediment	03/28/16 13:45	03/29/16 12:02
5237-160328-DC-SED082	A6C1076-18	Sediment	03/28/16 13:45	03/29/16 12:02
5237-160328-DC-SED085G	A6C1076-19	Sediment	03/28/16 14:15	03/29/16 12:02
5237-160328-DC-SED085	A6C1076-20	Sediment	03/28/16 14:15	03/29/16 12:02
5237-160328-DC-SED087G	A6C1076-21	Sediment	03/28/16 14:45	03/29/16 12:02
5237-160328-DC-SED087	A6C1076-22	Sediment	03/28/16 14:45	03/29/16 12:02

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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 22:00

ANALYTICAL CASE NARRATIVE

Work Order: A6C1076

Amended Report Revision 1:

This report supersedes all previous reports.

Analysis of full list VOCs on samples SED087G and SED075G were added after the previous report version had been completed.

Philip Nerenberg
Lab Director
5/5/16

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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 22:00

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	**21.6**	10.9	21.8	mg/kg dry	1	03/31/16 18:26	NWTPH-Dx	J
Oil	**37.5**	21.8	43.6	"	"	"	"	J
Surrogate: o-Terphenyl (Surr)			*Recovery: 94 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	ND	14.5	28.9	mg/kg dry	1	03/31/16 19:25	NWTPH-Dx	
Oil	**76.4**	28.9	57.9	"	"	"	"	F-03
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	ND	12.2	24.3	mg/kg dry	1	03/31/16 20:05	NWTPH-Dx	
Oil	**45.5**	24.3	48.6	"	"	"	"	J
Surrogate: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED070 (A6C1076-08)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	ND	10.6	21.2	mg/kg dry	1	03/31/16 20:45	NWTPH-Dx	
Oil	**50.1**	21.2	42.4	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 94 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	ND	14.2	28.4	mg/kg dry	1	03/31/16 21:25	NWTPH-Dx	
Oil	**105**	28.4	56.8	"	"	"	"	F-03
Surrogate: o-Terphenyl (Surr)			*Recovery: 93 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED075 (A6C1076-12RE1)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	ND	29.8	59.6	mg/kg dry	2	04/01/16 11:20	NWTPH-Dx	
Oil	**286**	59.6	119	"	"	"	"	F-03
Surrogate: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED077 (A6C1076-14)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	ND	13.3	26.7	mg/kg dry	1	03/31/16 22:25	NWTPH-Dx	
Oil	ND	26.7	53.3	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED077D (A6C1076-16)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	ND	13.6	27.2	mg/kg dry	1	03/31/16 22:45	NWTPH-Dx	
Oil	ND	27.2	54.4	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 92 %*	*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 22:00

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	**15.4**	13.9	27.8	mg/kg dry	1	03/31/16 23:05	NWTPH-Dx	J
Oil	**30.5**	27.8	55.7	"	"	"	"	J
Surrogate: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	**14.5**	10.7	21.5	mg/kg dry	1	03/31/16 23:25	NWTPH-Dx	J
Oil	**26.7**	21.5	42.9	"	"	"	"	J
Surrogate: o-Terphenyl (Surr)			*Recovery: 99 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6031009**			
Diesel	**33.9**	11.3	22.7	mg/kg dry	1	04/01/16 00:05	NWTPH-Dx	F-11, F-15
Oil	**92.7**	22.7	45.3	"	"	"	"	F-03, F-16
Surrogate: o-Terphenyl (Surr)			*Recovery: 93 %*	*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 22:00

ANALYTICAL SAMPLE RESULTS

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063G (A6C1076-01)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	3.92	7.85	mg/kg dry	50	03/30/16 15:55	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 98 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*95 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED065G (A6C1076-03)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	5.55	11.1	mg/kg dry	50	03/30/16 16:45	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*96 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED068G (A6C1076-05)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	4.00	7.99	mg/kg dry	50	03/30/16 17:09	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*97 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED070G (A6C1076-07)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	2.97	5.94	mg/kg dry	50	03/30/16 17:34	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 95 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*97 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED072G (A6C1076-09)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	7.68	15.4	mg/kg dry	50	03/30/16 17:59	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 105 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED075G (A6C1076-11)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	7.09	14.2	mg/kg dry	50	03/30/16 18:23	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 104 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*100 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED077G (A6C1076-13)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	4.95	9.89	mg/kg dry	50	03/30/16 18:48	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 97 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*100 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED077GD (A6C1076-15)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	4.73	9.46	mg/kg dry	50	03/30/16 19:13	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 97 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*101 %*	*Limits: 50-150 %*	"	"	"	

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ANALYTICAL SAMPLE RESULTS

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED082G (A6C1076-17)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	5.64	11.3	mg/kg dry	50	03/30/16 19:39	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 98 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED085G (A6C1076-19)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	3.10	6.20	mg/kg dry	50	03/30/16 20:04	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 92 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	
5237-160328-DC-SED087G (A6C1076-21)			**Matrix: Sediment**		**Batch: 6030957**			
Gasoline Range Organics	ND	3.71	7.42	mg/kg dry	50	03/30/16 20:29	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 98 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*103 %*	*Limits: 50-150 %*	"	"	"	

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ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063G (A6C1076-01)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	7.85	15.7	ug/kg dry	50	03/30/16 15:55	5035/8260B	
Toluene	ND	39.2	78.5	"	"	"	"	
Ethylbenzene	ND	19.6	39.2	"	"	"	"	
Xylenes, total	ND	58.9	118	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 116 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*101 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED065G (A6C1076-03)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	11.1	22.2	ug/kg dry	50	03/30/16 16:45	5035/8260B	
Toluene	ND	55.5	111	"	"	"	"	
Ethylbenzene	ND	27.8	55.5	"	"	"	"	
Xylenes, total	ND	83.3	167	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 117 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*103 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED068G (A6C1076-05)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	7.99	16.0	ug/kg dry	50	03/30/16 17:09	5035/8260B	
Toluene	ND	40.0	79.9	"	"	"	"	
Ethylbenzene	ND	20.0	40.0	"	"	"	"	
Xylenes, total	ND	59.9	120	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 117 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*104 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED070G (A6C1076-07)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	5.94	11.9	ug/kg dry	50	03/30/16 17:34	5035/8260B	
Toluene	ND	29.7	59.4	"	"	"	"	
Ethylbenzene	ND	14.9	29.7	"	"	"	"	
Xylenes, total	ND	44.6	89.1	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 116 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*103 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	50	"	"	

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Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:00

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED070G (A6C1076-07)			**Matrix: Sediment**		**Batch: 6030957**			
Surrogate: 4-Bromofluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*	1	"	5035/8260B	
5237-160328-DC-SED072G (A6C1076-09)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	15.4	30.7	ug/kg dry	50	03/30/16 17:59	5035/8260B	
Toluene	ND	76.8	154	"	"	"	"	
Ethylbenzene	ND	38.4	76.8	"	"	"	"	
Xylenes, total	ND	115	230	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 123 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*106 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*92 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED075G (A6C1076-11)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	14.2	28.3	ug/kg dry	50	03/30/16 18:23	5035/8260B	
Toluene	ND	70.9	142	"	"	"	"	
Ethylbenzene	ND	35.4	70.9	"	"	"	"	
Xylenes, total	ND	106	213	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 115 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*106 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*91 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED077G (A6C1076-13)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	9.89	19.8	ug/kg dry	50	03/30/16 18:48	5035/8260B	
Toluene	ND	49.5	98.9	"	"	"	"	
Ethylbenzene	ND	24.7	49.5	"	"	"	"	
Xylenes, total	ND	74.2	148	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 113 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*107 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED077GD (A6C1076-15)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	9.46	18.9	ug/kg dry	50	03/30/16 19:13	5035/8260B	
Toluene	ND	47.3	94.6	"	"	"	"	
Ethylbenzene	ND	23.7	47.3	"	"	"	"	
Xylenes, total	ND	71.0	142	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 123 %*	*Limits: 70-130 %*	1	"	"	

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Philip Nerenberg

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 22:00

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077GD (A6C1076-15)			**Matrix: Sediment**		**Batch: 6030957**			
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 108 %*	*Limits: 70-130 %*	1	"	5035/8260B	
Toluene-d8 (Surr)			*100 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED082G (A6C1076-17)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	11.3	22.6	ug/kg dry	50	03/30/16 19:39	5035/8260B	
Toluene	ND	56.4	113	"	"	"	"	
Ethylbenzene	ND	28.2	56.4	"	"	"	"	
Xylenes, total	ND	84.6	169	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 119 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*108 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED085G (A6C1076-19)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	6.20	12.4	ug/kg dry	50	03/30/16 20:04	5035/8260B	
Toluene	ND	31.0	62.0	"	"	"	"	
Ethylbenzene	ND	15.5	31.0	"	"	"	"	
Xylenes, total	ND	46.5	93.0	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 118 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*107 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*101 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*94 %*	*Limits: 70-130 %*	1	"	"	
5237-160328-DC-SED087G (A6C1076-21)			**Matrix: Sediment**		**Batch: 6030957**			
Benzene	ND	7.42	14.8	ug/kg dry	50	03/30/16 20:29	5035/8260B	
Toluene	ND	37.1	74.2	"	"	"	"	
Ethylbenzene	ND	18.5	37.1	"	"	"	"	
Xylenes, total	ND	55.6	111	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 131 %*	*Limits: 70-130 %*	1	"	"	*S-06*
1,4-Difluorobenzene (Surr)			*109 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	1	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED075G (A6C1076-11)			**Matrix: Sediment**		**Batch: 6030957**			
Acetone	ND	1420	2830	ug/kg dry	50	03/30/16 18:23	5035/8260B	
Benzene	ND	14.2	28.3	"	"	"	"	
Bromobenzene	ND	35.4	70.9	"	"	"	"	
Bromochloromethane	ND	70.9	142	"	"	"	"	
Bromodichloromethane	ND	142	283	"	"	"	"	
Bromoform	ND	354	709	"	"	"	"	
Bromomethane	ND	1420	1420	"	"	"	"	
2-Butanone (MEK)	ND	709	1420	"	"	"	"	
n-Butylbenzene	ND	70.9	142	"	"	"	"	
sec-Butylbenzene	ND	70.9	142	"	"	"	"	
tert-Butylbenzene	ND	70.9	142	"	"	"	"	
Carbon tetrachloride	ND	354	709	"	"	"	"	
Chlorobenzene	ND	35.4	70.9	"	"	"	"	
Chloroethane	ND	709	1420	"	"	"	"	E-03
Chloroform	ND	70.9	142	"	"	"	"	
Chloromethane	ND	354	709	"	"	"	"	
2-Chlorotoluene	ND	70.9	142	"	"	"	"	
4-Chlorotoluene	ND	70.9	142	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	354	709	"	"	"	"	
Dibromochloromethane	ND	354	709	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	70.9	142	"	"	"	"	
Dibromomethane	ND	70.9	142	"	"	"	"	
1,2-Dichlorobenzene	ND	35.4	70.9	"	"	"	"	
1,3-Dichlorobenzene	ND	35.4	70.9	"	"	"	"	
1,4-Dichlorobenzene	ND	35.4	70.9	"	"	"	"	
Dichlorodifluoromethane	ND	142	283	"	"	"	"	
1,1-Dichloroethane	ND	35.4	70.9	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	35.4	70.9	"	"	"	"	
1,1-Dichloroethene	ND	35.4	70.9	"	"	"	"	
cis-1,2-Dichloroethene	ND	35.4	70.9	"	"	"	"	
trans-1,2-Dichloroethene	ND	35.4	70.9	"	"	"	"	
1,2-Dichloropropane	ND	35.4	70.9	"	"	"	"	
1,3-Dichloropropane	ND	70.9	142	"	"	"	"	
2,2-Dichloropropane	ND	70.9	142	"	"	"	"	
1,1-Dichloropropene	ND	70.9	142	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED075G (A6C1076-11)			**Matrix: Sediment**		**Batch: 6030957**			
cis-1,3-Dichloropropene	ND	70.9	142	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	354	709	"	"	"	"	
Ethylbenzene	ND	35.4	70.9	"	"	"	"	
Hexachlorobutadiene	ND	142	283	"	"	"	"	
2-Hexanone	ND	709	1420	"	"	"	"	
Isopropylbenzene	ND	70.9	142	"	"	"	"	
4-Isopropyltoluene	ND	70.9	142	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	709	1420	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	70.9	142	"	"	"	"	
Methylene chloride	ND	354	709	"	"	"	"	
Naphthalene	ND	142	283	"	"	"	"	
n-Propylbenzene	ND	35.4	70.9	"	"	"	"	
Styrene	ND	70.9	142	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	35.4	70.9	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	354	709	"	"	"	"	
Tetrachloroethene (PCE)	ND	35.4	70.9	"	"	"	"	
Toluene	ND	70.9	142	"	"	"	"	
1,2,3-Trichlorobenzene	ND	354	709	"	"	"	"	
1,2,4-Trichlorobenzene	ND	354	709	"	"	"	"	
1,1,1-Trichloroethane	ND	35.4	70.9	"	"	"	"	
1,1,2-Trichloroethane	ND	35.4	70.9	"	"	"	"	
Trichloroethene (TCE)	ND	35.4	70.9	"	"	"	"	
Trichlorofluoromethane	ND	142	283	"	"	"	"	E-03
1,2,3-Trichloropropane	ND	70.9	142	"	"	"	"	
1,2,4-Trimethylbenzene	ND	70.9	142	"	"	"	"	
1,3,5-Trimethylbenzene	ND	70.9	142	"	"	"	"	
Vinyl chloride	ND	35.4	70.9	"	"	"	"	
m,p-Xylene	ND	70.9	142	"	"	"	"	
o-Xylene	ND	35.4	70.9	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 115 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*106 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*91 %*	*Limits: 70-130 %*	1	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED087G (A6C1076-21)			**Matrix: Sediment**		**Batch: 6030957**			
Acetone	ND	742	1480	ug/kg dry	50	03/30/16 20:29	5035/8260B	
Benzene	ND	7.42	14.8	"	"	"	"	
Bromobenzene	ND	18.5	37.1	"	"	"	"	
Bromochloromethane	ND	37.1	74.2	"	"	"	"	
Bromodichloromethane	ND	74.2	148	"	"	"	"	
Bromoform	ND	185	371	"	"	"	"	
Bromomethane	ND	742	742	"	"	"	"	
2-Butanone (MEK)	ND	371	742	"	"	"	"	
n-Butylbenzene	ND	37.1	74.2	"	"	"	"	
sec-Butylbenzene	ND	37.1	74.2	"	"	"	"	
tert-Butylbenzene	ND	37.1	74.2	"	"	"	"	
Carbon tetrachloride	ND	185	371	"	"	"	"	
Chlorobenzene	ND	18.5	37.1	"	"	"	"	
Chloroethane	ND	371	742	"	"	"	"	E-03
Chloroform	ND	37.1	74.2	"	"	"	"	
Chloromethane	ND	185	371	"	"	"	"	
2-Chlorotoluene	ND	37.1	74.2	"	"	"	"	
4-Chlorotoluene	ND	37.1	74.2	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	185	371	"	"	"	"	
Dibromochloromethane	ND	185	371	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	37.1	74.2	"	"	"	"	
Dibromomethane	ND	37.1	74.2	"	"	"	"	
1,2-Dichlorobenzene	ND	18.5	37.1	"	"	"	"	
1,3-Dichlorobenzene	ND	18.5	37.1	"	"	"	"	
1,4-Dichlorobenzene	ND	18.5	37.1	"	"	"	"	
Dichlorodifluoromethane	ND	74.2	148	"	"	"	"	
1,1-Dichloroethane	ND	18.5	37.1	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	18.5	37.1	"	"	"	"	
1,1-Dichloroethene	ND	18.5	37.1	"	"	"	"	
cis-1,2-Dichloroethene	ND	18.5	37.1	"	"	"	"	
trans-1,2-Dichloroethene	ND	18.5	37.1	"	"	"	"	
1,2-Dichloropropane	ND	18.5	37.1	"	"	"	"	
1,3-Dichloropropane	ND	37.1	74.2	"	"	"	"	
2,2-Dichloropropane	ND	37.1	74.2	"	"	"	"	
1,1-Dichloropropene	ND	37.1	74.2	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED087G (A6C1076-21)			**Matrix: Sediment**		**Batch: 6030957**			
cis-1,3-Dichloropropene	ND	37.1	74.2	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	185	371	"	"	"	"	
Ethylbenzene	ND	18.5	37.1	"	"	"	"	
Hexachlorobutadiene	ND	74.2	148	"	"	"	"	
2-Hexanone	ND	371	742	"	"	"	"	
Isopropylbenzene	ND	37.1	74.2	"	"	"	"	
4-Isopropyltoluene	ND	37.1	74.2	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	371	742	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	37.1	74.2	"	"	"	"	
Methylene chloride	ND	185	371	"	"	"	"	
Naphthalene	ND	74.2	148	"	"	"	"	
n-Propylbenzene	ND	18.5	37.1	"	"	"	"	
Styrene	ND	37.1	74.2	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	18.5	37.1	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	185	371	"	"	"	"	
Tetrachloroethene (PCE)	ND	18.5	37.1	"	"	"	"	
Toluene	ND	37.1	74.2	"	"	"	"	
1,2,3-Trichlorobenzene	ND	185	371	"	"	"	"	
1,2,4-Trichlorobenzene	ND	185	371	"	"	"	"	
1,1,1-Trichloroethane	ND	18.5	37.1	"	"	"	"	
1,1,2-Trichloroethane	ND	18.5	37.1	"	"	"	"	
Trichloroethene (TCE)	ND	18.5	37.1	"	"	"	"	
Trichlorofluoromethane	ND	74.2	148	"	"	"	"	E-03
1,2,3-Trichloropropane	ND	37.1	74.2	"	"	"	"	
1,2,4-Trimethylbenzene	ND	37.1	74.2	"	"	"	"	
1,3,5-Trimethylbenzene	ND	37.1	74.2	"	"	"	"	
Vinyl chloride	ND	18.5	37.1	"	"	"	"	
m,p-Xylene	ND	37.1	74.2	"	"	"	"	
o-Xylene	ND	18.5	37.1	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 131 %*	*Limits: 70-130 %*	1	"	"	*S-06*
1,4-Difluorobenzene (Surr)			*109 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	50	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	1	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Anions by EPA 300.0/9056A (Ion Chromatography)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	12.1	12.1	mg/kg dry	1	04/08/16 14:24	EPA 9056A	
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	15.9	15.9	mg/kg dry	1	04/08/16 14:45	EPA 9056A	
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	**21.4**	13.1	13.1	mg/kg dry	1	04/08/16 15:50	EPA 9056A	
5237-160328-DC-SED070 (A6C1076-08)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	11.5	11.5	mg/kg dry	1	04/08/16 16:12	EPA 9056A	
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	16.6	16.6	mg/kg dry	1	04/08/16 23:44	EPA 9056A	
5237-160328-DC-SED075 (A6C1076-12)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	16.8	16.8	mg/kg dry	1	04/09/16 00:06	EPA 9056A	
5237-160328-DC-SED077 (A6C1076-14)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	15.6	15.6	mg/kg dry	1	04/09/16 00:49	EPA 9056A	
5237-160328-DC-SED077D (A6C1076-16)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	15.2	15.2	mg/kg dry	1	04/08/16 18:21	EPA 9056A	
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	16.1	16.1	mg/kg dry	1	04/08/16 18:43	EPA 9056A	
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	ND	12.0	12.0	mg/kg dry	1	04/08/16 19:04	EPA 9056A	
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**					
Batch: 6040118								
Sulfate	**12.9**	12.4	12.4	mg/kg dry	1	04/08/16 19:26	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 22:00

ANALYTICAL SAMPLE RESULTS

Cyanide - Total (Non-aqueous)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.120	0.120	mg/kg dry	1	04/11/16 17:43	EPA 9013M/9014	
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.157	0.157	mg/kg dry	1	04/11/16 17:49	EPA 9013M/9014	
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.130	0.130	mg/kg dry	1	04/11/16 17:51	EPA 9013M/9014	
5237-160328-DC-SED070 (A6C1076-08)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	**0.127**	0.118	0.118	mg/kg dry	1	04/11/16 17:53	EPA 9013M/9014	
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.169	0.169	mg/kg dry	1	04/11/16 17:55	EPA 9013M/9014	
5237-160328-DC-SED075 (A6C1076-12)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.167	0.167	mg/kg dry	1	04/11/16 17:57	EPA 9013M/9014	
5237-160328-DC-SED077 (A6C1076-14)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.156	0.156	mg/kg dry	1	04/11/16 18:05	EPA 9013M/9014	
5237-160328-DC-SED077D (A6C1076-16)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.155	0.155	mg/kg dry	1	04/11/16 18:07	EPA 9013M/9014	
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	ND	0.162	0.162	mg/kg dry	1	04/11/16 19:01	EPA 9013M/9014	
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	**1.47**	0.118	0.118	mg/kg dry	1	04/11/16 18:11	EPA 9013M/9014	
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6040256**			
Cyanide, Total	**1.44**	0.125	0.125	mg/kg dry	1	04/11/16 18:13	EPA 9013M/9014	

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Philip Nerenberg

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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**25.1**	6.36	12.8	ug/kg dry	4	04/04/16 10:41	EPA 8270D	Q-42
Acenaphthylene	**7.70**	6.36	12.8	"	"	"	"	J
Anthracene	**34.3**	6.36	12.8	"	"	"	"	Q-42
Benz(a)anthracene	**237**	6.36	12.8	"	"	"	"	Q-42
Benzo(a)pyrene	**357**	9.56	19.1	"	"	"	"	Q-42
Benzo(b)fluoranthene	**418**	9.56	19.1	"	"	"	"	M-02, Q-42
Benzo(k)fluoranthene	**118**	9.56	19.1	"	"	"	"	M-02, Q-42
Benzo(g,h,i)perylene	**303**	6.36	12.8	"	"	"	"	Q-42
Chrysene	**282**	6.36	12.8	"	"	"	"	Q-42
Dibenz(a,h)anthracene	**50.4**	6.36	12.8	"	"	"	"	Q-42
Fluoranthene	**336**	6.36	12.8	"	"	"	"	Q-42
Fluorene	**10.5**	6.36	12.8	"	"	"	"	J, Q-42
Indeno(1,2,3-cd)pyrene	**269**	6.36	12.8	"	"	"	"	Q-42
1-Methylnaphthalene	ND	12.8	25.5	"	"	"	"	
2-Methylnaphthalene	ND	12.8	25.5	"	"	"	"	
Naphthalene	ND	12.8	25.5	"	"	"	"	
Phenanthrene	**155**	6.36	12.8	"	"	"	"	Q-42
Pyrene	**412**	6.36	12.8	"	"	"	"	Q-42
Carbazole	**26.3**	9.56	19.1	"	"	"	"	Q-42
Dibenzofuran	ND	6.36	12.8	"	"	"	"	
4-Chloro-3-methylphenol	ND	63.6	128	"	"	"	"	
2-Chlorophenol	ND	31.9	63.6	"	"	"	"	
2,4-Dichlorophenol	ND	31.9	63.6	"	"	"	"	
2,4-Dimethylphenol	ND	31.9	63.6	"	"	"	"	
2,4-Dinitrophenol	ND	159	319	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	159	319	"	"	"	"	
2-Methylphenol	ND	15.9	31.9	"	"	"	"	
3+4-Methylphenol(s)	ND	15.9	31.9	"	"	"	"	
2-Nitrophenol	ND	63.6	128	"	"	"	"	
4-Nitrophenol	ND	63.6	128	"	"	"	"	
Pentachlorophenol (PCP)	ND	63.6	128	"	"	"	"	
Phenol	ND	12.8	25.5	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	31.9	63.6	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	31.9	63.6	"	"	"	"	
2,4,5-Trichlorophenol	ND	31.9	63.6	"	"	"	"	
2,4,6-Trichlorophenol	ND	31.9	63.6	"	"	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

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503-718-2323 Phone
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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-ethylhexyl)phthalate	ND	95.6	191	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	63.6	128	"	"	"	"	
Diethylphthalate	ND	63.6	128	"	"	"	"	
Dimethylphthalate	ND	63.6	128	"	"	"	"	
Di-n-butylphthalate	ND	63.6	128	"	"	"	"	
Di-n-octyl phthalate	ND	63.6	128	"	"	"	"	
N-Nitrosodimethylamine	ND	15.9	31.9	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	15.9	31.9	"	"	"	"	
N-Nitrosodiphenylamine	ND	15.9	31.9	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	15.9	31.9	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	15.9	31.9	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	15.9	31.9	"	"	"	"	
Hexachlorobenzene	ND	6.36	12.8	"	"	"	"	
Hexachlorobutadiene	ND	15.9	31.9	"	"	"	"	
Hexachlorocyclopentadiene	ND	31.9	63.6	"	"	"	"	
Hexachloroethane	ND	15.9	31.9	"	"	"	"	
2-Chloronaphthalene	ND	6.36	12.8	"	"	"	"	
1,2-Dichlorobenzene	ND	15.9	31.9	"	"	"	"	
1,3-Dichlorobenzene	ND	15.9	31.9	"	"	"	"	
1,4-Dichlorobenzene	ND	15.9	31.9	"	"	"	"	
1,2,4-Trichlorobenzene	ND	15.9	31.9	"	"	"	"	
4-Bromophenyl phenyl ether	ND	15.9	31.9	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	15.9	31.9	"	"	"	"	
Aniline	ND	31.9	63.6	"	"	"	"	
4-Chloroaniline	ND	15.9	31.9	"	"	"	"	
2-Nitroaniline	ND	128	255	"	"	"	"	
3-Nitroaniline	ND	128	255	"	"	"	"	
4-Nitroaniline	ND	128	255	"	"	"	"	
Nitrobenzene	ND	63.6	128	"	"	"	"	
2,4-Dinitrotoluene	ND	63.6	128	"	"	"	"	
2,6-Dinitrotoluene	ND	63.6	128	"	"	"	"	
Benzoic acid	ND	798	1590	"	"	"	"	
Benzyl alcohol	ND	31.9	63.6	"	"	"	"	
Isophorone	ND	15.9	31.9	"	"	"	"	
Azobenzene (1,2-DPH)	ND	15.9	31.9	"	"	"	"	

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Philip Nerenberg

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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-Ethylhexyl) adipate	ND	159	319	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	63.6	128	"	"	"	"	
1,2-Dinitrobenzene	ND	159	319	"	"	"	"	
1,3-Dinitrobenzene	ND	159	319	"	"	"	"	
1,4-Dinitrobenzene	ND	159	319	"	"	"	"	
Pyridine	ND	31.9	63.6	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 45 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*60 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*46 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*90 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*39 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*91 %*	*Limits: 39-132 %*	"	"	"	
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**73.6**	8.45	17.0	ug/kg dry	4	04/01/16 18:22	EPA 8270D	
Acenaphthylene	**41.7**	8.45	17.0	"	"	"	"	
Anthracene	**138**	8.45	17.0	"	"	"	"	
Benz(a)anthracene	**661**	8.45	17.0	"	"	"	"	
Benzo(a)pyrene	**1020**	12.7	25.4	"	"	"	"	
Benzo(b)fluoranthene	**1290**	12.7	25.4	"	"	"	"	M-02
Benzo(k)fluoranthene	**485**	12.7	25.4	"	"	"	"	M-02
Benzo(g,h,i)perylene	**727**	8.45	17.0	"	"	"	"	
Chrysene	**812**	8.45	17.0	"	"	"	"	
Dibenz(a,h)anthracene	**149**	8.45	17.0	"	"	"	"	
Fluoranthene	**1080**	8.45	17.0	"	"	"	"	
Fluorene	**47.1**	8.45	17.0	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**732**	8.45	17.0	"	"	"	"	
1-Methylnaphthalene	ND	17.0	33.8	"	"	"	"	
2-Methylnaphthalene	**17.3**	17.0	33.8	"	"	"	"	J
Naphthalene	**46.4**	17.0	33.8	"	"	"	"	B-02
Phenanthrene	**411**	8.45	17.0	"	"	"	"	
Pyrene	**1150**	8.45	17.0	"	"	"	"	
Carbazole	**89.1**	12.7	25.4	"	"	"	"	
Dibenzofuran	**27.0**	8.45	17.0	"	"	"	"	
4-Chloro-3-methylphenol	ND	84.5	170	"	"	"	"	
2-Chlorophenol	ND	42.4	84.5	"	"	"	"	
2,4-Dichlorophenol	ND	42.4	84.5	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6040004**			
2,4-Dimethylphenol	ND	42.4	84.5	ug/kg dry	4	"	EPA 8270D	
2,4-Dinitrophenol	ND	211	424	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	211	424	"	"	"	"	
2-Methylphenol	ND	21.1	42.4	"	"	"	"	
3+4-Methylphenol(s)	ND	21.1	42.4	"	"	"	"	
2-Nitrophenol	ND	84.5	170	"	"	"	"	
4-Nitrophenol	ND	84.5	170	"	"	"	"	
Pentachlorophenol (PCP)	ND	84.5	170	"	"	"	"	
Phenol	ND	17.0	33.8	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	42.4	84.5	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	42.4	84.5	"	"	"	"	
2,4,5-Trichlorophenol	ND	42.4	84.5	"	"	"	"	
2,4,6-Trichlorophenol	ND	42.4	84.5	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	127	254	"	"	"	"	
Butyl benzyl phthalate	ND	84.5	170	"	"	"	"	
Diethylphthalate	ND	84.5	170	"	"	"	"	
Dimethylphthalate	ND	84.5	170	"	"	"	"	
Di-n-butylphthalate	ND	84.5	170	"	"	"	"	
Di-n-octyl phthalate	ND	84.5	170	"	"	"	"	
N-Nitrosodimethylamine	ND	21.1	42.4	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	21.1	42.4	"	"	"	"	
N-Nitrosodiphenylamine	ND	21.1	42.4	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	21.1	42.4	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	21.1	42.4	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	21.1	42.4	"	"	"	"	
Hexachlorobenzene	ND	8.45	17.0	"	"	"	"	
Hexachlorobutadiene	ND	21.1	42.4	"	"	"	"	
Hexachlorocyclopentadiene	ND	42.4	84.5	"	"	"	"	
Hexachloroethane	ND	21.1	42.4	"	"	"	"	
2-Chloronaphthalene	ND	8.45	17.0	"	"	"	"	
1,2-Dichlorobenzene	ND	21.1	42.4	"	"	"	"	
1,3-Dichlorobenzene	ND	21.1	42.4	"	"	"	"	
1,4-Dichlorobenzene	ND	21.1	42.4	"	"	"	"	
1,2,4-Trichlorobenzene	ND	21.1	42.4	"	"	"	"	
4-Bromophenyl phenyl ether	ND	21.1	42.4	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6040004**			
4-Chlorophenyl phenyl ether	ND	21.1	42.4	ug/kg dry	4	"	EPA 8270D	
Aniline	ND	42.4	84.5	"	"	"	"	
4-Chloroaniline	ND	21.1	42.4	"	"	"	"	
2-Nitroaniline	ND	170	338	"	"	"	"	
3-Nitroaniline	ND	170	338	"	"	"	"	
4-Nitroaniline	ND	170	338	"	"	"	"	
Nitrobenzene	ND	84.5	170	"	"	"	"	
2,4-Dinitrotoluene	ND	84.5	170	"	"	"	"	
2,6-Dinitrotoluene	ND	84.5	170	"	"	"	"	
Benzoic acid	ND	1060	2110	"	"	"	"	
Benzyl alcohol	ND	42.4	84.5	"	"	"	"	
Isophorone	ND	21.1	42.4	"	"	"	"	
Azobenzene (1,2-DPH)	ND	21.1	42.4	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	211	424	"	"	"	"	
3,3'-Dichlorobenzidine	ND	84.5	170	"	"	"	"	
1,2-Dinitrobenzene	ND	211	424	"	"	"	"	
1,3-Dinitrobenzene	ND	211	424	"	"	"	"	
1,4-Dinitrobenzene	ND	211	424	"	"	"	"	
Pyridine	ND	42.4	84.5	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 60 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*71 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*66 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*93 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*56 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*96 %*	*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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**21.1**	6.88	13.8	ug/kg dry	4	04/01/16 18:59	EPA 8270D	
Acenaphthylene	**12.4**	6.88	13.8	"	"	"	"	J
Anthracene	**35.1**	6.88	13.8	"	"	"	"	
Benz(a)anthracene	**245**	6.88	13.8	"	"	"	"	
Benzo(a)pyrene	**394**	10.3	20.7	"	"	"	"	
Benzo(b)fluoranthene	**520**	10.3	20.7	"	"	"	"	M-02
Benzo(k)fluoranthene	**188**	10.3	20.7	"	"	"	"	M-02
Benzo(g,h,i)perylene	**262**	6.88	13.8	"	"	"	"	
Chrysene	**299**	6.88	13.8	"	"	"	"	
Dibenz(a,h)anthracene	**59.1**	6.88	13.8	"	"	"	"	
Fluoranthene	**387**	6.88	13.8	"	"	"	"	
Fluorene	**14.7**	6.88	13.8	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**285**	6.88	13.8	"	"	"	"	
1-Methylnaphthalene	ND	13.8	27.6	"	"	"	"	
2-Methylnaphthalene	ND	13.8	27.6	"	"	"	"	
Naphthalene	ND	13.8	27.6	"	"	"	"	
Phenanthrene	**164**	6.88	13.8	"	"	"	"	
Pyrene	**398**	6.88	13.8	"	"	"	"	
Carbazole	**34.9**	10.3	20.7	"	"	"	"	
Dibenzofuran	ND	6.88	13.8	"	"	"	"	
4-Chloro-3-methylphenol	ND	68.8	138	"	"	"	"	
2-Chlorophenol	ND	34.5	68.8	"	"	"	"	
2,4-Dichlorophenol	ND	34.5	68.8	"	"	"	"	
2,4-Dimethylphenol	ND	34.5	68.8	"	"	"	"	
2,4-Dinitrophenol	ND	172	345	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	172	345	"	"	"	"	
2-Methylphenol	ND	17.2	34.5	"	"	"	"	
3+4-Methylphenol(s)	ND	17.2	34.5	"	"	"	"	
2-Nitrophenol	ND	68.8	138	"	"	"	"	
4-Nitrophenol	ND	68.8	138	"	"	"	"	
Pentachlorophenol (PCP)	ND	68.8	138	"	"	"	"	
Phenol	ND	13.8	27.6	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	34.5	68.8	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	34.5	68.8	"	"	"	"	
2,4,5-Trichlorophenol	ND	34.5	68.8	"	"	"	"	
2,4,6-Trichlorophenol	ND	34.5	68.8	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-ethylhexyl)phthalate	ND	103	207	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	68.8	138	"	"	"	"	
Diethylphthalate	ND	68.8	138	"	"	"	"	
Dimethylphthalate	ND	68.8	138	"	"	"	"	
Di-n-butylphthalate	ND	68.8	138	"	"	"	"	
Di-n-octyl phthalate	ND	68.8	138	"	"	"	"	
N-Nitrosodimethylamine	ND	17.2	34.5	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	17.2	34.5	"	"	"	"	
N-Nitrosodiphenylamine	ND	17.2	34.5	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	17.2	34.5	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	17.2	34.5	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	17.2	34.5	"	"	"	"	
Hexachlorobenzene	ND	6.88	13.8	"	"	"	"	
Hexachlorobutadiene	ND	17.2	34.5	"	"	"	"	
Hexachlorocyclopentadiene	ND	34.5	68.8	"	"	"	"	
Hexachloroethane	ND	17.2	34.5	"	"	"	"	
2-Chloronaphthalene	ND	6.88	13.8	"	"	"	"	
1,2-Dichlorobenzene	ND	17.2	34.5	"	"	"	"	
1,3-Dichlorobenzene	ND	17.2	34.5	"	"	"	"	
1,4-Dichlorobenzene	ND	17.2	34.5	"	"	"	"	
1,2,4-Trichlorobenzene	ND	17.2	34.5	"	"	"	"	
4-Bromophenyl phenyl ether	ND	17.2	34.5	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	17.2	34.5	"	"	"	"	
Aniline	ND	34.5	68.8	"	"	"	"	
4-Chloroaniline	ND	17.2	34.5	"	"	"	"	
2-Nitroaniline	ND	138	276	"	"	"	"	
3-Nitroaniline	ND	138	276	"	"	"	"	
4-Nitroaniline	ND	138	276	"	"	"	"	
Nitrobenzene	ND	68.8	138	"	"	"	"	
2,4-Dinitrotoluene	ND	68.8	138	"	"	"	"	
2,6-Dinitrotoluene	ND	68.8	138	"	"	"	"	
Benzoic acid	ND	863	1720	"	"	"	"	
Benzyl alcohol	ND	34.5	68.8	"	"	"	"	
Isophorone	ND	17.2	34.5	"	"	"	"	
Azobenzene (1,2-DPH)	ND	17.2	34.5	"	"	"	"	

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Philip Nerenberg

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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-Ethylhexyl) adipate	ND	172	345	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	68.8	138	"	"	"	"	
1,2-Dinitrobenzene	ND	172	345	"	"	"	"	
1,3-Dinitrobenzene	ND	172	345	"	"	"	"	
1,4-Dinitrobenzene	ND	172	345	"	"	"	"	
Pyridine	ND	34.5	68.8	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 56 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*65 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*66 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*95 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*56 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*96 %*	*Limits: 39-132 %*	"	"	"	
5237-160328-DC-SED070 (A6C1076-08RE1)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	ND	6.24	12.5	ug/kg dry	4	04/01/16 17:45	EPA 8270D	
Acenaphthylene	**10.9**	6.24	12.5	"	"	"	"	J
Anthracene	**8.48**	6.24	12.5	"	"	"	"	J
Benz(a)anthracene	**49.7**	6.24	12.5	"	"	"	"	
Benzo(a)pyrene	**85.1**	9.39	18.8	"	"	"	"	
Benzo(b)fluoranthene	**97.7**	9.39	18.8	"	"	"	"	M-02
Benzo(k)fluoranthene	**37.1**	9.39	18.8	"	"	"	"	M-02
Benzo(g,h,i)perylene	**66.3**	6.24	12.5	"	"	"	"	
Chrysene	**66.2**	6.24	12.5	"	"	"	"	
Dibenz(a,h)anthracene	**12.2**	6.24	12.5	"	"	"	"	J
Fluoranthene	**74.5**	6.24	12.5	"	"	"	"	
Fluorene	ND	6.24	12.5	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**64.4**	6.24	12.5	"	"	"	"	
1-Methylnaphthalene	ND	12.5	25.0	"	"	"	"	
2-Methylnaphthalene	ND	12.5	25.0	"	"	"	"	
Naphthalene	ND	12.5	25.0	"	"	"	"	
Phenanthrene	**28.6**	6.24	12.5	"	"	"	"	
Pyrene	**91.6**	6.24	12.5	"	"	"	"	
Carbazole	ND	9.39	18.8	"	"	"	"	
Dibenzofuran	ND	6.24	12.5	"	"	"	"	
4-Chloro-3-methylphenol	ND	62.4	125	"	"	"	"	
2-Chlorophenol	ND	31.3	62.4	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED070 (A6C1076-08RE1)			**Matrix: Sediment**		**Batch: 6040004**			
2,4-Dichlorophenol	ND	31.3	62.4	ug/kg dry	4	"	EPA 8270D	
2,4-Dimethylphenol	ND	31.3	62.4	"	"	"	"	
2,4-Dinitrophenol	ND	156	313	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	156	313	"	"	"	"	
2-Methylphenol	ND	15.6	31.3	"	"	"	"	
3+4-Methylphenol(s)	ND	15.6	31.3	"	"	"	"	
2-Nitrophenol	ND	62.4	125	"	"	"	"	
4-Nitrophenol	ND	62.4	125	"	"	"	"	
Pentachlorophenol (PCP)	ND	62.4	125	"	"	"	"	
Phenol	ND	12.5	25.0	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	31.3	62.4	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	31.3	62.4	"	"	"	"	
2,4,5-Trichlorophenol	ND	31.3	62.4	"	"	"	"	
2,4,6-Trichlorophenol	ND	31.3	62.4	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**442**	93.9	188	"	"	"	"	
Butyl benzyl phthalate	ND	62.4	125	"	"	"	"	
Diethylphthalate	ND	62.4	125	"	"	"	"	
Dimethylphthalate	ND	62.4	125	"	"	"	"	
Di-n-butylphthalate	ND	62.4	125	"	"	"	"	
Di-n-octyl phthalate	ND	62.4	125	"	"	"	"	
N-Nitrosodimethylamine	ND	15.6	31.3	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	15.6	31.3	"	"	"	"	
N-Nitrosodiphenylamine	ND	15.6	31.3	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	15.6	31.3	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	15.6	31.3	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	15.6	31.3	"	"	"	"	
Hexachlorobenzene	ND	6.24	12.5	"	"	"	"	
Hexachlorobutadiene	ND	15.6	31.3	"	"	"	"	
Hexachlorocyclopentadiene	ND	31.3	62.4	"	"	"	"	
Hexachloroethane	ND	15.6	31.3	"	"	"	"	
2-Chloronaphthalene	ND	6.24	12.5	"	"	"	"	
1,2-Dichlorobenzene	ND	15.6	31.3	"	"	"	"	
1,3-Dichlorobenzene	ND	15.6	31.3	"	"	"	"	
1,4-Dichlorobenzene	ND	15.6	31.3	"	"	"	"	
1,2,4-Trichlorobenzene	ND	15.6	31.3	"	"	"	"	

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Philip Nerenberg

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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED070 (A6C1076-08RE1)			**Matrix: Sediment**		**Batch: 6040004**			
4-Bromophenyl phenyl ether	ND	15.6	31.3	ug/kg dry	4	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	15.6	31.3	"	"	"	"	
Aniline	ND	31.3	62.4	"	"	"	"	
4-Chloroaniline	ND	15.6	31.3	"	"	"	"	
2-Nitroaniline	ND	125	250	"	"	"	"	
3-Nitroaniline	ND	125	250	"	"	"	"	
4-Nitroaniline	ND	125	250	"	"	"	"	
Nitrobenzene	ND	62.4	125	"	"	"	"	
2,4-Dinitrotoluene	ND	62.4	125	"	"	"	"	
2,6-Dinitrotoluene	ND	62.4	125	"	"	"	"	
Benzoic acid	ND	784	1560	"	"	"	"	
Benzyl alcohol	ND	31.3	62.4	"	"	"	"	
Isophorone	ND	15.6	31.3	"	"	"	"	
Azobenzene (1,2-DPH)	ND	15.6	31.3	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	156	313	"	"	"	"	
3,3'-Dichlorobenzidine	ND	62.4	125	"	"	"	"	
1,2-Dinitrobenzene	ND	156	313	"	"	"	"	
1,3-Dinitrobenzene	ND	156	313	"	"	"	"	
1,4-Dinitrobenzene	ND	156	313	"	"	"	"	
Pyridine	ND	31.3	62.4	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 58 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*66 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*64 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*97 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*58 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*92 %*	*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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**20.1**	8.67	17.4	ug/kg dry	4	04/01/16 17:09	EPA 8270D	
Acenaphthylene	**14.5**	8.67	17.4	"	"	"	"	J
Anthracene	**41.3**	8.67	17.4	"	"	"	"	
Benz(a)anthracene	**239**	8.67	17.4	"	"	"	"	
Benzo(a)pyrene	**380**	13.0	26.1	"	"	"	"	
Benzo(b)fluoranthene	**486**	13.0	26.1	"	"	"	"	M-02
Benzo(k)fluoranthene	**176**	13.0	26.1	"	"	"	"	M-02
Benzo(g,h,i)perylene	**294**	8.67	17.4	"	"	"	"	
Chrysene	**309**	8.67	17.4	"	"	"	"	
Dibenz(a,h)anthracene	**56.4**	8.67	17.4	"	"	"	"	
Fluoranthene	**407**	8.67	17.4	"	"	"	"	
Fluorene	**15.5**	8.67	17.4	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	**289**	8.67	17.4	"	"	"	"	
1-Methylnaphthalene	ND	17.4	34.7	"	"	"	"	
2-Methylnaphthalene	ND	17.4	34.7	"	"	"	"	
Naphthalene	**21.7**	17.4	34.7	"	"	"	"	J
Phenanthrene	**181**	8.67	17.4	"	"	"	"	
Pyrene	**443**	8.67	17.4	"	"	"	"	
Carbazole	**35.3**	13.0	26.1	"	"	"	"	
Dibenzofuran	ND	8.67	17.4	"	"	"	"	
4-Chloro-3-methylphenol	ND	86.7	174	"	"	"	"	
2-Chlorophenol	ND	43.5	86.7	"	"	"	"	
2,4-Dichlorophenol	ND	43.5	86.7	"	"	"	"	
2,4-Dimethylphenol	ND	43.5	86.7	"	"	"	"	
2,4-Dinitrophenol	ND	217	435	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	217	435	"	"	"	"	
2-Methylphenol	ND	21.7	43.5	"	"	"	"	
3+4-Methylphenol(s)	ND	21.7	43.5	"	"	"	"	
2-Nitrophenol	ND	86.7	174	"	"	"	"	
4-Nitrophenol	ND	86.7	174	"	"	"	"	
Pentachlorophenol (PCP)	ND	86.7	174	"	"	"	"	
Phenol	ND	17.4	34.7	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	43.5	86.7	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	43.5	86.7	"	"	"	"	
2,4,5-Trichlorophenol	ND	43.5	86.7	"	"	"	"	
2,4,6-Trichlorophenol	ND	43.5	86.7	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-ethylhexyl)phthalate	ND	130	261	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	86.7	174	"	"	"	"	
Diethylphthalate	ND	86.7	174	"	"	"	"	
Dimethylphthalate	ND	86.7	174	"	"	"	"	
Di-n-butylphthalate	ND	86.7	174	"	"	"	"	
Di-n-octyl phthalate	ND	86.7	174	"	"	"	"	
N-Nitrosodimethylamine	ND	21.7	43.5	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	21.7	43.5	"	"	"	"	
N-Nitrosodiphenylamine	ND	21.7	43.5	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	21.7	43.5	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	21.7	43.5	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	21.7	43.5	"	"	"	"	
Hexachlorobenzene	ND	8.67	17.4	"	"	"	"	
Hexachlorobutadiene	ND	21.7	43.5	"	"	"	"	
Hexachlorocyclopentadiene	ND	43.5	86.7	"	"	"	"	
Hexachloroethane	ND	21.7	43.5	"	"	"	"	
2-Chloronaphthalene	ND	8.67	17.4	"	"	"	"	
1,2-Dichlorobenzene	ND	21.7	43.5	"	"	"	"	
1,3-Dichlorobenzene	ND	21.7	43.5	"	"	"	"	
1,4-Dichlorobenzene	ND	21.7	43.5	"	"	"	"	
1,2,4-Trichlorobenzene	ND	21.7	43.5	"	"	"	"	
4-Bromophenyl phenyl ether	ND	21.7	43.5	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	21.7	43.5	"	"	"	"	
Aniline	ND	43.5	86.7	"	"	"	"	
4-Chloroaniline	ND	21.7	43.5	"	"	"	"	
2-Nitroaniline	ND	174	347	"	"	"	"	
3-Nitroaniline	ND	174	347	"	"	"	"	
4-Nitroaniline	ND	174	347	"	"	"	"	
Nitrobenzene	ND	86.7	174	"	"	"	"	
2,4-Dinitrotoluene	ND	86.7	174	"	"	"	"	
2,6-Dinitrotoluene	ND	86.7	174	"	"	"	"	
Benzoic acid	ND	1090	2170	"	"	"	"	
Benzyl alcohol	ND	43.5	86.7	"	"	"	"	
Isophorone	ND	21.7	43.5	"	"	"	"	
Azobenzene (1,2-DPH)	ND	21.7	43.5	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-Ethylhexyl) adipate	ND	217	435	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	86.7	174	"	"	"	"	
1,2-Dinitrobenzene	ND	217	435	"	"	"	"	
1,3-Dinitrobenzene	ND	217	435	"	"	"	"	
1,4-Dinitrobenzene	ND	217	435	"	"	"	"	
Pyridine	ND	43.5	86.7	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 54 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*62 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*65 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*91 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*58 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*99 %*	*Limits: 39-132 %*	"	"	"	
5237-160328-DC-SED075 (A6C1076-12RE1)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**878**	21.9	44.1	ug/kg dry	10	04/01/16 16:32	EPA 8270D	
Acenaphthylene	**91.3**	21.9	44.1	"	"	"	"	
Anthracene	**1040**	21.9	44.1	"	"	"	"	
Benz(a)anthracene	**6060**	21.9	44.1	"	"	"	"	
Benzo(a)pyrene	**8590**	33.0	66.0	"	"	"	"	
Benzo(b)fluoranthene	**11300**	33.0	66.0	"	"	"	"	M-02
Benzo(k)fluoranthene	**4060**	33.0	66.0	"	"	"	"	M-02
Benzo(g,h,i)perylene	**6270**	21.9	44.1	"	"	"	"	
Chrysene	**6790**	21.9	44.1	"	"	"	"	
Dibenz(a,h)anthracene	**1450**	21.9	44.1	"	"	"	"	
Fluoranthene	**9060**	21.9	44.1	"	"	"	"	
Fluorene	**408**	21.9	44.1	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**6600**	21.9	44.1	"	"	"	"	
1-Methylnaphthalene	**68.3**	44.1	88.0	"	"	"	"	J
2-Methylnaphthalene	**110**	44.1	88.0	"	"	"	"	
Naphthalene	**269**	44.1	88.0	"	"	"	"	B-02
Phenanthrene	**4290**	21.9	44.1	"	"	"	"	
Pyrene	**9040**	21.9	44.1	"	"	"	"	
Carbazole	**861**	33.0	66.0	"	"	"	"	
Dibenzofuran	**166**	21.9	44.1	"	"	"	"	
4-Chloro-3-methylphenol	ND	219	441	"	"	"	"	
2-Chlorophenol	ND	110	219	"	"	"	"	
2,4-Dichlorophenol	ND	110	219	"	"	"	"	

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Philip Nerenberg

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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED075 (A6C1076-12RE1)			**Matrix: Sediment**		**Batch: 6040004**			
2,4-Dimethylphenol	ND	110	219	ug/kg dry	10	"	EPA 8270D	
2,4-Dinitrophenol	ND	549	1100	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	549	1100	"	"	"	"	
2-Methylphenol	ND	54.9	110	"	"	"	"	
3+4-Methylphenol(s)	ND	54.9	110	"	"	"	"	
2-Nitrophenol	ND	219	441	"	"	"	"	
4-Nitrophenol	ND	219	441	"	"	"	"	
Pentachlorophenol (PCP)	ND	219	441	"	"	"	"	
Phenol	ND	44.1	88.0	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	110	219	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	110	219	"	"	"	"	
2,4,5-Trichlorophenol	ND	110	219	"	"	"	"	
2,4,6-Trichlorophenol	ND	110	219	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	330	660	"	"	"	"	
Butyl benzyl phthalate	ND	219	441	"	"	"	"	
Diethylphthalate	ND	219	441	"	"	"	"	
Dimethylphthalate	ND	219	441	"	"	"	"	
Di-n-butylphthalate	ND	219	441	"	"	"	"	
Di-n-octyl phthalate	ND	219	441	"	"	"	"	
N-Nitrosodimethylamine	ND	54.9	110	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	54.9	110	"	"	"	"	
N-Nitrosodiphenylamine	ND	54.9	110	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	54.9	110	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	54.9	110	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	54.9	110	"	"	"	"	
Hexachlorobenzene	ND	21.9	44.1	"	"	"	"	
Hexachlorobutadiene	ND	54.9	110	"	"	"	"	
Hexachlorocyclopentadiene	ND	110	219	"	"	"	"	
Hexachloroethane	ND	54.9	110	"	"	"	"	
2-Chloronaphthalene	ND	21.9	44.1	"	"	"	"	
1,2-Dichlorobenzene	ND	54.9	110	"	"	"	"	
1,3-Dichlorobenzene	ND	54.9	110	"	"	"	"	
1,4-Dichlorobenzene	ND	54.9	110	"	"	"	"	
1,2,4-Trichlorobenzene	ND	54.9	110	"	"	"	"	
4-Bromophenyl phenyl ether	ND	54.9	110	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED075 (A6C1076-12RE1)			**Matrix: Sediment**		**Batch: 6040004**			
4-Chlorophenyl phenyl ether	ND	54.9	110	ug/kg dry	10	"	EPA 8270D	
Aniline	ND	110	219	"	"	"	"	
4-Chloroaniline	ND	54.9	110	"	"	"	"	
2-Nitroaniline	ND	441	880	"	"	"	"	
3-Nitroaniline	ND	441	880	"	"	"	"	
4-Nitroaniline	ND	441	880	"	"	"	"	
Nitrobenzene	ND	219	441	"	"	"	"	
2,4-Dinitrotoluene	ND	219	441	"	"	"	"	
2,6-Dinitrotoluene	ND	219	441	"	"	"	"	
Benzoic acid	ND	2760	5490	"	"	"	"	
Benzyl alcohol	ND	110	219	"	"	"	"	
Isophorone	ND	54.9	110	"	"	"	"	
Azobenzene (1,2-DPH)	ND	54.9	110	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	549	1100	"	"	"	"	
3,3'-Dichlorobenzidine	ND	219	441	"	"	"	"	
1,2-Dinitrobenzene	ND	549	1100	"	"	"	"	
1,3-Dinitrobenzene	ND	549	1100	"	"	"	"	
1,4-Dinitrobenzene	ND	549	1100	"	"	"	"	
Pyridine	ND	110	219	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 73 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*73 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*74 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*82 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*73 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*95 %*	*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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077 (A6C1076-14RE1)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**16.0**	2.07	4.15	ug/kg dry	1	04/08/16 13:27	EPA 8270D	
Acenaphthylene	**5.37**	2.07	4.15	"	"	"	"	
Anthracene	**19.5**	2.07	4.15	"	"	"	"	
Benz(a)anthracene	**108**	2.07	4.15	"	"	"	"	
Benzo(a)pyrene	**162**	3.11	6.21	"	"	"	"	
Benzo(b)fluoranthene	**205**	3.11	6.21	"	"	"	"	M-02
Benzo(k)fluoranthene	**67.3**	3.11	6.21	"	"	"	"	M-02
Benzo(g,h,i)perylene	**129**	2.07	4.15	"	"	"	"	
Chrysene	**131**	2.07	4.15	"	"	"	"	
Dibenz(a,h)anthracene	**23.1**	2.07	4.15	"	"	"	"	
Fluoranthene	**187**	2.07	4.15	"	"	"	"	
Fluorene	**9.11**	2.07	4.15	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**120**	2.07	4.15	"	"	"	"	
1-Methylnaphthalene	ND	4.15	8.28	"	"	"	"	
2-Methylnaphthalene	ND	4.15	8.28	"	"	"	"	
Naphthalene	**10.9**	4.15	8.28	"	"	"	"	B-02
Phenanthrene	**89.1**	2.07	4.15	"	"	"	"	
Pyrene	**202**	2.07	4.15	"	"	"	"	
Carbazole	**14.9**	3.11	6.21	"	"	"	"	
Dibenzofuran	**4.23**	2.07	4.15	"	"	"	"	
4-Chloro-3-methylphenol	ND	20.7	41.5	"	"	"	"	
2-Chlorophenol	ND	10.4	20.7	"	"	"	"	
2,4-Dichlorophenol	ND	10.4	20.7	"	"	"	"	
2,4-Dimethylphenol	ND	10.4	20.7	"	"	"	"	
2,4-Dinitrophenol	ND	51.7	104	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	51.7	104	"	"	"	"	
2-Methylphenol	ND	5.17	10.4	"	"	"	"	
3+4-Methylphenol(s)	ND	5.17	10.4	"	"	"	"	
2-Nitrophenol	ND	20.7	41.5	"	"	"	"	
4-Nitrophenol	ND	20.7	41.5	"	"	"	"	
Pentachlorophenol (PCP)	ND	20.7	41.5	"	"	"	"	
Phenol	ND	4.15	8.28	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	10.4	20.7	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	10.4	20.7	"	"	"	"	
2,4,5-Trichlorophenol	ND	10.4	20.7	"	"	"	"	
2,4,6-Trichlorophenol	ND	10.4	20.7	"	"	"	"	

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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
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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077 (A6C1076-14RE1)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-ethylhexyl)phthalate	ND	31.1	62.1	ug/kg dry	1	"	EPA 8270D	
Butyl benzyl phthalate	ND	20.7	41.5	"	"	"	"	
Diethylphthalate	ND	20.7	41.5	"	"	"	"	
Dimethylphthalate	ND	20.7	41.5	"	"	"	"	
Di-n-butylphthalate	ND	20.7	41.5	"	"	"	"	
Di-n-octyl phthalate	ND	20.7	41.5	"	"	"	"	
N-Nitrosodimethylamine	ND	5.17	10.4	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	5.17	10.4	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.17	10.4	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	5.17	10.4	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	5.17	10.4	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	5.17	10.4	"	"	"	"	
Hexachlorobenzene	ND	2.07	4.15	"	"	"	"	
Hexachlorobutadiene	ND	5.17	10.4	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.4	20.7	"	"	"	"	
Hexachloroethane	ND	5.17	10.4	"	"	"	"	
2-Chloronaphthalene	ND	2.07	4.15	"	"	"	"	
1,2-Dichlorobenzene	ND	5.17	10.4	"	"	"	"	
1,3-Dichlorobenzene	ND	5.17	10.4	"	"	"	"	
1,4-Dichlorobenzene	ND	5.17	10.4	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.17	10.4	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.17	10.4	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.17	10.4	"	"	"	"	
Aniline	ND	10.4	20.7	"	"	"	"	
4-Chloroaniline	ND	5.17	10.4	"	"	"	"	
2-Nitroaniline	ND	41.5	82.8	"	"	"	"	
3-Nitroaniline	ND	41.5	82.8	"	"	"	"	
4-Nitroaniline	ND	41.5	82.8	"	"	"	"	
Nitrobenzene	ND	20.7	41.5	"	"	"	"	
2,4-Dinitrotoluene	ND	20.7	41.5	"	"	"	"	
2,6-Dinitrotoluene	ND	20.7	41.5	"	"	"	"	
Benzoic acid	ND	259	517	"	"	"	"	
Benzyl alcohol	ND	10.4	20.7	"	"	"	"	
Isophorone	ND	5.17	10.4	"	"	"	"	
Azobenzene (1,2-DPH)	ND	5.17	10.4	"	"	"	"	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077 (A6C1076-14RE1)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-Ethylhexyl) adipate	ND	51.7	104	ug/kg dry	1	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	20.7	41.5	"	"	"	"	
1,2-Dinitrobenzene	ND	51.7	104	"	"	"	"	
1,3-Dinitrobenzene	ND	51.7	104	"	"	"	"	
1,4-Dinitrobenzene	ND	51.7	104	"	"	"	"	
Pyridine	ND	10.4	20.7	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 83 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*87 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*80 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*90 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*77 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*95 %*	*Limits: 39-132 %*	"	"	"	
5237-160328-DC-SED077D (A6C1076-16RE1)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**5.85**	2.02	4.06	ug/kg dry	1	04/08/16 14:06	EPA 8270D	
Acenaphthylene	**2.14**	2.02	4.06	"	"	"	"	J
Anthracene	**7.71**	2.02	4.06	"	"	"	"	
Benz(a)anthracene	**46.1**	2.02	4.06	"	"	"	"	
Benzo(a)pyrene	**68.1**	3.04	6.08	"	"	"	"	
Benzo(b)fluoranthene	**88.5**	3.04	6.08	"	"	"	"	M-02
Benzo(k)fluoranthene	**29.4**	3.04	6.08	"	"	"	"	M-02
Benzo(g,h,i)perylene	**56.1**	2.02	4.06	"	"	"	"	
Chrysene	**56.9**	2.02	4.06	"	"	"	"	
Dibenz(a,h)anthracene	**11.3**	2.02	4.06	"	"	"	"	
Fluoranthene	**73.9**	2.02	4.06	"	"	"	"	
Fluorene	**3.18**	2.02	4.06	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	**52.9**	2.02	4.06	"	"	"	"	
1-Methylnaphthalene	ND	4.06	8.10	"	"	"	"	
2-Methylnaphthalene	ND	4.06	8.10	"	"	"	"	
Naphthalene	ND	8.10	8.10	"	"	"	"	
Phenanthrene	**33.0**	2.02	4.06	"	"	"	"	
Pyrene	**77.4**	2.02	4.06	"	"	"	"	
Carbazole	**6.62**	3.04	6.08	"	"	"	"	
Dibenzofuran	ND	2.02	4.06	"	"	"	"	
4-Chloro-3-methylphenol	ND	20.2	40.6	"	"	"	"	
2-Chlorophenol	ND	10.1	20.2	"	"	"	"	

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Philip Nerenberg

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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077D (A6C1076-16RE1)			**Matrix: Sediment**		**Batch: 6040004**			
2,4-Dichlorophenol	ND	10.1	20.2	ug/kg dry	1	"	EPA 8270D	
2,4-Dimethylphenol	ND	10.1	20.2	"	"	"	"	
2,4-Dinitrophenol	ND	50.6	101	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	50.6	101	"	"	"	"	
2-Methylphenol	ND	5.06	10.1	"	"	"	"	
3+4-Methylphenol(s)	ND	5.06	10.1	"	"	"	"	
2-Nitrophenol	ND	20.2	40.6	"	"	"	"	
4-Nitrophenol	ND	20.2	40.6	"	"	"	"	
Pentachlorophenol (PCP)	ND	20.2	40.6	"	"	"	"	
Phenol	ND	8.10	8.10	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	10.1	20.2	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	10.1	20.2	"	"	"	"	
2,4,5-Trichlorophenol	ND	10.1	20.2	"	"	"	"	
2,4,6-Trichlorophenol	ND	10.1	20.2	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**31.9**	30.4	60.8	"	"	"	"	J
Butyl benzyl phthalate	ND	20.2	40.6	"	"	"	"	
Diethylphthalate	ND	20.2	40.6	"	"	"	"	
Dimethylphthalate	ND	20.2	40.6	"	"	"	"	
Di-n-butylphthalate	ND	20.2	40.6	"	"	"	"	
Di-n-octyl phthalate	ND	20.2	40.6	"	"	"	"	
N-Nitrosodimethylamine	ND	5.06	10.1	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	5.06	10.1	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.06	10.1	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	5.06	10.1	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	5.06	10.1	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	5.06	10.1	"	"	"	"	
Hexachlorobenzene	ND	2.02	4.06	"	"	"	"	
Hexachlorobutadiene	ND	5.06	10.1	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.1	20.2	"	"	"	"	
Hexachloroethane	ND	5.06	10.1	"	"	"	"	
2-Chloronaphthalene	ND	2.02	4.06	"	"	"	"	
1,2-Dichlorobenzene	ND	5.06	10.1	"	"	"	"	
1,3-Dichlorobenzene	ND	5.06	10.1	"	"	"	"	
1,4-Dichlorobenzene	ND	5.06	10.1	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.06	10.1	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077D (A6C1076-16RE1)			**Matrix: Sediment**		**Batch: 6040004**			
4-Bromophenyl phenyl ether	ND	5.06	10.1	ug/kg dry	1	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	5.06	10.1	"	"	"	"	
Aniline	ND	10.1	20.2	"	"	"	"	
4-Chloroaniline	ND	5.06	10.1	"	"	"	"	
2-Nitroaniline	ND	40.6	81.0	"	"	"	"	
3-Nitroaniline	ND	40.6	81.0	"	"	"	"	
4-Nitroaniline	ND	40.6	81.0	"	"	"	"	
Nitrobenzene	ND	20.2	40.6	"	"	"	"	
2,4-Dinitrotoluene	ND	20.2	40.6	"	"	"	"	
2,6-Dinitrotoluene	ND	20.2	40.6	"	"	"	"	
Benzoic acid	ND	254	506	"	"	"	"	
Benzyl alcohol	ND	10.1	20.2	"	"	"	"	
Isophorone	ND	5.06	10.1	"	"	"	"	
Azobenzene (1,2-DPH)	ND	5.06	10.1	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	50.6	101	"	"	"	"	
3,3'-Dichlorobenzidine	ND	20.2	40.6	"	"	"	"	
1,2-Dinitrobenzene	ND	50.6	101	"	"	"	"	
1,3-Dinitrobenzene	ND	50.6	101	"	"	"	"	
1,4-Dinitrobenzene	ND	50.6	101	"	"	"	"	
Pyridine	ND	10.1	20.2	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 106 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*108 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*107 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*115 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*103 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*129 %*	*Limits: 39-132 %*	"	"	"	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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AMENDED REPORT

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503-718-2323 Phone
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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**35.2**	8.71	17.5	ug/kg dry	4	04/01/16 19:35	EPA 8270D	
Acenaphthylene	ND	8.71	17.5	"	"	"	"	
Anthracene	**29.1**	8.71	17.5	"	"	"	"	
Benz(a)anthracene	**189**	8.71	17.5	"	"	"	"	
Benzo(a)pyrene	**290**	13.1	26.2	"	"	"	"	
Benzo(b)fluoranthene	**383**	13.1	26.2	"	"	"	"	M-02
Benzo(k)fluoranthene	**144**	13.1	26.2	"	"	"	"	M-02
Benzo(g,h,i)perylene	**204**	8.71	17.5	"	"	"	"	
Chrysene	**229**	8.71	17.5	"	"	"	"	
Dibenz(a,h)anthracene	**41.0**	8.71	17.5	"	"	"	"	
Fluoranthene	**303**	8.71	17.5	"	"	"	"	
Fluorene	**27.5**	8.71	17.5	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**214**	8.71	17.5	"	"	"	"	
1-Methylnaphthalene	ND	17.5	34.9	"	"	"	"	
2-Methylnaphthalene	ND	17.5	34.9	"	"	"	"	
Naphthalene	ND	17.5	34.9	"	"	"	"	
Phenanthrene	**136**	8.71	17.5	"	"	"	"	
Pyrene	**301**	8.71	17.5	"	"	"	"	
Carbazole	**29.9**	13.1	26.2	"	"	"	"	
Dibenzofuran	**16.9**	8.71	17.5	"	"	"	"	J
4-Chloro-3-methylphenol	ND	87.1	175	"	"	"	"	
2-Chlorophenol	ND	43.7	87.1	"	"	"	"	
2,4-Dichlorophenol	ND	43.7	87.1	"	"	"	"	
2,4-Dimethylphenol	ND	43.7	87.1	"	"	"	"	
2,4-Dinitrophenol	ND	218	437	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	218	437	"	"	"	"	
2-Methylphenol	ND	21.8	43.7	"	"	"	"	
3+4-Methylphenol(s)	ND	21.8	43.7	"	"	"	"	
2-Nitrophenol	ND	87.1	175	"	"	"	"	
4-Nitrophenol	ND	87.1	175	"	"	"	"	
Pentachlorophenol (PCP)	ND	87.1	175	"	"	"	"	
Phenol	ND	17.5	34.9	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	43.7	87.1	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	43.7	87.1	"	"	"	"	
2,4,5-Trichlorophenol	ND	43.7	87.1	"	"	"	"	
2,4,6-Trichlorophenol	ND	43.7	87.1	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-ethylhexyl)phthalate	ND	131	262	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	87.1	175	"	"	"	"	
Diethylphthalate	ND	87.1	175	"	"	"	"	
Dimethylphthalate	ND	87.1	175	"	"	"	"	
Di-n-butylphthalate	ND	87.1	175	"	"	"	"	
Di-n-octyl phthalate	ND	87.1	175	"	"	"	"	
N-Nitrosodimethylamine	ND	21.8	43.7	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	21.8	43.7	"	"	"	"	
N-Nitrosodiphenylamine	ND	21.8	43.7	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	21.8	43.7	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	21.8	43.7	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	21.8	43.7	"	"	"	"	
Hexachlorobenzene	ND	8.71	17.5	"	"	"	"	
Hexachlorobutadiene	ND	21.8	43.7	"	"	"	"	
Hexachlorocyclopentadiene	ND	43.7	87.1	"	"	"	"	
Hexachloroethane	ND	21.8	43.7	"	"	"	"	
2-Chloronaphthalene	ND	8.71	17.5	"	"	"	"	
1,2-Dichlorobenzene	ND	21.8	43.7	"	"	"	"	
1,3-Dichlorobenzene	ND	21.8	43.7	"	"	"	"	
1,4-Dichlorobenzene	ND	21.8	43.7	"	"	"	"	
1,2,4-Trichlorobenzene	ND	21.8	43.7	"	"	"	"	
4-Bromophenyl phenyl ether	ND	21.8	43.7	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	21.8	43.7	"	"	"	"	
Aniline	ND	43.7	87.1	"	"	"	"	
4-Chloroaniline	ND	21.8	43.7	"	"	"	"	
2-Nitroaniline	ND	175	349	"	"	"	"	
3-Nitroaniline	ND	175	349	"	"	"	"	
4-Nitroaniline	ND	175	349	"	"	"	"	
Nitrobenzene	ND	87.1	175	"	"	"	"	
2,4-Dinitrotoluene	ND	87.1	175	"	"	"	"	
2,6-Dinitrotoluene	ND	87.1	175	"	"	"	"	
Benzoic acid	ND	1090	2180	"	"	"	"	
Benzyl alcohol	ND	43.7	87.1	"	"	"	"	
Isophorone	ND	21.8	43.7	"	"	"	"	
Azobenzene (1,2-DPH)	ND	21.8	43.7	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-Ethylhexyl) adipate	ND	218	437	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	87.1	175	"	"	"	"	
1,2-Dinitrobenzene	ND	218	437	"	"	"	"	
1,3-Dinitrobenzene	ND	218	437	"	"	"	"	
1,4-Dinitrobenzene	ND	218	437	"	"	"	"	
Pyridine	ND	43.7	87.1	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 57 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*60 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*62 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*92 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*56 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*101 %*	*Limits: 39-132 %*	"	"	"	
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**417**	6.28	12.6	ug/kg dry	4	04/04/16 11:55	EPA 8270D	
Acenaphthylene	**88.5**	6.28	12.6	"	"	"	"	
Anthracene	**152**	6.28	12.6	"	"	"	"	
Benz(a)anthracene	**394**	6.28	12.6	"	"	"	"	
Benzo(a)pyrene	**431**	9.45	18.9	"	"	"	"	
Benzo(b)fluoranthene	**433**	9.45	18.9	"	"	"	"	M-02
Benzo(k)fluoranthene	**154**	9.45	18.9	"	"	"	"	M-02
Benzo(g,h,i)perylene	**341**	6.28	12.6	"	"	"	"	
Chrysene	**452**	6.28	12.6	"	"	"	"	
Dibenz(a,h)anthracene	**49.7**	6.28	12.6	"	"	"	"	
Fluoranthene	**1360**	6.28	12.6	"	"	"	"	
Fluorene	**145**	6.28	12.6	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**288**	6.28	12.6	"	"	"	"	
1-Methylnaphthalene	ND	12.6	25.2	"	"	"	"	
2-Methylnaphthalene	**19.3**	12.6	25.2	"	"	"	"	J
Naphthalene	**105**	12.6	25.2	"	"	"	"	B-02
Phenanthrene	**387**	6.28	12.6	"	"	"	"	
Pyrene	**1740**	6.28	12.6	"	"	"	"	
Carbazole	**10.4**	9.45	18.9	"	"	"	"	J
Dibenzofuran	ND	6.28	12.6	"	"	"	"	
4-Chloro-3-methylphenol	ND	62.8	126	"	"	"	"	
2-Chlorophenol	ND	31.5	62.8	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6040004**			
2,4-Dichlorophenol	ND	31.5	62.8	ug/kg dry	4	"	EPA 8270D	
2,4-Dimethylphenol	ND	31.5	62.8	"	"	"	"	
2,4-Dinitrophenol	ND	157	315	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	157	315	"	"	"	"	
2-Methylphenol	ND	15.7	31.5	"	"	"	"	
3+4-Methylphenol(s)	ND	15.7	31.5	"	"	"	"	
2-Nitrophenol	ND	62.8	126	"	"	"	"	
4-Nitrophenol	ND	62.8	126	"	"	"	"	
Pentachlorophenol (PCP)	ND	62.8	126	"	"	"	"	
Phenol	ND	12.6	25.2	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	31.5	62.8	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	31.5	62.8	"	"	"	"	
2,4,5-Trichlorophenol	ND	31.5	62.8	"	"	"	"	
2,4,6-Trichlorophenol	ND	31.5	62.8	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	94.5	189	"	"	"	"	
Butyl benzyl phthalate	ND	62.8	126	"	"	"	"	
Diethylphthalate	ND	62.8	126	"	"	"	"	
Dimethylphthalate	ND	62.8	126	"	"	"	"	
Di-n-butylphthalate	ND	62.8	126	"	"	"	"	
Di-n-octyl phthalate	ND	62.8	126	"	"	"	"	
N-Nitrosodimethylamine	ND	15.7	31.5	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	15.7	31.5	"	"	"	"	
N-Nitrosodiphenylamine	ND	15.7	31.5	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	15.7	31.5	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	15.7	31.5	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	15.7	31.5	"	"	"	"	
Hexachlorobenzene	ND	6.28	12.6	"	"	"	"	
Hexachlorobutadiene	ND	15.7	31.5	"	"	"	"	
Hexachlorocyclopentadiene	ND	31.5	62.8	"	"	"	"	
Hexachloroethane	ND	15.7	31.5	"	"	"	"	
2-Chloronaphthalene	ND	6.28	12.6	"	"	"	"	
1,2-Dichlorobenzene	ND	15.7	31.5	"	"	"	"	
1,3-Dichlorobenzene	ND	15.7	31.5	"	"	"	"	
1,4-Dichlorobenzene	ND	15.7	31.5	"	"	"	"	
1,2,4-Trichlorobenzene	ND	15.7	31.5	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6040004**			
4-Bromophenyl phenyl ether	ND	15.7	31.5	ug/kg dry	4	"	EPA 8270D	
4-Chlorophenyl phenyl ether	ND	15.7	31.5	"	"	"	"	
Aniline	ND	31.5	62.8	"	"	"	"	
4-Chloroaniline	ND	15.7	31.5	"	"	"	"	
2-Nitroaniline	ND	126	252	"	"	"	"	
3-Nitroaniline	ND	126	252	"	"	"	"	
4-Nitroaniline	ND	126	252	"	"	"	"	
Nitrobenzene	ND	62.8	126	"	"	"	"	
2,4-Dinitrotoluene	ND	62.8	126	"	"	"	"	
2,6-Dinitrotoluene	ND	62.8	126	"	"	"	"	
Benzoic acid	ND	789	1570	"	"	"	"	
Benzyl alcohol	ND	31.5	62.8	"	"	"	"	
Isophorone	ND	15.7	31.5	"	"	"	"	
Azobenzene (1,2-DPH)	ND	15.7	31.5	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	157	315	"	"	"	"	
3,3'-Dichlorobenzidine	ND	62.8	126	"	"	"	"	
1,2-Dinitrobenzene	ND	157	315	"	"	"	"	
1,3-Dinitrobenzene	ND	157	315	"	"	"	"	
1,4-Dinitrobenzene	ND	157	315	"	"	"	"	
Pyridine	ND	31.5	62.8	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 84 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*89 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*83 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*93 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*77 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*100 %*	*Limits: 39-132 %*	"	"	"	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6040004**			
Acenaphthene	**1800**	6.68	13.4	ug/kg dry	4	04/01/16 20:12	EPA 8270D	
Acenaphthylene	**24.4**	6.68	13.4	"	"	"	"	
Anthracene	**176**	6.68	13.4	"	"	"	"	
Benz(a)anthracene	**239**	6.68	13.4	"	"	"	"	
Benzo(a)pyrene	**262**	10.0	20.1	"	"	"	"	
Benzo(b)fluoranthene	**315**	10.0	20.1	"	"	"	"	M-02
Benzo(k)fluoranthene	**117**	10.0	20.1	"	"	"	"	M-02
Benzo(g,h,i)perylene	**211**	6.68	13.4	"	"	"	"	
Chrysene	**291**	6.68	13.4	"	"	"	"	
Dibenz(a,h)anthracene	**32.1**	6.68	13.4	"	"	"	"	
Fluoranthene	**1300**	6.68	13.4	"	"	"	"	
Fluorene	**530**	6.68	13.4	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**189**	6.68	13.4	"	"	"	"	
1-Methylnaphthalene	**83.4**	13.4	26.8	"	"	"	"	
2-Methylnaphthalene	ND	13.4	26.8	"	"	"	"	
Naphthalene	**25.8**	13.4	26.8	"	"	"	"	J
Phenanthrene	**315**	6.68	13.4	"	"	"	"	
Pyrene	**2480**	6.68	13.4	"	"	"	"	
Carbazole	**24.7**	10.0	20.1	"	"	"	"	
Dibenzofuran	**171**	6.68	13.4	"	"	"	"	
4-Chloro-3-methylphenol	ND	66.8	134	"	"	"	"	
2-Chlorophenol	ND	33.5	66.8	"	"	"	"	
2,4-Dichlorophenol	ND	33.5	66.8	"	"	"	"	
2,4-Dimethylphenol	ND	33.5	66.8	"	"	"	"	
2,4-Dinitrophenol	ND	167	335	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	167	335	"	"	"	"	
2-Methylphenol	ND	16.7	33.5	"	"	"	"	
3+4-Methylphenol(s)	ND	16.7	33.5	"	"	"	"	
2-Nitrophenol	ND	66.8	134	"	"	"	"	
4-Nitrophenol	ND	66.8	134	"	"	"	"	
Pentachlorophenol (PCP)	ND	66.8	134	"	"	"	"	
Phenol	**14.5**	13.4	26.8	"	"	"	"	J
2,3,4,6-Tetrachlorophenol	ND	33.5	66.8	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	33.5	66.8	"	"	"	"	
2,4,5-Trichlorophenol	ND	33.5	66.8	"	"	"	"	
2,4,6-Trichlorophenol	ND	33.5	66.8	"	"	"	"	

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AMENDED REPORT

12232 S.W. Garden Place
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503-718-2323 Phone
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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-ethylhexyl)phthalate	ND	100	201	ug/kg dry	4	"	EPA 8270D	
Butyl benzyl phthalate	ND	66.8	134	"	"	"	"	
Diethylphthalate	ND	66.8	134	"	"	"	"	
Dimethylphthalate	ND	66.8	134	"	"	"	"	
Di-n-butylphthalate	ND	66.8	134	"	"	"	"	
Di-n-octyl phthalate	ND	66.8	134	"	"	"	"	
N-Nitrosodimethylamine	ND	16.7	33.5	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	16.7	33.5	"	"	"	"	
N-Nitrosodiphenylamine	ND	33.5	33.5	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	16.7	33.5	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	16.7	33.5	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	16.7	33.5	"	"	"	"	
Hexachlorobenzene	ND	6.68	13.4	"	"	"	"	
Hexachlorobutadiene	ND	16.7	33.5	"	"	"	"	
Hexachlorocyclopentadiene	ND	33.5	66.8	"	"	"	"	
Hexachloroethane	ND	16.7	33.5	"	"	"	"	
2-Chloronaphthalene	ND	6.68	13.4	"	"	"	"	
1,2-Dichlorobenzene	ND	16.7	33.5	"	"	"	"	
1,3-Dichlorobenzene	ND	16.7	33.5	"	"	"	"	
1,4-Dichlorobenzene	ND	16.7	33.5	"	"	"	"	
1,2,4-Trichlorobenzene	ND	16.7	33.5	"	"	"	"	
4-Bromophenyl phenyl ether	ND	16.7	33.5	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	16.7	33.5	"	"	"	"	
Aniline	ND	33.5	66.8	"	"	"	"	
4-Chloroaniline	ND	16.7	33.5	"	"	"	"	
2-Nitroaniline	ND	134	268	"	"	"	"	
3-Nitroaniline	ND	134	268	"	"	"	"	
4-Nitroaniline	ND	134	268	"	"	"	"	
Nitrobenzene	ND	66.8	134	"	"	"	"	
2,4-Dinitrotoluene	ND	134	134	"	"	"	"	
2,6-Dinitrotoluene	ND	66.8	134	"	"	"	"	
Benzoic acid	ND	838	1670	"	"	"	"	
Benzyl alcohol	ND	33.5	66.8	"	"	"	"	
Isophorone	ND	16.7	33.5	"	"	"	"	
Azobenzene (1,2-DPH)	ND	16.7	33.5	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6040004**			
Bis(2-Ethylhexyl) adipate	ND	167	335	ug/kg dry	4	"	EPA 8270D	
3,3'-Dichlorobenzidine	ND	66.8	134	"	"	"	"	Q-42
1,2-Dinitrobenzene	ND	167	335	"	"	"	"	
1,3-Dinitrobenzene	ND	167	335	"	"	"	"	
1,4-Dinitrobenzene	ND	167	335	"	"	"	"	
Pyridine	ND	33.5	66.8	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 73 %*	*Limits: 37-122 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*72 %*	*Limits: 44-115 %*	"	"	"	
Phenol-d6 (Surr)			*73 %*	*Limits: 33-122 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*100 %*	*Limits: 54-127 %*	"	"	"	
2-Fluorophenol (Surr)			*69 %*	*Limits: 35-115 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*104 %*	*Limits: 39-132 %*	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**196**	63.7	63.7	ug/kg dry	4	04/04/16 10:41	GC/MS Scan	Q-42
C1-Fluoranthrenes/Pyrenes	**179**	63.7	63.7	"	"	"	"	Q-42
C1-Fluorenes	ND	63.7	63.7	"	"	"	"	
C1-Phenanthrenes/Anthracenes	**111**	63.7	63.7	"	"	"	"	Q-42
C2-Chrysenes/Benz(a)anthracenes	**104**	63.7	63.7	"	"	"	"	Q-42
C2-Fluorenes	ND	63.7	63.7	"	"	"	"	
C2-Naphthalenes	ND	63.7	63.7	"	"	"	"	
C2-Phenanthrenes/Anthracenes	**87.9**	63.7	63.7	"	"	"	"	Q-42
C3-Chrysenes/Benz(a)anthracenes	**65.9**	63.7	63.7	"	"	"	"	Q-42
C3-Fluorenes	ND	63.7	63.7	"	"	"	"	
C3-Naphthalenes	ND	63.7	63.7	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	63.7	63.7	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	127	127	"	"	"	"	
C4-Naphthalenes	ND	63.7	63.7	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	127	127	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 62 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*91 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**360**	84.7	84.7	ug/kg dry	4	04/01/16 18:22	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**434**	84.7	84.7	"	"	"	"	
C1-Fluorenes	ND	102	102	"	"	"	"	R-02
C1-Phenanthrenes/Anthracenes	**212**	84.7	84.7	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	**126**	84.7	84.7	"	"	"	"	
C2-Fluorenes	ND	84.7	84.7	"	"	"	"	
C2-Naphthalenes	ND	84.7	84.7	"	"	"	"	
C2-Phenanthrenes/Anthracenes	**135**	84.7	84.7	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	**109**	84.7	84.7	"	"	"	"	
C3-Fluorenes	ND	84.7	84.7	"	"	"	"	
C3-Naphthalenes	ND	84.7	84.7	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	84.7	84.7	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	169	169	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6040004**			
C4-Naphthalenes	ND	84.7	84.7	ug/kg dry	4	"	GC/MS Scan	
C4-Phenanthrenes/Anthracenes	ND	169	169	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 84 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*90 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**141**	68.9	68.9	ug/kg dry	4	04/01/16 18:59	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**162**	68.9	68.9	"	"	"	"	
C1-Fluorenes	ND	68.9	68.9	"	"	"	"	
C1-Phenanthrenes/Anthracenes	**76.8**	68.9	68.9	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	68.9	68.9	"	"	"	"	
C2-Fluorenes	ND	68.9	68.9	"	"	"	"	
C2-Naphthalenes	ND	68.9	68.9	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	68.9	68.9	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	68.9	68.9	"	"	"	"	
C3-Fluorenes	ND	68.9	68.9	"	"	"	"	
C3-Naphthalenes	ND	68.9	68.9	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	68.9	68.9	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	68.9	138	"	"	"	"	
C4-Naphthalenes	ND	68.9	68.9	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	138	138	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 78 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*90 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED070 (A6C1076-08RE1)			**Matrix: Sediment**		**Batch: 6040004**			**R-04**
C1-Chrysenes/Benz(a)anthracenes	ND	62.6	62.6	ug/kg dry	4	04/01/16 17:45	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	ND	62.6	62.6	"	"	"	"	
C1-Fluorenes	ND	62.6	62.6	"	"	"	"	
C1-Phenanthrenes/Anthracenes	ND	62.6	62.6	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	62.6	62.6	"	"	"	"	
C2-Fluorenes	ND	62.6	62.6	"	"	"	"	
C2-Naphthalenes	ND	62.6	62.6	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	62.6	62.6	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	62.6	62.6	"	"	"	"	
C3-Fluorenes	ND	62.6	62.6	"	"	"	"	
C3-Naphthalenes	ND	62.6	62.6	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED070 (A6C1076-08RE1)			**Matrix: Sediment**		**Batch: 6040004**			**R-04**
C3-Phenanthrenes/Anthracenes	ND	62.6	62.6	ug/kg dry	4	"	GC/MS Scan	
C4-Chrysenes/Benz(a)anthracenes	ND	125	125	"	"	"	"	
C4-Naphthalenes	ND	62.6	62.6	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	125	125	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 81 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*94 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**149**	86.9	86.9	ug/kg dry	4	04/01/16 17:09	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**169**	86.9	86.9	"	"	"	"	
C1-Fluorenes	ND	156	156	"	"	"	"	R-02
C1-Phenanthrenes/Anthracenes	**92.5**	86.9	86.9	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	86.9	86.9	"	"	"	"	
C2-Fluorenes	ND	86.9	86.9	"	"	"	"	
C2-Naphthalenes	ND	86.9	86.9	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	86.9	86.9	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	**96.3**	86.9	86.9	"	"	"	"	
C3-Fluorenes	ND	86.9	86.9	"	"	"	"	
C3-Naphthalenes	ND	86.9	86.9	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	86.9	86.9	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	86.9	174	"	"	"	"	
C4-Naphthalenes	ND	86.9	86.9	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	174	174	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 74 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*87 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED075 (A6C1076-12RE1)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**3330**	220	220	ug/kg dry	10	04/01/16 16:32	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**3780**	220	220	"	"	"	"	
C1-Fluorenes	**308**	220	220	"	"	"	"	
C1-Phenanthrenes/Anthracenes	**1950**	220	220	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	**1250**	220	220	"	"	"	"	
C2-Fluorenes	ND	220	220	"	"	"	"	
C2-Naphthalenes	ND	220	220	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED075 (A6C1076-12RE1)			**Matrix: Sediment**		**Batch: 6040004**			
C2-Phenanthrenes/Anthracenes	**967**	220	220	ug/kg dry	10	"	GC/MS Scan	
C3-Chrysenes/Benz(a)anthracenes	**726**	220	220	"	"	"	"	
C3-Fluorenes	ND	220	220	"	"	"	"	
C3-Naphthalenes	ND	220	220	"	"	"	"	
C3-Phenanthrenes/Anthracenes	**501**	220	220	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	**1110**	440	440	"	"	"	"	
C4-Naphthalenes	ND	220	220	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	440	440	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 89 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*87 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED077 (A6C1076-14RE1)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**60.0**	20.7	20.7	ug/kg dry	1	04/08/16 13:27	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**69.9**	20.7	20.7	"	"	"	"	
C1-Fluorenes	ND	20.7	20.7	"	"	"	"	
C1-Phenanthrenes/Anthracenes	**41.5**	20.7	20.7	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	**24.2**	20.7	20.7	"	"	"	"	
C2-Fluorenes	ND	20.7	20.7	"	"	"	"	
C2-Naphthalenes	ND	20.7	20.7	"	"	"	"	
C2-Phenanthrenes/Anthracenes	**20.7**	20.7	20.7	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	20.7	20.7	"	"	"	"	
C3-Fluorenes	ND	20.7	20.7	"	"	"	"	
C3-Naphthalenes	ND	20.7	20.7	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	20.7	20.7	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	41.4	41.4	"	"	"	"	
C4-Naphthalenes	ND	20.7	20.7	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	41.4	41.4	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 81 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*90 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED077D (A6C1076-16RE1)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**25.7**	20.3	20.3	ug/kg dry	1	04/08/16 14:06	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**30.0**	20.3	20.3	"	"	"	"	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
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503-718-2323 Phone
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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 22:00

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077D (A6C1076-16RE1)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Fluorenes	ND	20.3	20.3	ug/kg dry	1	"	GC/MS Scan	
C1-Phenanthrenes/Anthracenes	**21.0**	20.3	20.3	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	20.3	20.3	"	"	"	"	
C2-Fluorenes	ND	20.3	20.3	"	"	"	"	
C2-Naphthalenes	ND	20.3	20.3	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	20.3	20.3	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	20.3	20.3	"	"	"	"	
C3-Fluorenes	ND	20.3	20.3	"	"	"	"	
C3-Naphthalenes	ND	20.3	20.3	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	20.3	20.3	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	40.5	40.5	"	"	"	"	
C4-Naphthalenes	ND	20.3	20.3	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	40.5	40.5	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 109 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*114 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**112**	87.3	87.3	ug/kg dry	4	04/01/16 19:35	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**126**	87.3	87.3	"	"	"	"	
C1-Fluorenes	ND	162	162	"	"	"	"	R-02
C1-Phenanthrenes/Anthracenes	ND	87.3	87.3	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	87.3	87.3	"	"	"	"	
C2-Fluorenes	ND	87.3	87.3	"	"	"	"	
C2-Naphthalenes	ND	87.3	87.3	"	"	"	"	
C2-Phenanthrenes/Anthracenes	ND	87.3	87.3	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	87.3	87.3	"	"	"	"	
C3-Fluorenes	ND	87.3	87.3	"	"	"	"	
C3-Naphthalenes	ND	87.3	87.3	"	"	"	"	
C3-Phenanthrenes/Anthracenes	ND	87.3	87.3	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	175	175	"	"	"	"	
C4-Naphthalenes	ND	87.3	87.3	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	175	175	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 73 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*84 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6040004**			

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
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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 22:00

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**167**	63.0	63.0	ug/kg dry	4	04/04/16 11:55	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**348**	63.0	63.0	"	"	"	"	
C1-Fluorenes	ND	63.0	63.0	"	"	"	"	
C1-Phenanthrenes/Anthracenes	**314**	63.0	63.0	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	ND	63.0	63.0	"	"	"	"	
C2-Fluorenes	ND	63.0	63.0	"	"	"	"	
C2-Naphthalenes	ND	63.0	63.0	"	"	"	"	
C2-Phenanthrenes/Anthracenes	**194**	63.0	63.0	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	63.0	63.0	"	"	"	"	
C3-Fluorenes	ND	63.0	63.0	"	"	"	"	
C3-Naphthalenes	**69.2**	63.0	63.0	"	"	"	"	
C3-Phenanthrenes/Anthracenes	**81.5**	63.0	63.0	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	126	126	"	"	"	"	
C4-Naphthalenes	ND	63.0	63.0	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	126	126	"	"	"	"	
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 87 %*	*Limits: 40-120 %*	"	"	"	
Benzo(a)pyrene-d12 (Surr)			*94 %*	*Limits: 40-120 %*	"	"	"	
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6040004**			
C1-Chrysenes/Benz(a)anthracenes	**138**	66.9	66.9	ug/kg dry	4	04/01/16 20:12	GC/MS Scan	
C1-Fluoranthrenes/Pyrenes	**356**	66.9	66.9	"	"	"	"	
C1-Fluorenes	**215**	66.9	66.9	"	"	"	"	
C1-Phenanthrenes/Anthracenes	**351**	66.9	66.9	"	"	"	"	
C2-Chrysenes/Benz(a)anthracenes	**75.7**	66.9	66.9	"	"	"	"	
C2-Fluorenes	**80.8**	66.9	66.9	"	"	"	"	
C2-Naphthalenes	**96.3**	66.9	66.9	"	"	"	"	
C2-Phenanthrenes/Anthracenes	**195**	66.9	66.9	"	"	"	"	
C3-Chrysenes/Benz(a)anthracenes	ND	66.9	66.9	"	"	"	"	
C3-Fluorenes	**76.9**	66.9	66.9	"	"	"	"	
C3-Naphthalenes	**267**	66.9	66.9	"	"	"	"	
C3-Phenanthrenes/Anthracenes	**131**	66.9	66.9	"	"	"	"	
C4-Chrysenes/Benz(a)anthracenes	ND	134	134	"	"	"	"	
C4-Naphthalenes	**121**	66.9	66.9	"	"	"	"	
C4-Phenanthrenes/Anthracenes	ND	134	134	"	"	"	"	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
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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 22:00

ANALYTICAL SAMPLE RESULTS

Alkylated PAH Homologs by 8270D Modified

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6040004**			
Surrogate: Acenaphthylene-d8 (Surr)			*Recovery: 86 %*	*Limits: 40-120 %*	4	"	GC/MS Scan	
Benzo(a)pyrene-d12 (Surr)			*92 %*	*Limits: 40-120 %*	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**					
Batch: 6040194								
Antimony	ND	0.310	0.620	mg/kg dry	5	04/11/16 11:58	EPA 6020A	
Arsenic	**1.68**	0.620	2.48	"	"	"	"	J
Barium	**201**	0.310	0.620	"	"	"	"	
Beryllium	**0.774**	0.0620	0.124	"	"	"	"	
Cadmium	**0.372**	0.310	0.620	"	"	"	"	J
Chromium	**17.7**	1.24	2.48	"	"	"	"	
Copper	**13.1**	0.620	1.24	"	"	"	"	
Lead	**8.15**	0.310	0.620	"	"	"	"	
Nickel	**6.92**	0.620	1.24	"	"	"	"	
Silver	ND	0.310	0.620	"	"	"	"	
Thallium	ND	0.310	0.620	"	"	"	"	
Vanadium	**93.4**	0.620	1.24	"	"	"	"	
Zinc	**81.0**	1.24	2.48	"	"	"	"	
5237-160328-DC-SED063 (A6C1076-02RE1)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**11600**	15.5	31.0	mg/kg dry	5	04/11/16 22:53	EPA 6020A	
Calcium	**3320**	620	1240	"	"	"	"	
Iron	**35200**	155	310	"	50	04/12/16 14:57	"	
Magnesium	**1120**	15.5	31.0	"	5	04/11/16 22:53	"	
Manganese	**761**	3.10	6.20	"	50	04/12/16 14:57	"	
Mercury	ND	0.0248	0.0496	"	5	04/11/16 22:53	"	
Potassium	**212**	31.0	62.0	"	"	"	"	
Selenium	ND	0.620	1.24	"	"	"	"	
Sodium	**127**	31.0	62.0	"	"	"	"	
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**12500**	20.1	40.2	mg/kg dry	5	04/11/16 12:01	EPA 6020A	
Antimony	ND	0.402	0.804	"	"	"	"	
Arsenic	**2.57**	0.804	3.21	"	"	"	"	J
Barium	**162**	0.402	0.804	"	"	"	"	
Beryllium	**0.739**	0.0804	0.161	"	"	"	"	
Cadmium	**0.474**	0.402	0.804	"	"	"	"	J
Calcium	**4180**	40.2	80.4	"	"	"	"	
Chromium	**14.7**	1.61	3.21	"	"	"	"	
Copper	**20.9**	0.804	1.61	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**					
Lead	**21.7**	0.402	0.804	mg/kg dry	5	"	EPA 6020A	
Magnesium	**3240**	20.1	40.2	"	"	"	"	
Nickel	**10.4**	0.804	1.61	"	"	"	"	
Potassium	**483**	40.2	80.4	"	"	"	"	
Silver	ND	0.402	0.804	"	"	"	"	
Sodium	**149**	40.2	80.4	"	"	"	"	
Thallium	ND	0.402	0.804	"	"	"	"	
Vanadium	**143**	0.804	1.61	"	"	"	"	
Zinc	**92.7**	1.61	3.21	"	"	"	"	
5237-160328-DC-SED065 (A6C1076-04RE1)			**Matrix: Sediment**					
Batch: 6040194								
Iron	**50400**	201	402	mg/kg dry	50	04/12/16 15:00	EPA 6020A	
Manganese	**1220**	4.02	8.04	"	"	"	"	
Mercury	ND	0.0321	0.0643	"	5	04/11/16 22:56	"	
Selenium	ND	0.804	1.61	"	"	"	"	
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**8020**	16.7	33.3	mg/kg dry	5	04/11/16 12:04	EPA 6020A	
Antimony	ND	0.333	0.667	"	"	"	"	
Arsenic	**1.89**	0.667	2.67	"	"	"	"	J
Barium	**126**	0.333	0.667	"	"	"	"	
Beryllium	**0.420**	0.0667	0.133	"	"	"	"	
Cadmium	ND	0.333	0.667	"	"	"	"	
Calcium	**3330**	33.3	66.7	"	"	"	"	
Chromium	**12.5**	1.33	2.67	"	"	"	"	
Copper	**13.6**	0.667	1.33	"	"	"	"	
Iron	**23500**	33.3	66.7	"	"	"	"	
Lead	**9.68**	0.333	0.667	"	"	"	"	
Magnesium	**1840**	16.7	33.3	"	"	"	"	
Nickel	**7.83**	0.667	1.33	"	"	"	"	
Potassium	**377**	33.3	66.7	"	"	"	"	
Silver	ND	0.333	0.667	"	"	"	"	
Sodium	**125**	33.3	66.7	"	"	"	"	
Thallium	ND	0.333	0.667	"	"	"	"	
Vanadium	**70.6**	0.667	1.33	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**					
Zinc	**56.3**	1.33	2.67	mg/kg dry	5	"	EPA 6020A	
5237-160328-DC-SED068 (A6C1076-06RE1)			**Matrix: Sediment**					
Batch: 6040194								
Manganese	**812**	3.33	6.67	mg/kg dry	50	04/12/16 15:03	EPA 6020A	
Mercury	ND	0.0267	0.0533	"	5	04/11/16 23:11	"	
Selenium	ND	0.667	1.33	"	"	"	"	
5237-160328-DC-SED070 (A6C1076-08)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**5760**	14.8	29.6	mg/kg dry	5	04/11/16 12:07	EPA 6020A	
Antimony	ND	0.296	0.591	"	"	"	"	
Arsenic	**2.41**	0.591	2.37	"	"	"	"	Q-42
Barium	**86.0**	0.296	0.591	"	"	"	"	
Beryllium	**0.449**	0.0591	0.118	"	"	"	"	
Cadmium	ND	0.296	0.591	"	"	"	"	
Calcium	**2780**	29.6	59.1	"	"	"	"	
Chromium	**8.40**	1.18	2.37	"	"	"	"	
Copper	**10.8**	0.591	1.18	"	"	"	"	
Iron	**24400**	29.6	59.1	"	"	"	"	Q-42
Lead	**7.62**	0.296	0.591	"	"	"	"	
Magnesium	**1270**	14.8	29.6	"	"	"	"	
Nickel	**5.67**	0.591	1.18	"	"	"	"	
Potassium	**237**	29.6	59.1	"	"	"	"	
Silver	ND	0.296	0.591	"	"	"	"	
Sodium	**102**	29.6	59.1	"	"	"	"	
Thallium	ND	0.296	0.591	"	"	"	"	
Vanadium	**70.2**	0.591	1.18	"	"	"	"	Q-42
Zinc	**53.5**	1.18	2.37	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED070 (A6C1076-08RE1)			**Matrix: Sediment**					
Batch: 6040194								
Manganese	**630**	2.96	5.91	mg/kg dry	50	04/12/16 15:17	EPA 6020A	Q-42
Mercury	ND	0.0237	0.0473	"	5	04/11/16 23:14	"	
Selenium	ND	0.591	1.18	"	"	"	"	
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**11200**	20.9	41.8	mg/kg dry	5	04/11/16 12:33	EPA 6020A	
Antimony	ND	0.418	0.836	"	"	"	"	
Arsenic	**5.02**	0.836	3.34	"	"	"	"	
Barium	**123**	0.418	0.836	"	"	"	"	
Beryllium	**0.560**	0.0836	0.167	"	"	"	"	
Cadmium	ND	0.418	0.836	"	"	"	"	
Calcium	**3370**	41.8	83.6	"	"	"	"	
Chromium	**16.6**	1.67	3.34	"	"	"	"	
Copper	**22.8**	0.836	1.67	"	"	"	"	
Iron	**28300**	41.8	83.6	"	"	"	"	
Lead	**14.4**	0.418	0.836	"	"	"	"	
Magnesium	**3650**	20.9	41.8	"	"	"	"	
Manganese	**793**	0.418	0.836	"	"	"	"	
Nickel	**16.3**	0.836	1.67	"	"	"	"	
Potassium	**794**	41.8	83.6	"	"	"	"	
Silver	ND	0.418	0.836	"	"	"	"	
Sodium	**103**	41.8	83.6	"	"	"	"	
Thallium	ND	0.418	0.836	"	"	"	"	
Vanadium	**81.9**	0.836	1.67	"	"	"	"	
Zinc	**77.9**	1.67	3.34	"	"	"	"	

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Philip Nerenberg

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED072 (A6C1076-10RE1)			**Matrix: Sediment**					
Batch: 6040194								
Mercury	ND	0.0334	0.0668	mg/kg dry	5	04/11/16 23:29	EPA 6020A	
Selenium	ND	0.836	1.67	"	"	"	"	
5237-160328-DC-SED075 (A6C1076-12)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**11600**	21.0	42.1	mg/kg dry	5	04/11/16 12:36	EPA 6020A	
Antimony	ND	0.421	0.841	"	"	"	"	
Arsenic	**1.78**	0.841	3.37	"	"	"	"	J
Barium	**131**	0.421	0.841	"	"	"	"	
Beryllium	**0.623**	0.0841	0.168	"	"	"	"	
Cadmium	ND	0.421	0.841	"	"	"	"	
Calcium	**2730**	42.1	84.1	"	"	"	"	
Chromium	**24.9**	1.68	3.37	"	"	"	"	
Copper	**21.8**	0.841	1.68	"	"	"	"	
Iron	**36700**	42.1	84.1	"	"	"	"	
Lead	**59.2**	0.421	0.841	"	"	"	"	
Magnesium	**2200**	21.0	42.1	"	"	"	"	
Manganese	**737**	0.421	0.841	"	"	"	"	
Nickel	**9.81**	0.841	1.68	"	"	"	"	
Potassium	**271**	42.1	84.1	"	"	"	"	
Silver	ND	0.421	0.841	"	"	"	"	
Sodium	**89.8**	42.1	84.1	"	"	"	"	
Thallium	ND	0.421	0.841	"	"	"	"	
Vanadium	**124**	0.841	1.68	"	"	"	"	
Zinc	**89.6**	1.68	3.37	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED075 (A6C1076-12RE1)			**Matrix: Sediment**					
Batch: 6040194								
Mercury	ND	0.0337	0.0673	mg/kg dry	5	04/11/16 23:31	EPA 6020A	
Selenium	ND	0.841	1.68	"	"	"	"	
5237-160328-DC-SED077 (A6C1076-14)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**17500**	19.4	38.7	mg/kg dry	5	04/11/16 12:39	EPA 6020A	
Antimony	ND	0.387	0.775	"	"	"	"	
Arsenic	**8.99**	0.775	3.10	"	"	"	"	
Barium	**161**	0.387	0.775	"	"	"	"	
Beryllium	**0.829**	0.0775	0.155	"	"	"	"	
Cadmium	**0.403**	0.387	0.775	"	"	"	"	J
Calcium	**3750**	38.7	77.5	"	"	"	"	
Chromium	**24.4**	1.55	3.10	"	"	"	"	
Copper	**29.5**	0.775	1.55	"	"	"	"	
Lead	**15.0**	0.387	0.775	"	"	"	"	
Magnesium	**5660**	19.4	38.7	"	"	"	"	
Manganese	**689**	0.387	0.775	"	"	"	"	
Nickel	**20.4**	0.775	1.55	"	"	"	"	
Potassium	**914**	38.7	77.5	"	"	"	"	
Silver	ND	0.387	0.775	"	"	"	"	
Sodium	**156**	38.7	77.5	"	"	"	"	
Thallium	ND	0.387	0.775	"	"	"	"	
Vanadium	**109**	0.775	1.55	"	"	"	"	
Zinc	**85.1**	1.55	3.10	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077 (A6C1076-14RE1)			**Matrix: Sediment**					
Batch: 6040194								
Iron	**42000**	194	387	mg/kg dry	50	04/12/16 15:26	EPA 6020A	
Mercury	ND	0.0310	0.0620	"	5	04/11/16 23:34	"	
Selenium	ND	0.775	1.55	"	"	"	"	
5237-160328-DC-SED077D (A6C1076-16)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**18700**	19.5	38.9	mg/kg dry	5	04/11/16 12:42	EPA 6020A	
Antimony	ND	0.389	0.778	"	"	"	"	
Arsenic	**11.3**	0.778	3.11	"	"	"	"	
Barium	**168**	0.389	0.778	"	"	"	"	
Beryllium	**0.825**	0.0778	0.156	"	"	"	"	
Cadmium	**0.498**	0.389	0.778	"	"	"	"	J
Calcium	**4020**	38.9	77.8	"	"	"	"	
Chromium	**24.7**	1.56	3.11	"	"	"	"	
Copper	**30.6**	0.778	1.56	"	"	"	"	
Lead	**15.8**	0.389	0.778	"	"	"	"	
Magnesium	**5860**	19.5	38.9	"	"	"	"	
Nickel	**21.2**	0.778	1.56	"	"	"	"	
Potassium	**1020**	38.9	77.8	"	"	"	"	
Silver	ND	0.389	0.778	"	"	"	"	
Sodium	**173**	38.9	77.8	"	"	"	"	
Thallium	ND	0.389	0.778	"	"	"	"	
Vanadium	**118**	0.778	1.56	"	"	"	"	
Zinc	**89.4**	1.56	3.11	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED077D (A6C1076-16RE1)			**Matrix: Sediment**					
Batch: 6040194								
Iron	**45600**	195	389	mg/kg dry	50	04/12/16 15:29	EPA 6020A	
Manganese	**838**	3.89	7.78	"	"	"	"	
Mercury	ND	0.0311	0.0623	"	5	04/11/16 23:37	"	
Selenium	ND	0.778	1.56	"	"	"	"	
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**17600**	20.7	41.4	mg/kg dry	5	04/11/16 12:45	EPA 6020A	
Antimony	ND	0.414	0.827	"	"	"	"	
Arsenic	**8.56**	0.827	3.31	"	"	"	"	
Barium	**145**	0.414	0.827	"	"	"	"	
Beryllium	**0.703**	0.0827	0.165	"	"	"	"	
Cadmium	ND	0.414	0.827	"	"	"	"	
Calcium	**2600**	41.4	82.7	"	"	"	"	
Chromium	**21.6**	1.65	3.31	"	"	"	"	
Copper	**24.1**	0.827	1.65	"	"	"	"	
Iron	**39700**	41.4	82.7	"	"	"	"	
Lead	**15.6**	0.414	0.827	"	"	"	"	
Magnesium	**4360**	20.7	41.4	"	"	"	"	
Manganese	**610**	0.414	0.827	"	"	"	"	
Nickel	**15.9**	0.827	1.65	"	"	"	"	
Potassium	**786**	41.4	82.7	"	"	"	"	
Silver	ND	0.414	0.827	"	"	"	"	
Sodium	**78.5**	41.4	82.7	"	"	"	"	J
Thallium	ND	0.414	0.827	"	"	"	"	
Vanadium	**109**	0.827	1.65	"	"	"	"	
Zinc	**75.8**	1.65	3.31	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED082 (A6C1076-18RE1)			**Matrix: Sediment**					
Batch: 6040194								
Mercury	ND	0.0331	0.0662	mg/kg dry	5	04/11/16 23:40	EPA 6020A	
Selenium	ND	0.827	1.65	"	"	"	"	
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**8000**	15.0	29.9	mg/kg dry	5	04/11/16 12:48	EPA 6020A	
Antimony	ND	0.299	0.598	"	"	"	"	
Arsenic	**1.99**	0.598	2.39	"	"	"	"	J
Barium	**132**	0.299	0.598	"	"	"	"	
Beryllium	**0.664**	0.0598	0.120	"	"	"	"	
Cadmium	ND	0.299	0.598	"	"	"	"	
Calcium	**2860**	29.9	59.8	"	"	"	"	
Chromium	**7.34**	1.20	2.39	"	"	"	"	
Copper	**11.2**	0.598	1.20	"	"	"	"	
Lead	**7.90**	0.299	0.598	"	"	"	"	
Magnesium	**1130**	15.0	29.9	"	"	"	"	
Manganese	**576**	0.299	0.598	"	"	"	"	
Nickel	**3.68**	0.598	1.20	"	"	"	"	
Potassium	**155**	29.9	59.8	"	"	"	"	
Silver	ND	0.299	0.598	"	"	"	"	
Sodium	**54.5**	29.9	59.8	"	"	"	"	J
Thallium	ND	0.299	0.598	"	"	"	"	
Vanadium	**99.6**	0.598	1.20	"	"	"	"	
Zinc	**52.2**	1.20	2.39	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED085 (A6C1076-20RE1)			**Matrix: Sediment**					
Batch: 6040194								
Iron	**61600**	150	299	mg/kg dry	50	04/12/16 15:32	EPA 6020A	
Mercury	ND	0.0239	0.0479	"	5	04/11/16 23:43	"	
Selenium	ND	0.598	1.20	"	"	"	"	
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**					
Batch: 6040194								
Aluminum	**7500**	15.7	31.4	mg/kg dry	5	04/11/16 12:51	EPA 6020A	
Antimony	ND	0.314	0.628	"	"	"	"	
Barium	**143**	0.314	0.628	"	"	"	"	
Beryllium	**0.496**	0.0628	0.126	"	"	"	"	
Cadmium	**0.415**	0.314	0.628	"	"	"	"	J
Calcium	**3920**	31.4	62.8	"	"	"	"	
Chromium	**10.7**	1.26	2.51	"	"	"	"	
Copper	**12.1**	0.628	1.26	"	"	"	"	
Iron	**39500**	157	314	"	50	04/12/16 15:35	"	
Lead	**7.48**	0.314	0.628	"	5	04/11/16 12:51	"	
Magnesium	**1340**	15.7	31.4	"	"	"	"	
Manganese	**535**	0.314	0.628	"	"	"	"	
Nickel	**6.45**	0.628	1.26	"	"	"	"	
Potassium	**300**	31.4	62.8	"	"	"	"	
Silver	ND	0.314	0.628	"	"	"	"	
Sodium	**297**	31.4	62.8	"	"	"	"	
Thallium	ND	0.314	0.628	"	"	"	"	
Vanadium	**130**	0.628	1.26	"	"	"	"	
Zinc	**70.6**	1.26	2.51	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED087 (A6C1076-22RE1)			**Matrix: Sediment**					
Batch: 6040194								
Arsenic	**0.993**	0.314	1.26	mg/kg dry	5	04/11/16 23:58	EPA 6020A	J
Mercury	ND	0.0251	0.0503	"	"	"	"	
Selenium	ND	0.628	1.26	"	"	"	"	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**14000**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**11000**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**14000**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED070 (A6C1076-08)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**8700**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**15000**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED075 (A6C1076-12)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**15000**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED077 (A6C1076-14)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**3200**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED077D (A6C1076-16)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**3500**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**13000**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**					
Batch: 6040120								
Total Organic Carbon	**1500**	100	200	mg/kg	1	04/07/16 16:20	SM 5310B MOD	
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**					
Batch: 6040121								
Total Organic Carbon	**4200**	100	200	mg/kg	1	04/08/16 13:30	SM 5310B MOD	

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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 22:00

ANALYTICAL SAMPLE RESULTS

Ammonia by UV Digestion/Gas Diffusion/Colorimetric Detection

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**0.817**	0.118	0.237	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**2.54**	0.152	0.304	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**2.95**	0.131	0.262	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED070 (A6C1076-08)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**0.884**	0.115	0.230	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**10.4**	0.154	0.309	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED075 (A6C1076-12)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**4.46**	0.167	0.333	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED077 (A6C1076-14)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**1.81**	0.154	0.307	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED077D (A6C1076-16)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**1.56**	0.135	0.271	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**8.70**	0.165	0.330	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**5.49**	0.114	0.228	mg/kg dry	1	04/06/16 19:15	SM4500-NH3 Mod	
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6040053**			
Ammonia as N	**7.88**	0.129	0.257	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 22:00

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED063G (A6C1076-01)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**80.1**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED063 (A6C1076-02)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**80.1**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED065G (A6C1076-03)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**61.6**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED065 (A6C1076-04)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**61.6**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED068G (A6C1076-05)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**74.3**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED068 (A6C1076-06)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**74.3**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED070G (A6C1076-07)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**83.4**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED070 (A6C1076-08)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**83.4**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED072G (A6C1076-09)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**59.1**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED072 (A6C1076-10)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**59.1**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED075G (A6C1076-11)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**58.8**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED075 (A6C1076-12)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**58.8**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED077G (A6C1076-13)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**62.7**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED077 (A6C1076-14)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**62.7**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED077GD (A6C1076-15)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**64.2**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED077D (A6C1076-16)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**64.2**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	

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Philip Nerenberg

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 22:00

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
5237-160328-DC-SED082G (A6C1076-17)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**59.9**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED082 (A6C1076-18)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**59.9**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED085G (A6C1076-19)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**82.6**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED085 (A6C1076-20)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**82.6**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	
5237-160328-DC-SED087G (A6C1076-21)			**Matrix: Sediment**		**Batch: 6040069**			
% Solids	**77.4**	1.00	1.00	% by Weight	1	04/04/16 14:33	EPA 8000C	A-01
5237-160328-DC-SED087 (A6C1076-22)			**Matrix: Sediment**		**Batch: 6031007**			
% Solids	**77.4**	1.00	1.00	% by Weight	1	04/01/16 09:22	EPA 8000C	

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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 22:00

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 6031009 - EPA 3546 (Fuels)									**Sediment**			
Blank (6031009-BLK1)					Prepared: 03/31/16 10:03 Analyzed: 03/31/16 17:46							
NWTPH-Dx												
Diesel	ND	8.33	16.7	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (6031009-BS1)					Prepared: 03/31/16 10:03 Analyzed: 03/31/16 18:06							
NWTPH-Dx												
Diesel	114	10.0	20.0	mg/kg wet	1	125	---	91	76-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (6031009-DUP1)					Prepared: 03/31/16 10:03 Analyzed: 03/31/16 18:46							
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
NWTPH-Dx												
Diesel	**13.2**	11.2	22.4	mg/kg dry	1	---	21.6	---	---	48	30%	Q-05, J
Oil	**22.6**	22.4	44.8	"	"	---	37.5	---	---	50	30%	Q-05, J
Surr: o-Terphenyl (Surr)			*Recovery: 91 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (6031009-DUP2)					Prepared: 03/31/16 10:03 Analyzed: 04/01/16 00:25							
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
NWTPH-Dx												
Diesel	**36.5**	11.0	22.0	mg/kg dry	1	---	33.9	---	---	7	30%	F-11, F-15
Oil	**95.6**	22.0	44.0	"	"	---	92.7	---	---	3	30%	F-03, F-16
Surr: o-Terphenyl (Surr)			*Recovery: 92 %*	*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 22:00

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 6030957 - EPA 5035A									Soil			
Blank (6030957-BLK1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 11:47							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 91 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*95 %*	*50-150 %*			*"*					
LCS (6030957-BS2)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 11:23							
NWTPH-Gx (MS)												
Gasoline Range Organics	20.6	2.50	5.00	mg/kg wet	50	25.0	---	83	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 78 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*			*"*					
Duplicate (6030957-DUP2)					Prepared: 03/28/16 10:30 Analyzed: 03/30/16 16:20							
QC Source Sample: 5237-160328-DC-SED063G (A6C1076-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	3.93	7.86	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 97 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*96 %*	*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 22:00

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 6030957 - EPA 5035A									Soil			
Blank (6030957-BLK1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 11:47							
5035/8260B												
Benzene	ND	3.33	6.67	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Xylenes, total	ND	25.0	50.0	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 103 %*		*Limits: 70-130 %*		*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*102 %*		*70-130 %*		*"*					
Toluene-d8 (Surr)			*102 %*		*70-130 %*		*50x*					
4-Bromofluorobenzene (Surr)			*98 %*		*70-130 %*		*1x*					
LCS (6030957-BS1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 10:58							
5035/8260B												
Benzene	920	5.00	10.0	ug/kg wet	50	1000	---	92	65-135%	---	---	
Toluene	904	25.0	50.0	"	"	"	---	90	"	---	---	
Ethylbenzene	916	12.5	25.0	"	"	"	---	92	"	---	---	
Xylenes, total	2780	37.5	75.0	"	"	3000	---	93	"	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 117 %*		*Limits: 70-130 %*		*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*102 %*		*70-130 %*		*"*					
Toluene-d8 (Surr)			*97 %*		*70-130 %*		*50x*					
4-Bromofluorobenzene (Surr)			*92 %*		*70-130 %*		*1x*					
Duplicate (6030957-DUP2)					Prepared: 03/28/16 10:30 Analyzed: 03/30/16 16:20							
QC Source Sample: 5237-160328-DC-SED063G (A6C1076-01)												
5035/8260B												
Benzene	ND	7.86	15.7	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
Xylenes, total	ND	59.0	118	"	"	---	ND	---	---	---	30%	
Surr: Dibromofluoromethane (Surr)			*Recovery: 113 %*		*Limits: 70-130 %*		*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*103 %*		*70-130 %*		*"*					
Toluene-d8 (Surr)			*99 %*		*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 22:00

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 6030957 - EPA 5035A							**Soil**					
Blank (6030957-BLK1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 11:47							
5035/8260B												
Acetone	ND	333	667	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	3.33	6.67	"	"	---	---	---	---	---	---	
Bromobenzene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	33.3	66.7	"	"	---	---	---	---	---	---	
Bromoform	ND	83.3	167	"	"	---	---	---	---	---	---	
Bromomethane	ND	333	333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	167	333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	83.3	167	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Chloroethane	ND	167	333	"	"	---	---	---	---	---	---	E-03
Chloroform	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Chloromethane	ND	83.3	167	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	83.3	167	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	83.3	167	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Dibromomethane	ND	16.7	33.3	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	33.3	66.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	8.33	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	8.33	16.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	8.33	16.7	"	"	---	---	---	---	---	---	

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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 22:00

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 6030957 - EPA 5035A							**Soil**					
Blank (6030957-BLK1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 11:47							
cis-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	8.33	16.7	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	16.7	33.3	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	16.7	33.3	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	83.3	167	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	33.3	66.7	"	"	---	---	---	---	---	---	
2-Hexanone	ND	167	333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	167	333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Methylene chloride	ND	83.3	167	"	"	---	---	---	---	---	---	
Naphthalene	ND	33.3	66.7	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Styrene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	8.33	16.7	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	83.3	167	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Toluene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	83.3	167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	83.3	167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	8.33	16.7	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	33.3	66.7	"	"	---	---	---	---	---	---	E-03
1,2,3-Trichloropropane	ND	16.7	33.3	"	"	---	---	---	---	---	---	

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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 22:00

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 6030957 - EPA 5035A									Soil			
Blank (6030957-BLK1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 11:47							
1,2,4-Trimethylbenzene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	8.33	16.7	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	16.7	33.3	"	"	---	---	---	---	---	---	
o-Xylene	ND	8.33	16.7	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 103 %*		*Limits: 70-130 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Surr)			*102 %*		*70-130 %*				*"*			
Toluene-d8 (Surr)			*102 %*		*70-130 %*				*50x*			
4-Bromofluorobenzene (Surr)			*98 %*		*70-130 %*				*1x*			
LCS (6030957-BS1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 10:58							
5035/8260B												
Acetone	2040	500	1000	ug/kg wet	50	2000	---	102	65-135%	---	---	
Benzene	920	5.00	10.0	"	"	1000	---	92	"	---	---	
Bromobenzene	840	12.5	25.0	"	"	"	---	84	"	---	---	
Bromochloromethane	1040	25.0	50.0	"	"	"	---	104	"	---	---	
Bromodichloromethane	1050	50.0	100	"	"	"	---	105	"	---	---	
Bromoform	1220	125	250	"	"	"	---	122	"	---	---	
Bromomethane	1210	500	500	"	"	"	---	121	"	---	---	Q-41
2-Butanone (MEK)	2030	250	500	"	"	2000	---	102	"	---	---	
n-Butylbenzene	814	25.0	50.0	"	"	1000	---	81	"	---	---	
sec-Butylbenzene	857	25.0	50.0	"	"	"	---	86	"	---	---	
tert-Butylbenzene	801	25.0	50.0	"	"	"	---	80	"	---	---	
Carbon tetrachloride	1090	125	250	"	"	"	---	109	"	---	---	
Chlorobenzene	926	12.5	25.0	"	"	"	---	93	"	---	---	
Chloroethane	1720	250	500	"	"	"	---	172	"	---	---	E-03
Chloroform	987	25.0	50.0	"	"	"	---	99	"	---	---	
Chloromethane	964	125	250	"	"	"	---	96	"	---	---	
2-Chlorotoluene	830	25.0	50.0	"	"	"	---	83	"	---	---	
4-Chlorotoluene	878	25.0	50.0	"	"	"	---	88	"	---	---	
1,2-Dibromo-3-chloropropane	1130	125	250	"	"	"	---	113	"	---	---	

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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 22:00

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 6030957 - EPA 5035A								**Soil**				
LCS (6030957-BS1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 10:58							
Dibromochloromethane	1160	125	250	ug/kg wet	"	"	---	116	"	---	---	
1,2-Dibromoethane (EDB)	990	25.0	50.0	"	"	"	---	99	"	---	---	
Dibromomethane	1020	25.0	50.0	"	"	"	---	102	"	---	---	
1,2-Dichlorobenzene	928	12.5	25.0	"	"	"	---	93	"	---	---	
1,3-Dichlorobenzene	896	12.5	25.0	"	"	"	---	90	"	---	---	
1,4-Dichlorobenzene	890	12.5	25.0	"	"	"	---	89	"	---	---	
Dichlorodifluoromethane	1020	50.0	100	"	"	"	---	102	"	---	---	
1,1-Dichloroethane	954	12.5	25.0	"	"	"	---	95	"	---	---	
1,2-Dichloroethane (EDC)	1010	12.5	25.0	"	"	"	---	101	"	---	---	
1,1-Dichloroethene	994	12.5	25.0	"	"	"	---	99	"	---	---	
cis-1,2-Dichloroethene	918	12.5	25.0	"	"	"	---	92	"	---	---	
trans-1,2-Dichloroethene	952	12.5	25.0	"	"	"	---	95	"	---	---	
1,2-Dichloropropane	940	12.5	25.0	"	"	"	---	94	"	---	---	
1,3-Dichloropropane	920	25.0	50.0	"	"	"	---	92	"	---	---	
2,2-Dichloropropane	958	25.0	50.0	"	"	"	---	96	"	---	---	
1,1-Dichloropropene	924	25.0	50.0	"	"	"	---	92	"	---	---	
cis-1,3-Dichloropropene	850	25.0	50.0	"	"	"	---	85	"	---	---	
trans-1,3-Dichloropropene	986	125	250	"	"	"	---	99	"	---	---	
Ethylbenzene	916	12.5	25.0	"	"	"	---	92	"	---	---	
Hexachlorobutadiene	983	50.0	100	"	"	"	---	98	"	---	---	
2-Hexanone	1760	250	500	"	"	2000	---	88	"	---	---	
Isopropylbenzene	874	25.0	50.0	"	"	1000	---	87	"	---	---	
4-Isopropyltoluene	864	25.0	50.0	"	"	"	---	86	"	---	---	
4-Methyl-2-pentanone (MiBK)	1850	250	500	"	"	2000	---	92	"	---	---	
Methyl tert-butyl ether (MTBE)	954	25.0	50.0	"	"	1000	---	95	"	---	---	
Methylene chloride	1020	125	250	"	"	"	---	102	"	---	---	
Naphthalene	853	50.0	100	"	"	"	---	85	"	---	---	
n-Propylbenzene	800	12.5	25.0	"	"	"	---	80	"	---	---	
Styrene	908	25.0	50.0	"	"	"	---	91	"	---	---	
1,1,1,2-Tetrachloroethane	1080	12.5	25.0	"	"	"	---	108	"	---	---	

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AMENDED REPORT

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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 22:00

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 6030957 - EPA 5035A								**Soil**				
LCS (6030957-BS1)					Prepared: 03/30/16 09:00 Analyzed: 03/30/16 10:58							
1,1,2,2-Tetrachloroethane	1220	125	250	"	"	"	---	122	"	---	---	
Tetrachloroethene (PCE)	936	12.5	25.0	"	"	"	---	94	"	---	---	
Toluene	904	25.0	50.0	"	"	"	---	90	"	---	---	
1,2,3-Trichlorobenzene	872	125	250	"	"	"	---	87	"	---	---	
1,2,4-Trichlorobenzene	810	125	250	"	"	"	---	81	"	---	---	
1,1,1-Trichloroethane	1040	12.5	25.0	"	"	"	---	104	"	---	---	
1,1,2-Trichloroethane	992	12.5	25.0	"	"	"	---	99	"	---	---	
Trichloroethene (TCE)	881	12.5	25.0	"	"	"	---	88	"	---	---	
Trichlorofluoromethane	3380	50.0	100	"	"	"	---	338	"	---	---	E-03
1,2,3-Trichloropropane	976	25.0	50.0	"	"	"	---	98	"	---	---	
1,2,4-Trimethylbenzene	872	25.0	50.0	"	"	"	---	87	"	---	---	
1,3,5-Trimethylbenzene	858	25.0	50.0	"	"	"	---	86	"	---	---	
Vinyl chloride	1200	12.5	25.0	"	"	"	---	120	"	---	---	Q-41
m,p-Xylene	1880	25.0	50.0	"	"	2000	---	94	"	---	---	
o-Xylene	898	12.5	25.0	"	"	1000	---	90	"	---	---	

Surr: Dibromofluoromethane (Surr)	*Recovery: 117 %*	*Limits: 70-130 %*	*Dilution: 1x*
1,4-Difluorobenzene (Surr)	*102 %*	*70-130 %*	*"*
Toluene-d8 (Surr)	*97 %*	*70-130 %*	*50x*
4-Bromofluorobenzene (Surr)	*92 %*	*70-130 %*	*1x*

Duplicate (6030957-DUP2) Prepared: 03/28/16 10:30 Analyzed: 03/30/16 16:20

QC Source Sample: 5237-160328-DC-SED063G (A6C1076-01)

5035/8260B

Acetone	ND	786	1570	ug/kg dry	50	---	ND	---	---	---	30%
Benzene	ND	7.86	15.7	"	"	---	ND	---	---	---	30%
Bromobenzene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%
Bromochloromethane	ND	39.3	78.6	"	"	---	ND	---	---	---	30%
Bromodichloromethane	ND	78.6	157	"	"	---	ND	---	---	---	30%
Bromoform	ND	197	393	"	"	---	ND	---	---	---	30%
Bromomethane	ND	786	786	"	"	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	393	786	"	"	---	ND	---	---	---	30%
n-Butylbenzene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%

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Philip Nerenberg

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 22:00

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 6030957 - EPA 5035A							**Soil**					
Duplicate (6030957-DUP2)					Prepared: 03/28/16 10:30 Analyzed: 03/30/16 16:20							
QC Source Sample: 5237-160328-DC-SED063G (A6C1076-01)												
sec-Butylbenzene	ND	39.3	78.6	ug/kg dry	"	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	197	393	"	"	---	ND	---	---	---	30%	
Chlorobenzene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
Chloroethane	ND	393	786	"	"	---	ND	---	---	---	30%	E-03
Chloroform	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
Chloromethane	ND	197	393	"	"	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	197	393	"	"	---	ND	---	---	---	30%	
Dibromochloromethane	ND	197	393	"	"	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
Dibromomethane	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	78.6	157	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	197	393	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

12232 S.W. Garden Place
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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 22:00

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 6030957 - EPA 5035A							**Soil**					
Duplicate (6030957-DUP2)					Prepared: 03/28/16 10:30 Analyzed: 03/30/16 16:20							
QC Source Sample: 5237-160328-DC-SED063G (A6C1076-01)												
Hexachlorobutadiene	ND	78.6	157	ug/kg dry	"	---	ND	---	---	---	30%	
2-Hexanone	ND	393	786	"	"	---	ND	---	---	---	30%	
Isopropylbenzene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	393	786	"	"	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
Methylene chloride	ND	197	393	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	78.6	157	"	"	---	ND	---	---	---	30%	
n-Propylbenzene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
Styrene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	197	393	"	"	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
Toluene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	197	393	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	197	393	"	"	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	78.6	157	"	"	---	ND	---	---	---	30%	E-03
1,2,3-Trichloropropane	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
Vinyl chloride	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	
m,p-Xylene	ND	39.3	78.6	"	"	---	ND	---	---	---	30%	
o-Xylene	ND	19.7	39.3	"	"	---	ND	---	---	---	30%	

Surr: Dibromofluoromethane (Surr)	*Recovery: 113 %*	*Limits: 70-130 %*	*Dilution: 1x*	
1,4-Difluorobenzene (Surr)	*103 %*	*70-130 %*	*"*	
Toluene-d8 (Surr)	*99 %*	*70-130 %*	*50x*	

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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 22:00

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 6030957 - EPA 5035A												**Soil**
Duplicate (6030957-DUP2)												
Prepared: 03/28/16 10:30 Analyzed: 03/30/16 16:20												
QC Source Sample: 5237-160328-DC-SED063G (A6C1076-01)												
Surr: 4-Bromofluorobenzene (Surr)						*Recovery: 96 %*	*Limits: 70-130 %*					*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 22:00

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 6040118 - Method Prep: Non-Aq								**Soil**				
Blank (6040118-BLK1)					Prepared: 04/05/16 17:05		Analyzed: 04/08/16 13:41					
EPA 9056A												
Sulfate	ND	10.0	10.0	mg/kg wet	1	---	---	---	---	---	---	
LCS (6040118-BS1)					Prepared: 04/05/16 17:05		Analyzed: 04/08/16 14:02					
EPA 9056A												
Sulfate	79.1	10.0	10.0	mg/kg wet	1	80.0	---	99	90-110%	---	---	
Duplicate (6040118-DUP1)					Prepared: 04/05/16 17:05		Analyzed: 04/08/16 15:07					
QC Source Sample: 5237-160328-DC-SED065 (A6C1076-04)												
EPA 9056A												
Sulfate	ND	15.9	15.9	mg/kg dry	1	---	ND	---	---	---	15%	
Matrix Spike (6040118-MS1)					Prepared: 04/05/16 17:05		Analyzed: 04/08/16 15:29					
QC Source Sample: 5237-160328-DC-SED065 (A6C1076-04)												
EPA 9056A												
Sulfate	128	15.9	15.9	mg/kg dry	1	127	ND	101	80-120%	---	---	

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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 22:00

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-DUP1)					Prepared: 04/11/16 09:44		Analyzed: 04/11/16 17:45					
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
EPA 9013M/9014												
Cyanide, Total	ND	0.124	0.124	mg/kg dry	1	---	ND	---	---	---	10%	
Matrix Spike (6040256-MS1)					Prepared: 04/11/16 09:44		Analyzed: 04/11/16 17:47					
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
EPA 9013M/9014												
Cyanide, Total	5.14	0.122	0.122	mg/kg dry	1	4.87	ND	105	80-120%	---	---	

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
Blank (6040004-BLK1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 12:16							
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	**3.56**	2.50	5.00	"	"	---	---	---	---	---	---	B-02, J
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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Philip Nerenberg

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 22:00

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 6040004 - EPA 3546							**Sediment**					
Blank (6040004-BLK1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 12:16							
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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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 22:00

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 6040004 - EPA 3546							**Sediment**					
Blank (6040004-BLK1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 12:16							
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: 86 %*	*Limits: 37-122 %*		*Dilution: 1x*						
2-Fluorobiphenyl (Surr)			*94 %*	*44-115 %*		*"*						
Phenol-d6 (Surr)			*85 %*	*33-122 %*		*"*						
p-Terphenyl-d14 (Surr)			*105 %*	*54-127 %*		*"*						
2-Fluorophenol (Surr)			*85 %*	*35-115 %*		*"*						
2,4,6-Tribromophenol (Surr)			*88 %*	*39-132 %*		*"*						
LCS (6040004-BS1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 12:52							
EPA 8270D												
Acenaphthene	498	2.66	5.34	ug/kg wet	2	533	---	93	40-122%	---	---	
Acenaphthylene	508	2.66	5.34	"	"	"	---	95	32-132%	---	---	
Anthracene	542	2.66	5.34	"	"	"	---	102	47-123%	---	---	
Benz(a)anthracene	531	2.66	5.34	"	"	"	---	100	49-126%	---	---	

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AMENDED REPORT

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Tigard, OR 97223
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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 22:00

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 6040004 - EPA 3546							**Sediment**					
LCS (6040004-BS1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 12:52							
Benzo(a)pyrene	570	4.00	8.00	ug/kg wet	"	"	---	107	45-129%	---	---	
Benzo(b)fluoranthene	595	4.00	8.00	"	"	"	---	112	45-132%	---	---	
Benzo(k)fluoranthene	596	4.00	8.00	"	"	"	---	112	47-132%	---	---	
Benzo(g,h,i)perylene	522	2.66	5.34	"	"	"	---	98	43-134%	---	---	
Chrysene	525	2.66	5.34	"	"	"	---	98	50-124%	---	---	
Dibenz(a,h)anthracene	544	2.66	5.34	"	"	"	---	102	45-134%	---	---	
Fluoranthene	534	2.66	5.34	"	"	"	---	100	50-127%	---	---	
Fluorene	524	2.66	5.34	"	"	"	---	98	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	510	2.66	5.34	"	"	"	---	96	45-133%	---	---	
1-Methylnaphthalene	492	5.34	10.7	"	"	"	---	92	40-120%	---	---	
2-Methylnaphthalene	489	5.34	10.7	"	"	"	---	92	38-122%	---	---	
Naphthalene	490	5.34	10.7	"	"	"	---	92	35-123%	---	---	B-02
Phenanthrene	509	2.66	5.34	"	"	"	---	96	50-121%	---	---	
Pyrene	539	2.66	5.34	"	"	"	---	101	47-127%	---	---	
Carbazole	613	4.00	8.00	"	"	"	---	115	50-122%	---	---	
Dibenzofuran	518	2.66	5.34	"	"	"	---	97	44-120%	---	---	
4-Chloro-3-methylphenol	516	26.6	53.4	"	"	"	---	97	45-122%	---	---	
2-Chlorophenol	496	13.3	26.6	"	"	"	---	93	34-121%	---	---	
2,4-Dichlorophenol	531	13.3	26.6	"	"	"	---	100	40-122%	---	---	
2,4-Dimethylphenol	520	13.3	26.6	"	"	"	---	97	30-127%	---	---	
2,4-Dinitrophenol	508	66.6	133	"	"	"	---	95	5-137%	---	---	
4,6-Dinitro-2-methylphenol	551	66.6	133	"	"	"	---	103	29-132%	---	---	
2-Methylphenol	490	6.66	13.3	"	"	"	---	92	32-122%	---	---	
3+4-Methylphenol(s)	488	6.66	13.3	"	"	"	---	92	34-120%	---	---	
2-Nitrophenol	587	26.6	53.4	"	"	"	---	110	36-123%	---	---	
4-Nitrophenol	524	26.6	53.4	"	"	"	---	98	30-132%	---	---	
Pentachlorophenol (PCP)	485	26.6	53.4	"	"	"	---	91	25-133%	---	---	
Phenol	499	5.34	10.7	"	"	"	---	94	34-120%	---	---	
2,3,4,6-Tetrachlorophenol	576	13.3	26.6	"	"	"	---	108	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	546	13.3	26.6	"	"	"	---	102	40-120%	---	---	
2,4,5-Trichlorophenol	529	13.3	26.6	"	"	"	---	99	41-124%	---	---	

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
LCS (6040004-BS1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 12:52							
2,4,6-Trichlorophenol	508	13.3	26.6	ug/kg wet	"	"	---	95	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	532	40.0	80.0	"	"	"	---	100	51-133%	---	---	
Butyl benzyl phthalate	537	26.6	53.4	"	"	"	---	101	48-132%	---	---	
Diethylphthalate	544	26.6	53.4	"	"	"	---	102	50-124%	---	---	
Dimethylphthalate	531	26.6	53.4	"	"	"	---	100	48-124%	---	---	
Di-n-butylphthalate	544	26.6	53.4	"	"	"	---	102	51-128%	---	---	
Di-n-octyl phthalate	596	26.6	53.4	"	"	"	---	112	44-140%	---	---	
N-Nitrosodimethylamine	425	6.66	13.3	"	"	"	---	80	23-120%	---	---	
N-Nitroso-di-n-propylamine	475	6.66	13.3	"	"	"	---	89	36-120%	---	---	
N-Nitrosodiphenylamine	541	6.66	13.3	"	"	"	---	101	38-127%	---	---	
Bis(2-Chloroethoxy) methane	476	6.66	13.3	"	"	"	---	89	36-121%	---	---	
Bis(2-Chloroethyl) ether	441	6.66	13.3	"	"	"	---	83	31-120%	---	---	
Bis(2-Chloroisopropyl) ether	446	6.66	13.3	"	"	"	---	84	33-131%	---	---	
Hexachlorobenzene	507	2.66	5.34	"	"	"	---	95	44-122%	---	---	
Hexachlorobutadiene	508	6.66	13.3	"	"	"	---	95	32-123%	---	---	
Hexachlorocyclopentadiene	581	13.3	26.6	"	"	"	---	109	5-140%	---	---	
Hexachloroethane	478	6.66	13.3	"	"	"	---	90	28-120%	---	---	
2-Chloronaphthalene	499	2.66	5.34	"	"	"	---	94	41-120%	---	---	
1,2-Dichlorobenzene	474	6.66	13.3	"	"	"	---	89	33-120%	---	---	
1,3-Dichlorobenzene	471	6.66	13.3	"	"	"	---	88	30-120%	---	---	
1,4-Dichlorobenzene	474	6.66	13.3	"	"	"	---	89	31-120%	---	---	
1,2,4-Trichlorobenzene	507	6.66	13.3	"	"	"	---	95	34-120%	---	---	
4-Bromophenyl phenyl ether	531	6.66	13.3	"	"	"	---	100	46-124%	---	---	
4-Chlorophenyl phenyl ether	526	6.66	13.3	"	"	"	---	99	45-121%	---	---	
Aniline	390	13.3	26.6	"	"	"	---	73	7-120%	---	---	
4-Chloroaniline	251	6.66	13.3	"	"	"	---	47	16-120%	---	---	
2-Nitroaniline	571	53.4	107	"	"	"	---	107	44-127%	---	---	
3-Nitroaniline	416	53.4	107	"	"	"	---	78	33-120%	---	---	

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
LCS (6040004-BS1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 12:52							
4-Nitroaniline	604	53.4	107	ug/kg wet	"	"	---	113	35-120%	---	---	
Nitrobenzene	476	26.6	53.4	"	"	"	---	89	34-122%	---	---	
2,4-Dinitrotoluene	573	26.6	53.4	"	"	"	---	107	48-126%	---	---	
2,6-Dinitrotoluene	555	26.6	53.4	"	"	"	---	104	46-124%	---	---	
Benzoic acid	276	200	666	"	"	1070	---	26	5-140%	---	---	Q-31, J
Benzyl alcohol	474	13.3	26.6	"	"	533	---	89	29-122%	---	---	
Isophorone	502	6.66	13.3	"	"	"	---	94	30-122%	---	---	
Azobenzene (1,2-DPH)	509	6.66	13.3	"	"	"	---	95	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	547	66.6	133	"	"	"	---	103	60-121%	---	---	
3,3'-Dichlorobenzidine	1490	26.6	53.4	"	"	1070	---	140	22-121%	---	---	Q-29, Q-41
1,2-Dinitrobenzene	543	66.6	133	"	"	533	---	102	44-120%	---	---	
1,3-Dinitrobenzene	568	66.6	133	"	"	"	---	107	42-127%	---	---	
1,4-Dinitrobenzene	567	66.6	133	"	"	"	---	106	37-132%	---	---	
Pyridine	394	13.3	26.6	"	"	"	---	74	5-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 84 %*	*Limits: 37-122 %*			*Dilution: 2x*					
2-Fluorobiphenyl (Surr)			*90 %*	*44-115 %*			*"*					
Phenol-d6 (Surr)			*86 %*	*33-122 %*			*"*					
p-Terphenyl-d14 (Surr)			*102 %*	*54-127 %*			*"*					
2-Fluorophenol (Surr)			*85 %*	*35-115 %*			*"*					
2,4,6-Tribromophenol (Surr)			*107 %*	*39-132 %*			*"*					
Duplicate (6040004-DUP1)					Prepared: 04/01/16 07:07 Analyzed: 04/04/16 11:18							
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
EPA 8270D												
Acenaphthene	**47.9**	6.26	12.6	ug/kg dry	4	---	25.1	---	---	62	30%	Q-04
Acenaphthylene	**6.65**	6.26	12.6	"	"	---	7.70	---	---	15	30%	J
Anthracene	**62.8**	6.26	12.6	"	"	---	34.3	---	---	59	30%	Q-04
Benz(a)anthracene	**491**	6.26	12.6	"	"	---	237	---	---	70	30%	Q-04
Benzo(a)pyrene	**655**	9.42	18.8	"	"	---	357	---	---	59	30%	Q-04
Benzo(b)fluoranthene	**742**	9.42	18.8	"	"	---	418	---	---	56	30%	M-02, Q-04
Benzo(k)fluoranthene	**226**	9.42	18.8	"	"	---	118	---	---	62	30%	M-02, Q-04
Benzo(g,h,i)perylene	**494**	6.26	12.6	"	"	---	303	---	---	48	30%	Q-04

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
Duplicate (6040004-DUP1)						Prepared: 04/01/16 07:07	Analyzed: 04/04/16 11:18					
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
Chrysene	**574**	6.26	12.6	ug/kg dry	"	---	282	---	---	68	30%	Q-04
Dibenz(a,h)anthracene	**99.6**	6.26	12.6	"	"	---	50.4	---	---	66	30%	Q-04
Fluoranthene	**585**	6.26	12.6	"	"	---	336	---	---	54	30%	Q-04
Fluorene	**19.3**	6.26	12.6	"	"	---	10.5	---	---	59	30%	Q-04
Indeno(1,2,3-cd)pyrene	**429**	6.26	12.6	"	"	---	269	---	---	46	30%	Q-04
1-Methylnaphthalene	ND	12.6	25.1	"	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	12.6	25.1	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	12.6	25.1	"	"	---	ND	---	---	---	30%	
Phenanthrene	**286**	6.26	12.6	"	"	---	155	---	---	59	30%	Q-04
Pyrene	**687**	6.26	12.6	"	"	---	412	---	---	50	30%	Q-04
Carbazole	**51.8**	9.42	18.8	"	"	---	26.3	---	---	65	30%	Q-04
Dibenzofuran	**9.55**	6.26	12.6	"	"	---	ND	---	---		30%	J
4-Chloro-3-methylphenol	ND	62.6	126	"	"	---	ND	---	---	---	30%	
2-Chlorophenol	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	157	314	"	"	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	157	314	"	"	---	ND	---	---	---	30%	
2-Methylphenol	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
2-Nitrophenol	ND	62.6	126	"	"	---	ND	---	---	---	30%	
4-Nitrophenol	ND	62.6	126	"	"	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	62.6	126	"	"	---	ND	---	---	---	30%	
Phenol	ND	12.6	25.1	"	"	---	ND	---	---	---	30%	
2,3,4,6-Tetrachlorophenol	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	94.2	188	"	"	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	62.6	126	"	"	---	ND	---	---	---	30%	

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
Duplicate (6040004-DUP1)					Prepared: 04/01/16 07:07 Analyzed: 04/04/16 11:18							
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
Diethylphthalate	ND	62.6	126	ug/kg dry	"	---	ND	---	---	---	30%	
Dimethylphthalate	ND	62.6	126	"	"	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	62.6	126	"	"	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	62.6	126	"	"	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroisopropyl) ether	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	6.26	12.6	"	"	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
Hexachloroethane	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	6.26	12.6	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
Aniline	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
4-Chloroaniline	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
2-Nitroaniline	ND	126	251	"	"	---	ND	---	---	---	30%	
3-Nitroaniline	ND	126	251	"	"	---	ND	---	---	---	30%	
4-Nitroaniline	ND	126	251	"	"	---	ND	---	---	---	30%	
Nitrobenzene	ND	62.6	126	"	"	---	ND	---	---	---	30%	

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Philip Nerenberg

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 22:00

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 6040004 - EPA 3546											**Sediment**	
Duplicate (6040004-DUP1)					Prepared: 04/01/16 07:07 Analyzed: 04/04/16 11:18							
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
2,4-Dinitrotoluene	ND	62.6	126	ug/kg dry	"	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	62.6	126	"	"	---	ND	---	---	---	30%	
Benzoic acid	ND	786	1570	"	"	---	ND	---	---	---	30%	
Benzyl alcohol	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
Isophorone	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	15.7	31.4	"	"	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	157	314	"	"	---	ND	---	---	---	30%	
3,3'-Dichlorobenzidine	ND	62.6	126	"	"	---	ND	---	---	---	30%	
1,2-Dinitrobenzene	ND	157	314	"	"	---	ND	---	---	---	30%	
1,3-Dinitrobenzene	ND	157	314	"	"	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	157	314	"	"	---	ND	---	---	---	30%	
Pyridine	ND	31.4	62.6	"	"	---	ND	---	---	---	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 55 %*	*Limits: 37-122 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*74 %*	*44-115 %*			*"*					
Phenol-d6 (Surr)			*60 %*	*33-122 %*			*"*					
p-Terphenyl-d14 (Surr)			*97 %*	*54-127 %*			*"*					
2-Fluorophenol (Surr)			*47 %*	*35-115 %*			*"*					
2,4,6-Tribromophenol (Surr)			*95 %*	*39-132 %*			*"*					
Matrix Spike (6040004-MS1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 20:49							
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
EPA 8270D												
Acenaphthene	2560	6.74	13.5	ug/kg dry	4	675	1800	113	40-122%	---	---	
Acenaphthylene	606	6.74	13.5	"	"	"	24.4	86	32-132%	---	---	
Anthracene	839	6.74	13.5	"	"	"	176	98	47-123%	---	---	
Benz(a)anthracene	886	6.74	13.5	"	"	"	239	96	49-126%	---	---	
Benzo(a)pyrene	897	10.1	20.3	"	"	"	262	94	45-129%	---	---	
Benzo(b)fluoranthene	976	10.1	20.3	"	"	"	315	98	45-132%	---	---	
Benzo(k)fluoranthene	822	10.1	20.3	"	"	"	117	104	47-132%	---	---	
Benzo(g,h,i)perylene	699	6.74	13.5	"	"	"	211	72	43-134%	---	---	
Chrysene	933	6.74	13.5	"	"	"	291	95	50-124%	---	---	

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
Matrix Spike (6040004-MS1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 20:49							
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
Dibenz(a,h)anthracene	647	6.74	13.5	ug/kg dry	"	"	32.1	91	45-134%	---	---	
Fluoranthene	2510	6.74	13.5	"	"	"	1300	179	50-127%	---	---	Q-03
Fluorene	1170	6.74	13.5	"	"	"	530	94	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	729	6.74	13.5	"	"	"	189	80	45-133%	---	---	
1-Methylnaphthalene	632	13.5	27.0	"	"	"	83.4	81	40-120%	---	---	
2-Methylnaphthalene	537	13.5	27.0	"	"	"	ND	79	38-122%	---	---	
Naphthalene	589	13.5	27.0	"	"	"	25.8	83	35-123%	---	---	B-02
Phenanthrene	868	6.74	13.5	"	"	"	315	82	50-121%	---	---	
Pyrene	3730	6.74	13.5	"	"	"	2480	185	47-127%	---	---	Q-03
Carbazole	755	10.1	20.3	"	"	"	24.7	108	50-122%	---	---	
Dibenzofuran	863	6.74	13.5	"	"	"	171	102	44-120%	---	---	
4-Chloro-3-methylphenol	633	67.4	135	"	"	"	ND	94	45-122%	---	---	
2-Chlorophenol	535	33.8	67.4	"	"	"	ND	79	34-121%	---	---	
2,4-Dichlorophenol	581	33.8	67.4	"	"	"	ND	86	40-122%	---	---	
2,4-Dimethylphenol	538	33.8	67.4	"	"	"	ND	80	30-127%	---	---	
2,4-Dinitrophenol	372	169	338	"	"	"	ND	55	5-137%	---	---	
4,6-Dinitro-2-methylphenol	466	169	338	"	"	"	ND	69	29-132%	---	---	
2-Methylphenol	560	16.9	33.8	"	"	"	ND	83	32-122%	---	---	
3+4-Methylphenol(s)	579	16.9	33.8	"	"	"	ND	86	34-120%	---	---	
2-Nitrophenol	504	67.4	135	"	"	"	ND	75	36-123%	---	---	
4-Nitrophenol	723	67.4	135	"	"	"	ND	107	30-132%	---	---	
Pentachlorophenol (PCP)	660	67.4	135	"	"	"	ND	98	25-133%	---	---	
Phenol	522	13.5	27.0	"	"	"	14.5	75	34-120%	---	---	
2,3,4,6-Tetrachlorophenol	709	33.8	67.4	"	"	"	ND	105	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	685	33.8	67.4	"	"	"	ND	101	40-120%	---	---	
2,4,5-Trichlorophenol	666	33.8	67.4	"	"	"	ND	99	41-124%	---	---	
2,4,6-Trichlorophenol	613	33.8	67.4	"	"	"	ND	91	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	792	101	203	"	"	"	ND	117	51-133%	---	---	
Butyl benzyl phthalate	713	67.4	135	"	"	"	ND	106	48-132%	---	---	
Diethylphthalate	651	67.4	135	"	"	"	ND	96	50-124%	---	---	

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AMENDED REPORT

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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 22:00

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 6040004 - EPA 3546									**Sediment**			
Matrix Spike (6040004-MS1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 20:49							
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
Dimethylphthalate	619	67.4	135	ug/kg dry	"	"	ND	92	48-124%	---	---	
Di-n-butylphthalate	677	67.4	135	"	"	"	ND	100	51-128%	---	---	
Di-n-octyl phthalate	831	67.4	135	"	"	"	ND	123	44-140%	---	---	
N-Nitrosodimethylamine	391	16.9	33.8	"	"	"	ND	58	23-120%	---	---	
N-Nitroso-di-n-propylamine	534	16.9	33.8	"	"	"	ND	79	36-120%	---	---	
N-Nitrosodiphenylamine	693	16.9	33.8	"	"	"	ND	103	38-127%	---	---	
Bis(2-Chloroethoxy) methane	482	16.9	33.8	"	"	"	ND	71	36-121%	---	---	
Bis(2-Chloroethyl) ether	448	16.9	33.8	"	"	"	ND	66	31-120%	---	---	
Bis(2-Chloroisopropyl) ether	481	16.9	33.8	"	"	"	ND	71	33-131%	---	---	
Hexachlorobenzene	618	6.74	13.5	"	"	"	ND	91	44-122%	---	---	
Hexachlorobutadiene	498	16.9	33.8	"	"	"	ND	74	32-123%	---	---	
Hexachlorocyclopentadiene	130	33.8	67.4	"	"	"	ND	19	5-140%	---	---	
Hexachloroethane	408	16.9	33.8	"	"	"	ND	60	28-120%	---	---	
2-Chloronaphthalene	550	6.74	13.5	"	"	"	ND	81	41-120%	---	---	
1,2-Dichlorobenzene	476	16.9	33.8	"	"	"	ND	71	33-120%	---	---	
1,3-Dichlorobenzene	460	16.9	33.8	"	"	"	ND	68	30-120%	---	---	
1,4-Dichlorobenzene	460	16.9	33.8	"	"	"	ND	68	31-120%	---	---	
1,2,4-Trichlorobenzene	510	16.9	33.8	"	"	"	ND	75	34-120%	---	---	
4-Bromophenyl phenyl ether	645	16.9	33.8	"	"	"	ND	96	46-124%	---	---	
4-Chlorophenyl phenyl ether	617	16.9	33.8	"	"	"	ND	91	45-121%	---	---	
Aniline	334	33.8	67.4	"	"	"	ND	49	7-120%	---	---	
4-Chloroaniline	232	16.9	33.8	"	"	"	ND	34	16-120%	---	---	
2-Nitroaniline	624	135	270	"	"	"	ND	92	44-127%	---	---	
3-Nitroaniline	487	135	270	"	"	"	ND	72	33-120%	---	---	
4-Nitroaniline	608	135	270	"	"	"	ND	90	35-120%	---	---	
Nitrobenzene	511	67.4	135	"	"	"	ND	76	34-122%	---	---	
2,4-Dinitrotoluene	731	67.4	135	"	"	"	ND	108	48-126%	---	---	

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Philip Nerenberg, Lab Director

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Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:00

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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 6040004 - EPA 3546							**Sediment**					
Matrix Spike (6040004-MS1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 20:49							
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
2,6-Dinitrotoluene	646	67.4	135	ug/kg dry	"	"	ND	96	46-124%	---	---	
Benzoic acid	1710	846	1690	"	"	1350	ND	126	5-140%	---	---	Q-31
Benzyl alcohol	533	33.8	67.4	"	"	675	ND	79	29-122%	---	---	
Isophorone	531	16.9	33.8	"	"	"	ND	79	30-122%	---	---	
Azobenzene (1,2-DPH)	619	16.9	33.8	"	"	"	ND	92	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	724	169	338	"	"	"	ND	107	60-121%	---	---	
3,3'-Dichlorobenzidine	1690	67.4	135	"	"	1350	ND	125	22-121%	---	---	Q-01, Q-41
1,2-Dinitrobenzene	580	169	338	"	"	675	ND	86	44-120%	---	---	
1,3-Dinitrobenzene	605	169	338	"	"	"	ND	90	42-127%	---	---	
1,4-Dinitrobenzene	604	169	338	"	"	"	ND	89	37-132%	---	---	
Pyridine	337	33.8	67.4	"	"	"	ND	50	5-120%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 66 %*	*Limits: 37-122 %*	*Dilution: 4x*
2-Fluorobiphenyl (Surr)	*74 %*	*44-115 %*	*"*
Phenol-d6 (Surr)	*72 %*	*33-122 %*	*"*
p-Terphenyl-d14 (Surr)	*101 %*	*54-127 %*	*"*
2-Fluorophenol (Surr)	*65 %*	*35-115 %*	*"*
2,4,6-Tribromophenol (Surr)	*105 %*	*39-132 %*	*"*

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
Blank (6040004-BLK1)					Prepared: 04/01/16 07:07 Analyzed: 04/01/16 12:16							
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	6.25	12.5	"	"	---	---	---	---	---	---	
2,6-Dimethylnaphthalene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
1,6,7-Trimethylnaphthalene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Fluorene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
1-Methylphenanthrene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Pyrene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Chrysene	ND	6.25	12.5	"	"	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)			*Recovery: 99 %*	*Limits: 40-120 %*			*Dilution: 1x*					
Benzo(a)pyrene-d12 (Surr)			*100 %*	*40-120 %*			*"*					
LCS (6040004-BS2)					Prepared: 04/01/16 07:08 Analyzed: 04/01/16 13:29							

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
LCS (6040004-BS2)					Prepared: 04/01/16 07:08 Analyzed: 04/01/16 13:29							
GC/MS Scan												
2-Methylnaphthalene	551	13.3	26.7	ug/kg wet	2	533	---	103	38-122%	---	---	
2,6-Dimethylnaphthalene	533	13.3	26.7	"	"	"	---	100	40-125%	---	---	
1,6,7-Trimethylnaphthalene	546	13.3	26.7	"	"	"	---	102	45-125%	---	---	
Fluorene	538	13.3	26.7	"	"	"	---	101	43-125%	---	---	
1-Methylphenanthrene	531	13.3	26.7	"	"	"	---	100	45-125%	---	---	
Pyrene	537	13.3	26.7	"	"	"	---	101	47-127%	---	---	
Chrysene	535	13.3	26.7	"	"	"	---	100	50-124%	---	---	
Surr: Acenaphthylene-d8 (Surr)			*Recovery: 96 %*	*Limits: 40-120 %*			*Dilution: 2x*					
Benzo(a)pyrene-d12 (Surr)			*97 %*	*40-120 %*			*"*					
Duplicate (6040004-DUP1)					Prepared: 04/01/16 07:07 Analyzed: 04/04/16 11:18							
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
GC/MS Scan												
C1-Chrysenes/Benz(a)anthracenes	**592**	62.8	62.8	ug/kg dry	4	---	196	---	---	100	30%	Q-04
C1-Fluoranthrenes/Pyrenes	**66.3**	62.8	62.8	"	"	---	179	---	---	92	30%	Q-04
C1-Fluorenes	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
C1-Phenanthrenes/Anthracenes	**302**	62.8	62.8	"	"	---	111	---	---	93	30%	Q-04
C2-Chrysenes/Benz(a)anthracenes	**347**	62.8	62.8	"	"	---	104	---	---	108	30%	Q-04
C2-Fluorenes	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
C2-Naphthalenes	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
C2-Phenanthrenes/Anthracenes	**278**	62.8	62.8	"	"	---	87.9	---	---	104	30%	Q-04
C3-Chrysenes/Benz(a)anthracenes	**186**	62.8	62.8	"	"	---	65.9	---	---	95	30%	Q-04
C3-Fluorenes	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
C3-Naphthalenes	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
C3-Phenanthrenes/Anthracenes	**156**	62.8	62.8	"	"	---	ND	---	---		30%	
C4-Chrysenes/Benz(a)anthracenes	ND	126	126	"	"	---	ND	---	---	---	30%	
C4-Naphthalenes	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	

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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 22:00

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 6040004 - EPA 3546							**Sediment**					
Duplicate (6040004-DUP1)					Prepared: 04/01/16 07:07 Analyzed: 04/04/16 11:18							
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
C4-Phenanthrenes/Anthracenes	ND	126	126	ug/kg dry	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
2,6-Dimethylnaphthalene	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
1,6,7-Trimethylnaphthalene	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
Fluorene	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
1-Methylphenanthrene	ND	62.8	62.8	"	"	---	ND	---	---	---	30%	
Pyrene	**685**	62.8	62.8	"	"	---	405	---	---	51	30%	NR
Chrysene	**583**	62.8	62.8	"	"	---	287	---	---	68	30%	NR
Surr: Acenaphthylene-d8 (Surr)			*Recovery: 76 %*	*Limits: 40-120 %*			*Dilution: 4x*					
Benzo(a)pyrene-d12 (Surr)			*96 %*	*40-120 %*			*"*					
Matrix Spike (6040004-MS2)					Prepared: 04/01/16 07:08 Analyzed: 04/01/16 21:25							
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
GC/MS Scan												
2-Methylnaphthalene	1140	33.3	66.7	ug/kg dry	4	667	ND	171	38-122%	---	---	Q-01
2,6-Dimethylnaphthalene	1010	33.3	66.7	"	"	"	ND	151	40-125%	---	---	Q-01
1,6,7-Trimethylnaphthalene	1160	33.3	66.7	"	"	"	49.9	166	45-125%	---	---	Q-01
Fluorene	2630	33.3	66.7	"	"	"	543	313	43-125%	---	---	Q-03
1-Methylphenanthrene	2130	33.3	66.7	"	"	"	133	299	45-125%	---	---	Q-02
Pyrene	23900	33.3	66.7	"	"	"	2550	3200	47-127%	---	---	E, Q-03
Chrysene	9030	33.3	66.7	"	"	"	293	1310	50-124%	---	---	E, Q-03
Surr: Acenaphthylene-d8 (Surr)			*Recovery: 89 %*	*Limits: 40-120 %*			*Dilution: 4x*					
Benzo(a)pyrene-d12 (Surr)			*93 %*	*40-120 %*			*"*					

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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 22:00

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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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 22:00

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	"	---	---	
Duplicate (6040194-DUP1)					Prepared: 04/07/16 14:45		Analyzed: 04/11/16 12:21					
QC Source Sample: 5237-160328-DC-SED070 (A6C1076-08)												
EPA 6020A												
Aluminum	**4870**	14.7	29.4	mg/kg dry	5	---	5760	---	---	17	40%	
Antimony	ND	0.294	0.589	"	"	---	ND	---	---	---	40%	
Arsenic	**0.789**	0.589	2.36	"	"	---	2.41	---	---	101	40%	Q-05, J
Barium	**70.4**	0.294	0.589	"	"	---	86.0	---	---	20	40%	
Beryllium	**0.318**	0.0589	0.118	"	"	---	0.449	---	---	34	40%	
Cadmium	ND	0.294	0.589	"	"	---	ND	---	---	---	40%	
Calcium	**2760**	29.4	58.9	"	"	---	2780	---	---	0.6	40%	
Chromium	**8.66**	1.18	2.36	"	"	---	8.40	---	---	3	40%	

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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 22:00

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**					
Duplicate (6040194-DUP1)					Prepared: 04/07/16 14:45		Analyzed: 04/11/16 12:21					
QC Source Sample: 5237-160328-DC-SED070 (A6C1076-08)												
Copper	**8.85**	0.589	1.18	mg/kg dry	"	---	10.8	---	---	20	40%	
Iron	**15200**	29.4	58.9	"	"	---	24400	---	---	47	40%	Q-04
Lead	**5.17**	0.294	0.589	"	"	---	7.62	---	---	38	40%	
Magnesium	**978**	14.7	29.4	"	"	---	1270	---	---	26	40%	
Nickel	**4.28**	0.589	1.18	"	"	---	5.67	---	---	28	40%	
Potassium	**213**	29.4	58.9	"	"	---	237	---	---	11	40%	
Silver	ND	0.294	0.589	"	"	---	ND	---	---	---	40%	
Sodium	**101**	29.4	58.9	"	"	---	102	---	---	1	40%	
Thallium	ND	0.294	0.589	"	"	---	ND	---	---	---	40%	
Vanadium	**44.8**	0.589	1.18	"	"	---	70.2	---	---	44	40%	Q-04
Zinc	**37.9**	1.18	2.36	"	"	---	53.5	---	---	34	40%	
Duplicate (6040194-DUP2)					Prepared: 04/07/16 14:45		Analyzed: 04/11/16 23:17					
QC Source Sample: 5237-160328-DC-SED070 (A6C1076-08RE1)												
EPA 6020A												
Mercury	ND	0.0236	0.0471	mg/kg dry	5	---	ND	---	---	---	40%	Q-16
Selenium	ND	0.589	1.18	"	"	---	ND	---	---	---	40%	Q-16
Duplicate (6040194-DUP3)					Prepared: 04/07/16 14:45		Analyzed: 04/12/16 15:20					
QC Source Sample: 5237-160328-DC-SED070 (A6C1076-08RE1)												
EPA 6020A												
Manganese	**365**	2.94	5.89	mg/kg dry	50	---	630	---	---	53	40%	Q-04, Q-16
Matrix Spike (6040194-MS1)					Prepared: 04/07/16 14:45		Analyzed: 04/11/16 12:24					
QC Source Sample: 5237-160328-DC-SED070 (A6C1076-08)												
EPA 6020A												
Aluminum	9900	14.9	29.8	mg/kg dry	5	2980	5760	139	75-125%	---	---	Q-03
Antimony	13.1	0.298	0.596	"	"	14.9	ND	88	"	---	---	
Arsenic	29.8	0.596	2.38	"	"	29.8	2.41	92	"	---	---	
Barium	118	0.298	0.596	"	"	"	86.0	109	"	---	---	
Beryllium	15.4	0.0596	0.119	"	"	14.9	0.449	100	"	---	---	

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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 22:00

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**					
Matrix Spike (6040194-MS1)					Prepared: 04/07/16 14:45 Analyzed: 04/11/16 12:24							
QC Source Sample: 5237-160328-DC-SED070 (A6C1076-08)												
Cadmium	30.2	0.298	0.596	mg/kg dry	"	29.8	ND	102	"	---	---	
Calcium	5850	29.8	59.6	"	"	2980	2780	103	"	---	---	
Chromium	38.7	1.19	2.38	"	"	29.8	8.40	102	"	---	---	
Copper	40.7	0.596	1.19	"	"	"	10.8	100	"	---	---	
Iron	25000	29.8	59.6	"	"	2980	24400	22	"	---	---	Q-03
Lead	43.8	0.298	0.596	"	"	29.8	7.62	121	"	---	---	
Magnesium	3970	14.9	29.8	"	"	2980	1270	91	"	---	---	
Nickel	36.4	0.596	1.19	"	"	29.8	5.67	103	"	---	---	
Potassium	2880	29.8	59.6	"	"	2980	237	89	"	---	---	
Silver	15.6	0.298	0.596	"	"	14.9	ND	105	"	---	---	
Sodium	2600	29.8	59.6	"	"	2980	102	84	"	---	---	
Thallium	14.7	0.298	0.596	"	"	14.9	ND	98	"	---	---	
Vanadium	111	0.596	1.19	"	"	29.8	70.2	138	"	---	---	Q-03
Zinc	91.5	1.19	2.38	"	"	"	53.5	128	"	---	---	Q-03
Matrix Spike (6040194-MS2)					Prepared: 04/07/16 14:45 Analyzed: 04/11/16 12:54							
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
EPA 6020A												
Aluminum	10700	16.0	32.0	mg/kg dry	5	3200	7500	99	75-125%	---	---	
Antimony	12.2	0.320	0.641	"	"	16.0	ND	76	"	---	---	
Barium	183	0.320	0.641	"	"	32.0	143	126	"	---	---	Q-03
Beryllium	16.9	0.0641	0.128	"	"	16.0	0.496	102	"	---	---	
Cadmium	31.9	0.320	0.641	"	"	32.0	0.415	98	"	---	---	
Calcium	7150	32.0	64.1	"	"	3200	3920	101	"	---	---	
Chromium	39.7	1.28	2.56	"	"	32.0	10.7	90	"	---	---	
Copper	44.0	0.641	1.28	"	"	"	12.1	100	"	---	---	
Lead	36.9	0.320	0.641	"	"	"	7.48	92	"	---	---	
Magnesium	4000	16.0	32.0	"	"	3200	1340	83	"	---	---	
Nickel	36.0	0.641	1.28	"	"	32.0	6.45	92	"	---	---	
Potassium	3020	32.0	64.1	"	"	3200	300	85	"	---	---	

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AMENDED REPORT

12232 S.W. Garden Place
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503-718-2323 Phone
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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 22:00

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**					
Matrix Spike (6040194-MS2)					Prepared: 04/07/16 14:45		Analyzed: 04/11/16 12:54					
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
Silver	16.0	0.320	0.641	mg/kg dry	"	16.0	ND	100	"	---	---	
Sodium	2950	32.0	64.1	"	"	3200	297	83	"	---	---	
Thallium	15.3	0.320	0.641	"	"	16.0	ND	96	"	---	---	
Vanadium	163	0.641	1.28	"	"	32.0	130	102	"	---	---	
Zinc	99.1	1.28	2.56	"	"	"	70.6	89	"	---	---	
Matrix Spike (6040194-MS3)					Prepared: 04/07/16 14:45		Analyzed: 04/12/16 00:01					
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22RE1)												
EPA 6020A												
Arsenic	30.2	0.320	1.28	mg/kg dry	5	32.0	0.993	91	75-125%	---	---	Q-16
Mercury	0.613	0.0256	0.0513	"	"	0.641	ND	96	"	---	---	Q-16
Selenium	17.1	0.641	1.28	"	"	16.0	ND	107	"	---	---	Q-16, Q-41
Matrix Spike (6040194-MS4)					Prepared: 04/07/16 14:45		Analyzed: 04/11/16 23:20					
QC Source Sample: 5237-160328-DC-SED070 (A6C1076-08RE1)												
EPA 6020A												
Mercury	0.581	0.0238	0.0477	mg/kg dry	5	0.596	ND	98	75-125%	---	---	Q-16
Selenium	15.6	0.596	1.19	"	"	14.9	ND	105	"	---	---	Q-16
Matrix Spike (6040194-MS5)					Prepared: 04/07/16 14:45		Analyzed: 04/12/16 15:23					
QC Source Sample: 5237-160328-DC-SED070 (A6C1076-08RE1)												
EPA 6020A												
Manganese	575	2.98	5.96	mg/kg dry	50	29.8	630	-187	75-125%	---	---	Q-03, Q-16
Matrix Spike (6040194-MS6)					Prepared: 04/07/16 14:45		Analyzed: 04/12/16 15:38					
QC Source Sample: 5237-160328-DC-SED087 (A6C1076-22)												
EPA 6020A												
Iron	44800	161	321	mg/kg dry	50	3210	39500	165	75-125%	---	---	Q-03, Q-16
Manganese	784	3.21	6.42	"	"	32.1	535	774	"	---	---	Q-03, Q-16

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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 22:00

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 6040120 - PSEP TOC												**Sediment**
Blank (6040120-BLK1)					Prepared: 04/05/16 18:15		Analyzed: 04/07/16 16:20					
SM 5310B MOD												
Total Organic Carbon	ND	100	200	mg/kg	1	---	---	---	---	---	---	
LCS (6040120-BS1)					Prepared: 04/05/16 18:15		Analyzed: 04/07/16 16:20					
SM 5310B MOD												
Total Organic Carbon	9500			mg/kg	1	10000	---	95	85-115%	---	---	
Duplicate (6040120-DUP1)					Prepared: 04/05/16 18:15		Analyzed: 04/07/16 16:20					
QC Source Sample: 5237-160328-DC-SED065 (A6C1076-04)												
SM 5310B MOD												
Total Organic Carbon	**11000**	100	200	mg/kg	1	---	11000	---	---	3	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 22:00

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 6040121 - PSEP TOC												**Sediment**
Blank (6040121-BLK1)					Prepared: 04/05/16 18:15		Analyzed: 04/08/16 13:30					
SM 5310B MOD												
Total Organic Carbon	ND	100	200	mg/kg	1	---	---	---	---	---	---	
LCS (6040121-BS1)					Prepared: 04/05/16 18:15		Analyzed: 04/08/16 13:30					
SM 5310B MOD												
Total Organic Carbon	9700			mg/kg	1	10000	---	97	85-115%	---	---	

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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 22:00

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 6040053 - Method Prep: Non-Aq								**Soil**				
Blank (6040053-BLK1)					Prepared: 04/04/16 10:05		Analyzed: 04/06/16 19:15					
SM4500-NH3 Mod												
Ammonia as N	ND	0.100	0.200	mg/kg wet	1	---	---	---	---	---	---	
LCS (6040053-BS1)					Prepared: 04/04/16 10:05		Analyzed: 04/06/16 19:15					
SM4500-NH3 Mod												
Ammonia as N	1.92	0.100	0.200	mg/kg wet	1	2.00	---	96	90-110%	---	---	
Duplicate (6040053-DUP1)					Prepared: 04/04/16 10:05		Analyzed: 04/06/16 19:15					
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
SM4500-NH3 Mod												
Ammonia as N	**0.858**	0.118	0.235	mg/kg dry	1	---	0.817	---	---	5	10%	
Matrix Spike (6040053-MS1)					Prepared: 04/04/16 10:05		Analyzed: 04/06/16 19:15					
QC Source Sample: 5237-160328-DC-SED063 (A6C1076-02)												
SM4500-NH3 Mod												
Ammonia as N	3.17	0.123	0.246	mg/kg dry	1	2.46	0.817	96	90-110%	---	---	

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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 22:00

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 6031007 - Total Solids (Dry Weight)											**Soil**	
Duplicate (6031007-DUP1)					Prepared: 03/31/16 09:45 Analyzed: 04/01/16 09:22							
QC Source Sample: 5237-160328-DC-SED068 (A6C1076-06)												
EPA 8000C												
% Solids	**81.4**	1.00	1.00	% by Weight	1	---	74.3	---	---	9	10%	

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

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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 22:00

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: 6031009							
A6C1076-02	Sediment	NWTPH-Dx	03/28/16 10:30	03/31/16 10:03	11.47g/5mL	10g/5mL	0.87
A6C1076-04	Sediment	NWTPH-Dx	03/28/16 11:00	03/31/16 10:03	11.22g/5mL	10g/5mL	0.89
A6C1076-06	Sediment	NWTPH-Dx	03/28/16 11:30	03/31/16 10:03	11.08g/5mL	10g/5mL	0.90
A6C1076-08	Sediment	NWTPH-Dx	03/28/16 12:05	03/31/16 10:03	11.3g/5mL	10g/5mL	0.89
A6C1076-10	Sediment	NWTPH-Dx	03/28/16 12:30	03/31/16 10:03	11.91g/5mL	10g/5mL	0.84
A6C1076-12RE1	Sediment	NWTPH-Dx	03/28/16 12:50	03/31/16 10:03	11.4g/5mL	10g/5mL	0.88
A6C1076-14	Sediment	NWTPH-Dx	03/28/16 13:15	03/31/16 10:03	11.97g/5mL	10g/5mL	0.84
A6C1076-16	Sediment	NWTPH-Dx	03/28/16 13:15	03/31/16 10:03	11.45g/5mL	10g/5mL	0.87
A6C1076-18	Sediment	NWTPH-Dx	03/28/16 13:45	03/31/16 10:03	11.98g/5mL	10g/5mL	0.84
A6C1076-20	Sediment	NWTPH-Dx	03/28/16 14:15	03/31/16 10:03	11.28g/5mL	10g/5mL	0.89
A6C1076-22	Sediment	NWTPH-Dx	03/28/16 14:45	03/31/16 10:03	11.4g/5mL	10g/5mL	0.88

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: 6030957							
A6C1076-01	Sediment	NWTPH-Gx (MS)	03/28/16 10:30	03/28/16 10:30	4.73g/5mL	5g/5mL	1.06
A6C1076-03	Sediment	NWTPH-Gx (MS)	03/28/16 11:00	03/28/16 11:00	5.08g/5mL	5g/5mL	0.98
A6C1076-05	Sediment	NWTPH-Gx (MS)	03/28/16 11:30	03/28/16 11:30	5.38g/5mL	5g/5mL	0.93
A6C1076-07	Sediment	NWTPH-Gx (MS)	03/28/16 12:05	03/28/16 12:05	6.06g/5mL	5g/5mL	0.83
A6C1076-09	Sediment	NWTPH-Gx (MS)	03/28/16 12:30	03/28/16 12:30	3.55g/5mL	5g/5mL	1.41
A6C1076-11	Sediment	NWTPH-Gx (MS)	03/28/16 12:50	03/28/16 12:50	3.98g/5mL	5g/5mL	1.26
A6C1076-13	Sediment	NWTPH-Gx (MS)	03/28/16 13:15	03/28/16 13:15	5.77g/5mL	5g/5mL	0.87
A6C1076-15	Sediment	NWTPH-Gx (MS)	03/28/16 13:15	03/28/16 13:15	5.83g/5mL	5g/5mL	0.86
A6C1076-17	Sediment	NWTPH-Gx (MS)	03/28/16 13:45	03/28/16 13:45	5.25g/5mL	5g/5mL	0.95
A6C1076-19	Sediment	NWTPH-Gx (MS)	03/28/16 14:15	03/28/16 14:15	5.88g/5mL	5g/5mL	0.85
A6C1076-21	Sediment	NWTPH-Gx (MS)	03/28/16 14:45	03/28/16 14:45	5.42g/5mL	5g/5mL	0.92

BTEX Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6030957							
A6C1076-01	Sediment	5035/8260B	03/28/16 10:30	03/28/16 10:30	4.73g/5mL	5g/5mL	1.06

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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 22:00

SAMPLE PREPARATION INFORMATION

BTEX Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6C1076-03	Sediment	5035/8260B	03/28/16 11:00	03/28/16 11:00	5.08g/5mL	5g/5mL	0.98
A6C1076-05	Sediment	5035/8260B	03/28/16 11:30	03/28/16 11:30	5.38g/5mL	5g/5mL	0.93
A6C1076-07	Sediment	5035/8260B	03/28/16 12:05	03/28/16 12:05	6.06g/5mL	5g/5mL	0.83
A6C1076-09	Sediment	5035/8260B	03/28/16 12:30	03/28/16 12:30	3.55g/5mL	5g/5mL	1.41
A6C1076-11	Sediment	5035/8260B	03/28/16 12:50	03/28/16 12:50	3.98g/5mL	5g/5mL	1.26
A6C1076-13	Sediment	5035/8260B	03/28/16 13:15	03/28/16 13:15	5.77g/5mL	5g/5mL	0.87
A6C1076-15	Sediment	5035/8260B	03/28/16 13:15	03/28/16 13:15	5.83g/5mL	5g/5mL	0.86
A6C1076-17	Sediment	5035/8260B	03/28/16 13:45	03/28/16 13:45	5.25g/5mL	5g/5mL	0.95
A6C1076-19	Sediment	5035/8260B	03/28/16 14:15	03/28/16 14:15	5.88g/5mL	5g/5mL	0.85
A6C1076-21	Sediment	5035/8260B	03/28/16 14:45	03/28/16 14:45	5.42g/5mL	5g/5mL	0.92

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: 6030957							
A6C1076-11	Sediment	5035/8260B	03/28/16 12:50	03/28/16 12:50	3.98g/5mL	5g/5mL	1.26
A6C1076-21	Sediment	5035/8260B	03/28/16 14:45	03/28/16 14:45	5.42g/5mL	5g/5mL	0.92

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: 6040118							
A6C1076-02	Sediment	EPA 9056A	03/28/16 10:30	04/05/16 17:05	5.166g/50mL	5g/50mL	0.97
A6C1076-04	Sediment	EPA 9056A	03/28/16 11:00	04/05/16 17:05	5.1083g/50mL	5g/50mL	0.98
A6C1076-06	Sediment	EPA 9056A	03/28/16 11:30	04/05/16 17:05	5.142g/50mL	5g/50mL	0.97
A6C1076-08	Sediment	EPA 9056A	03/28/16 12:05	04/05/16 17:05	5.1936g/50mL	5g/50mL	0.96
A6C1076-10	Sediment	EPA 9056A	03/28/16 12:30	04/05/16 17:05	5.0825g/50mL	5g/50mL	0.98
A6C1076-12	Sediment	EPA 9056A	03/28/16 12:50	04/05/16 17:05	5.0458g/50mL	5g/50mL	0.99
A6C1076-14	Sediment	EPA 9056A	03/28/16 13:15	04/05/16 17:05	5.0984g/50mL	5g/50mL	0.98
A6C1076-16	Sediment	EPA 9056A	03/28/16 13:15	04/05/16 17:05	5.1292g/50mL	5g/50mL	0.98
A6C1076-18	Sediment	EPA 9056A	03/28/16 13:45	04/05/16 17:05	5.1731g/50mL	5g/50mL	0.97
A6C1076-20	Sediment	EPA 9056A	03/28/16 14:15	04/05/16 17:05	5.0509g/50mL	5g/50mL	0.99
A6C1076-22	Sediment	EPA 9056A	03/28/16 14:45	04/05/16 17:05	5.1978g/50mL	5g/50mL	0.96

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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 22:00

SAMPLE PREPARATION INFORMATION

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							
A6C1076-02	Sediment	EPA 9013M/9014	03/28/16 10:30	04/11/16 09:44	2.5993g/50mL	2.5g/50mL	0.96
A6C1076-04	Sediment	EPA 9013M/9014	03/28/16 11:00	04/11/16 09:44	2.583g/50mL	2.5g/50mL	0.97
A6C1076-06	Sediment	EPA 9013M/9014	03/28/16 11:30	04/11/16 09:44	2.5853g/50mL	2.5g/50mL	0.97
A6C1076-08	Sediment	EPA 9013M/9014	03/28/16 12:05	04/11/16 09:44	2.5432g/50mL	2.5g/50mL	0.98
A6C1076-10	Sediment	EPA 9013M/9014	03/28/16 12:30	04/11/16 09:44	2.5035g/50mL	2.5g/50mL	1.00
A6C1076-12	Sediment	EPA 9013M/9014	03/28/16 12:50	04/11/16 09:44	2.5408g/50mL	2.5g/50mL	0.98
A6C1076-14	Sediment	EPA 9013M/9014	03/28/16 13:15	04/11/16 09:44	2.5586g/50mL	2.5g/50mL	0.98
A6C1076-16	Sediment	EPA 9013M/9014	03/28/16 13:15	04/11/16 09:44	2.518g/50mL	2.5g/50mL	0.99
A6C1076-18	Sediment	EPA 9013M/9014	03/28/16 13:45	04/11/16 09:44	2.5703g/50mL	2.5g/50mL	0.97
A6C1076-20	Sediment	EPA 9013M/9014	03/28/16 14:15	04/11/16 09:44	2.556g/50mL	2.5g/50mL	0.98
A6C1076-22	Sediment	EPA 9013M/9014	03/28/16 14:45	04/11/16 09:44	2.5816g/50mL	2.5g/50mL	0.97

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: 6040004							
A6C1076-02	Sediment	EPA 8270D	03/28/16 10:30	04/01/16 07:07	15.68g/2mL	15g/2mL	0.96
A6C1076-04	Sediment	EPA 8270D	03/28/16 11:00	04/01/16 07:07	15.34g/2mL	15g/2mL	0.98
A6C1076-06	Sediment	EPA 8270D	03/28/16 11:30	04/01/16 07:07	15.63g/2mL	15g/2mL	0.96
A6C1076-08RE1	Sediment	EPA 8270D	03/28/16 12:05	04/01/16 07:07	15.33g/2mL	15g/2mL	0.98
A6C1076-10	Sediment	EPA 8270D	03/28/16 12:30	04/01/16 07:07	15.57g/2mL	15g/2mL	0.96
A6C1076-12RE1	Sediment	EPA 8270D	03/28/16 12:50	04/01/16 07:07	15.45g/2mL	15g/2mL	0.97
A6C1076-14RE1	Sediment	EPA 8270D	03/28/16 13:15	04/01/16 07:07	15.41g/2mL	15g/2mL	0.97
A6C1076-16RE1	Sediment	EPA 8270D	03/28/16 13:15	04/01/16 07:07	15.36g/2mL	15g/2mL	0.98
A6C1076-18	Sediment	EPA 8270D	03/28/16 13:45	04/01/16 07:07	15.28g/2mL	15g/2mL	0.98
A6C1076-20	Sediment	EPA 8270D	03/28/16 14:15	04/01/16 07:07	15.38g/2mL	15g/2mL	0.98
A6C1076-22	Sediment	EPA 8270D	03/28/16 14:45	04/01/16 07:07	15.44g/2mL	15g/2mL	0.97

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: 6040004							
A6C1076-02	Sediment	GC/MS Scan	03/28/16 10:30	04/01/16 07:07	15.68g/2mL	10g/2mL	0.64

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

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 22:00

SAMPLE PREPARATION INFORMATION

Alkylated PAH Homologs by 8270D Modified

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6C1076-04	Sediment	GC/MS Scan	03/28/16 11:00	04/01/16 07:07	15.34g/2mL	10g/2mL	0.65
A6C1076-06	Sediment	GC/MS Scan	03/28/16 11:30	04/01/16 07:07	15.63g/2mL	10g/2mL	0.64
A6C1076-08RE1	Sediment	GC/MS Scan	03/28/16 12:05	04/01/16 07:07	15.33g/2mL	10g/2mL	0.65
A6C1076-10	Sediment	GC/MS Scan	03/28/16 12:30	04/01/16 07:07	15.57g/2mL	10g/2mL	0.64
A6C1076-12RE1	Sediment	GC/MS Scan	03/28/16 12:50	04/01/16 07:07	15.45g/2mL	10g/2mL	0.65
A6C1076-14RE1	Sediment	GC/MS Scan	03/28/16 13:15	04/01/16 07:07	15.41g/2mL	10g/2mL	0.65
A6C1076-16RE1	Sediment	GC/MS Scan	03/28/16 13:15	04/01/16 07:07	15.36g/2mL	10g/2mL	0.65
A6C1076-18	Sediment	GC/MS Scan	03/28/16 13:45	04/01/16 07:07	15.28g/2mL	10g/2mL	0.65
A6C1076-20	Sediment	GC/MS Scan	03/28/16 14:15	04/01/16 07:07	15.38g/2mL	10g/2mL	0.65
A6C1076-22	Sediment	GC/MS Scan	03/28/16 14:45	04/01/16 07:07	15.44g/2mL	10g/2mL	0.65

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							
A6C1076-02	Sediment	EPA 6020A	03/28/16 10:30	04/07/16 14:45	0.504g/50mL	0.5g/50mL	0.99
A6C1076-02RE1	Sediment	EPA 6020A	03/28/16 10:30	04/07/16 14:45	0.504g/50mL	0.5g/50mL	0.99
A6C1076-04	Sediment	EPA 6020A	03/28/16 11:00	04/07/16 14:45	0.505g/50mL	0.5g/50mL	0.99
A6C1076-04RE1	Sediment	EPA 6020A	03/28/16 11:00	04/07/16 14:45	0.505g/50mL	0.5g/50mL	0.99
A6C1076-06	Sediment	EPA 6020A	03/28/16 11:30	04/07/16 14:45	0.505g/50mL	0.5g/50mL	0.99
A6C1076-06RE1	Sediment	EPA 6020A	03/28/16 11:30	04/07/16 14:45	0.505g/50mL	0.5g/50mL	0.99
A6C1076-08	Sediment	EPA 6020A	03/28/16 12:05	04/07/16 14:45	0.507g/50mL	0.5g/50mL	0.99
A6C1076-08RE1	Sediment	EPA 6020A	03/28/16 12:05	04/07/16 14:45	0.507g/50mL	0.5g/50mL	0.99
A6C1076-10	Sediment	EPA 6020A	03/28/16 12:30	04/07/16 14:45	0.506g/50mL	0.5g/50mL	0.99
A6C1076-10RE1	Sediment	EPA 6020A	03/28/16 12:30	04/07/16 14:45	0.506g/50mL	0.5g/50mL	0.99
A6C1076-12	Sediment	EPA 6020A	03/28/16 12:50	04/07/16 14:45	0.505g/50mL	0.5g/50mL	0.99
A6C1076-12RE1	Sediment	EPA 6020A	03/28/16 12:50	04/07/16 14:45	0.505g/50mL	0.5g/50mL	0.99
A6C1076-14	Sediment	EPA 6020A	03/28/16 13:15	04/07/16 14:45	0.515g/50mL	0.5g/50mL	0.97
A6C1076-14RE1	Sediment	EPA 6020A	03/28/16 13:15	04/07/16 14:45	0.515g/50mL	0.5g/50mL	0.97
A6C1076-16	Sediment	EPA 6020A	03/28/16 13:15	04/07/16 14:45	0.5g/50mL	0.5g/50mL	1.00
A6C1076-16RE1	Sediment	EPA 6020A	03/28/16 13:15	04/07/16 14:45	0.5g/50mL	0.5g/50mL	1.00
A6C1076-18	Sediment	EPA 6020A	03/28/16 13:45	04/07/16 14:45	0.504g/50mL	0.5g/50mL	0.99
A6C1076-18RE1	Sediment	EPA 6020A	03/28/16 13:45	04/07/16 14:45	0.504g/50mL	0.5g/50mL	0.99
A6C1076-20	Sediment	EPA 6020A	03/28/16 14:15	04/07/16 14:45	0.506g/50mL	0.5g/50mL	0.99

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

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 22:00

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6C1076-20RE1	Sediment	EPA 6020A	03/28/16 14:15	04/07/16 14:45	0.506g/50mL	0.5g/50mL	0.99
A6C1076-22	Sediment	EPA 6020A	03/28/16 14:45	04/07/16 14:45	0.514g/50mL	0.5g/50mL	0.97
A6C1076-22RE1	Sediment	EPA 6020A	03/28/16 14:45	04/07/16 14:45	0.514g/50mL	0.5g/50mL	0.97

Conventional Chemistry Parameters

Prep: PSEP TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6040120							
A6C1076-02	Sediment	SM 5310B MOD	03/28/16 10:30	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-04	Sediment	SM 5310B MOD	03/28/16 11:00	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-06	Sediment	SM 5310B MOD	03/28/16 11:30	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-08	Sediment	SM 5310B MOD	03/28/16 12:05	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-10	Sediment	SM 5310B MOD	03/28/16 12:30	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-12	Sediment	SM 5310B MOD	03/28/16 12:50	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-14	Sediment	SM 5310B MOD	03/28/16 13:15	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-16	Sediment	SM 5310B MOD	03/28/16 13:15	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-18	Sediment	SM 5310B MOD	03/28/16 13:45	04/05/16 18:15	5g/5g	5g/5g	NA
A6C1076-20	Sediment	SM 5310B MOD	03/28/16 14:15	04/05/16 18:15	5g/5g	5g/5g	NA
Batch: 6040121							
A6C1076-22	Sediment	SM 5310B MOD	03/28/16 14:45	04/05/16 18:15	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: 6040053							
A6C1076-02	Sediment	SM4500-NH3 Mod	03/28/16 10:30	04/04/16 10:05	5.2725g/50mL	5g/50mL	0.95
A6C1076-04	Sediment	SM4500-NH3 Mod	03/28/16 11:00	04/04/16 10:05	5.3457g/50mL	5g/50mL	0.94
A6C1076-06	Sediment	SM4500-NH3 Mod	03/28/16 11:30	04/04/16 10:05	5.1422g/50mL	5g/50mL	0.97
A6C1076-08	Sediment	SM4500-NH3 Mod	03/28/16 12:05	04/04/16 10:05	5.223g/50mL	5g/50mL	0.96
A6C1076-10	Sediment	SM4500-NH3 Mod	03/28/16 12:30	04/04/16 10:05	5.4739g/50mL	5g/50mL	0.91
A6C1076-12	Sediment	SM4500-NH3 Mod	03/28/16 12:50	04/04/16 10:05	5.1033g/50mL	5g/50mL	0.98
A6C1076-14	Sediment	SM4500-NH3 Mod	03/28/16 13:15	04/04/16 10:05	5.1952g/50mL	5g/50mL	0.96
A6C1076-16	Sediment	SM4500-NH3 Mod	03/28/16 13:15	04/04/16 10:05	5.7529g/50mL	5g/50mL	0.87
A6C1076-18	Sediment	SM4500-NH3 Mod	03/28/16 13:45	04/04/16 10:05	5.0513g/50mL	5g/50mL	0.99

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Labs

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 22:00

SAMPLE PREPARATION INFORMATION

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
A6C1076-20	Sediment	SM4500-NH3 Mod	03/28/16 14:15	04/04/16 10:05	5.314g/50mL	5g/50mL	0.94
A6C1076-22	Sediment	SM4500-NH3 Mod	03/28/16 14:45	04/04/16 10:05	5.0237g/50mL	5g/50mL	1.00

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6031007							
A6C1076-02	Sediment	EPA 8000C	03/28/16 10:30	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-04	Sediment	EPA 8000C	03/28/16 11:00	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-06	Sediment	EPA 8000C	03/28/16 11:30	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-08	Sediment	EPA 8000C	03/28/16 12:05	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-10	Sediment	EPA 8000C	03/28/16 12:30	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-12	Sediment	EPA 8000C	03/28/16 12:50	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-14	Sediment	EPA 8000C	03/28/16 13:15	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-16	Sediment	EPA 8000C	03/28/16 13:15	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-18	Sediment	EPA 8000C	03/28/16 13:45	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-20	Sediment	EPA 8000C	03/28/16 14:15	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-22	Sediment	EPA 8000C	03/28/16 14:45	03/31/16 09:47	1N/A/1N/A	1N/A/1N/A	NA
Batch: 6040069							
A6C1076-01	Sediment	EPA 8000C	03/28/16 10:30	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-03	Sediment	EPA 8000C	03/28/16 11:00	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-05	Sediment	EPA 8000C	03/28/16 11:30	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-07	Sediment	EPA 8000C	03/28/16 12:05	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-09	Sediment	EPA 8000C	03/28/16 12:30	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-11	Sediment	EPA 8000C	03/28/16 12:50	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-13	Sediment	EPA 8000C	03/28/16 13:15	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-15	Sediment	EPA 8000C	03/28/16 13:15	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-17	Sediment	EPA 8000C	03/28/16 13:45	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-19	Sediment	EPA 8000C	03/28/16 14:15	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA
A6C1076-21	Sediment	EPA 8000C	03/28/16 14:45	04/04/16 14:19	1N/A/1N/A	1N/A/1N/A	NA

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Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Labs

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 22:00

Notes and Definitions

Qualifiers:

A-01	% solids data copied from corresponding even numbered sample IDs to allow dry wt. correction of 5035 Gx analysis.
B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
E	Estimated Value. The result is above the calibration range of the instrument.
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-11	The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
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.
NR	Not Reported.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-04	Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
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-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-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.
S-06	Surrogate recovery is outside of established control limits.

Notes and Conventions:

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

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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 22:00

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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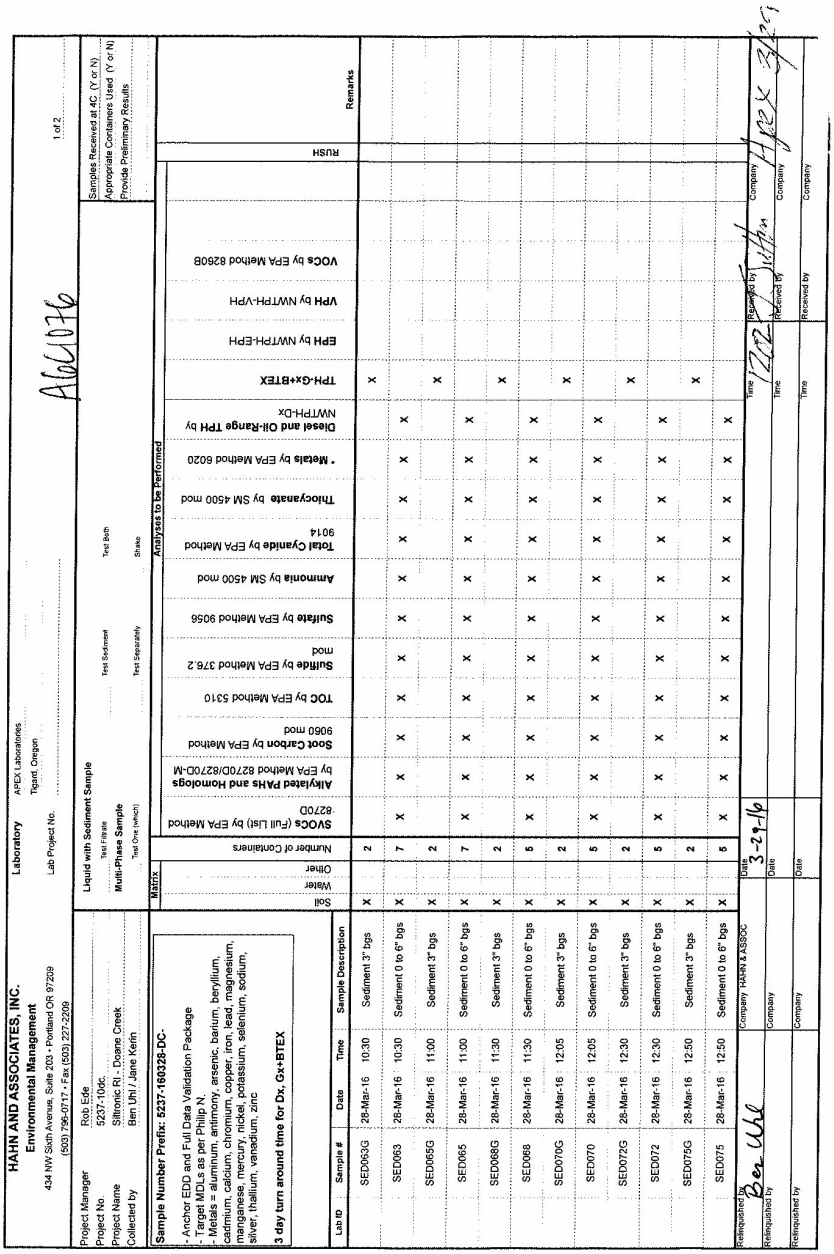
434 NW 6th Ave. Suite 203	Project Number: 5237-10dc	**Reported:**
Portland, OR 97209	Project Manager: Rob Ede	05/05/16 22:00



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.: A1601076
1 of 2

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

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

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

Sample Number Prefix: 5237-160328-DC-

- 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	Matrix: Soil	Water	Other	Number of Containers	SVOCs (Full List) by EPA Method 8270D	Alkylated 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
SED063G		28-Mar-16	10:30	Sediment 3" bgs	X			2																
SED063		28-Mar-16	10:30	Sediment 0 to 6" bgs	X			7	X	X	X	X	X	X	X	X	X	X	X	X				
SED065G		28-Mar-16	11:00	Sediment 3" bgs	X			2													X			
SED065		28-Mar-16	11:00	Sediment 0 to 6" bgs	X			7	X	X	X	X	X	X	X	X	X	X	X	X				
SED068G		28-Mar-16	11:30	Sediment 3" bgs	X			2													X			
SED068		28-Mar-16	11:30	Sediment 0 to 6" bgs	X			5	X	X	X	X	X	X	X	X	X	X	X	X				
SED070G		28-Mar-16	12:05	Sediment 3" bgs	X			2													X			
SED070		28-Mar-16	12:05	Sediment 0 to 6" bgs	X			5	X	X	X	X	X	X	X	X	X	X	X	X				
SED072G		28-Mar-16	12:30	Sediment 3" bgs	X			2													X			
SED072		28-Mar-16	12:30	Sediment 0 to 6" bgs	X			5	X	X	X	X	X	X	X	X	X	X	X	X				
SED075G		28-Mar-16	12:50	Sediment 3" bgs	X			2													X			
SED075		28-Mar-16	12:50	Sediment 0 to 6" bgs	X			5	X	X	X	X	X	X	X	X	X	X	X	X				

Relinquished by: Ben Uhl	Company: HAHN & ASSOC	Date: 3-29-16	Time: 1222	Received by:	Company:	RUSH
Relinquished by	Company	Date	Time	Received by	Company	
Relinquished by	Company	Date	Time	Received by	Company	

Apex Laboratories

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.

Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Labs

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

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 22:00

A6C1076

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.
2 of 2

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: 5237-160328-DC-

- 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

Analyses to be Performed

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
	SED077G	28-Mar-16	13:15	Sediment 3" bgs	X			2												X					
	SED077	28-Mar-16	13:15	Sediment 0 to 6" bgs	X			5	X	X	X	X	X	X	X	X	X	X	X						
	SED077GD	28-Mar-16	13:15	Sediment 3" bgs	X			2												X					
	SED077D	28-Mar-16	13:15	Sediment 0 to 6" bgs	X			5	X	X	X	X	X	X	X	X	X	X	X						
	SED082G	28-Mar-16	13:45	Sediment 3" bgs	X			2												X					
	SED082	28-Mar-16	13:45	Sediment 0 to 6" bgs	X			5	X	X	X	X	X	X	X	X	X	X	X						
	SED085G	28-Mar-16	14:15	Sediment 3" bgs	X			2												X					
	SED085	28-Mar-16	14:15	Sediment 0 to 6" bgs	X			5	X	X	X	X	X	X	X	X	X	X	X						
	SED087G	28-Mar-16	14:45	Sediment 3" bgs	X			2												X					
	SED087	28-Mar-16	14:45	Sediment 0 to 6" bgs	X			7	X	X	X	X	X	X	X	X	X	X	X						

Relinquished by	Company	Date	Time	Received by	Company
Ben Uhl	HAHN & ASSOC	3-24-16	1202	[illegible]	Apex 3/29