N90845.AR.001884
NWIRP BETHPAGE
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VALIDATED DATA PACKAGE, SI3513, NWIRP BETHPAGE NY
6/23/2015
KATAHDIN ANALYTICAL SERVICES

FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME Katahdin Analytical Services
CITY/STATE Scarborough, ME
CASE NO. WE15 SDG NO. SI3513 SDG NOS. TO FOLLOW

CONTRACT NO.
SOW NO.

All documents delivered in the Complete SDG File must be original documents where possible. (Reference - ILM05.4, Exhibit B Section 2.6)

	PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
1. Cover Page	0000003	0000004	✓	
2. SDG Narrative	0000005	0000006	✓	
3. Sample Log-In Sheet (DC-1)	—	—	✓	
4. Inventory Sheet (DC-2))	0000001	0000002	✓	
5. Traffic Report/Chain of Custody Record(s)	0000008	0000008	✓	
Inorganic Analysis				
6. Data Sheet (Form I-IN)	0000017	0000021	✓	
7. Initial & Continuing Calibration Verification (Form IIA-IN)	NA	NA	NA	
8. CRQL Standard(Form IIB-IN)	↓	↓	↓	
9. Blanks (Form III-IN) LAB 06-2315	0000011 ~~0000013~~	0000013	✓	
10. ICP-AES Interference Check Sample (Form IVA-IN)	NA	NA	NA	
11. ICP-MS Interference Check Sample(Form IVB-IN)	↓	↓	↓	
12. Matrix Spike Sample Recovery(Form VA-IN)	0000016	0000016	✓	
13. Post-Digestion Spike Sample Recovery(Form VB-IN)	NA	NA	NA	
14. Duplicates (Form VI-IN)	0000015	0000015	✓	
15. Laboratory Control Sample(Form VII-IN)	0000014	0000014	✓	
16. ICP-AES and ICP-MS Serial Dilutions (Form VIII-IN)	NA	NA	NA	
17. Method Detection Limits (Annually) (Form IX-IN)				
18. ICP-AES Interelement Correction Factors (Quarterly) (Form XA-IN)				
19. ICP-AES Interelement Correction Factors (Quarterly) (Form XB-IN)				
20. ICP-AES and ICP-MS Linear Ranges (Quarterly) (Form XI-IN)				
21. Preparation Log (Form XII-IN)				
22. Analysis Run Log (Form XIII-IN)				

FORM DC-2-2 M&E DAS

FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

	PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
23. ICP-MS Tune (Form XIV-IN)	NA	NA	NA	
24. ICP-MS Internal Standards Relative Intensity Summary (Form XV-IN)	↓	↓	↓	
25. ~~ICP-AES~~ Raw Data — Wet Chemistry	0000022	0000053	✓	
26. ICP-MS Raw Data	NA	NA	NA	
27. Mercury Raw Data				
28. Cyanide Raw Data				
29. Preparation Logs Raw Data (Wet Chemistry)				
30. Percent Solids Determination Log				
31. USEPA Shipping/Receiving Documents				
Airbill (No. of Shipments 1)				
Sample Tags				
Sample Log-In Sheet (Lab)				
32. Misc. Shipping/Receiving Records (list all individual records)				
Telephone Logs				
Sample Receipt Condition Report	0000007	0000007	✓	
	NA	NA	NA	
33. Internal Lab Sample Transfer Records & Tracking Sheets (describe or list)	↓	↓	↓	
Internal Chain of Custody	0000010	0000010	✓	
Login Chain of Custody Report	0000009	0000009	✓	
34. Internal Original Sample Prep & Analysis Records (describe or list)				
Prep Records	NA	NA	NA	
Analysis Records				
Description Duplicate Precision Form				
35. Other Records (describe or list)				
Telephone Communications Log				
DAS Specifications				
36. Comments				

Completed by:
(CLP Lab) Leslie Dimond (Signature) Leslie Dimond / QAO (Print Name & Title) 06.23.15 (Date)

Audited by:
(USEPA) _____ (Signature) _____ (Print Name & Title) _____ (Date)

FORM DC-2-2 M&E DAS

ENSAFE
NAVY CLEAN WE15-03-06
NWIRP BETHPAGE, NY
SI3513

KATAHDIN ANALYTICAL SERVICES, LLC.
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

SAMPLE DATA PACKAGE

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
ENSAFE
NAVY CLEAN WE15-03-06 NWIRP BETHPAGE, NY
SI3513

Sample Receipt

The following samples were received on May 27, 2015 and were logged in under Katahdin Analytical Services work order number SI3513 for a hardcopy due date of June 15, 2015.

KATAHDIN Sample No.	AECOM Sample Identification
SI3513-1	BPOW6-6-052115-773-775
SI3513-2	BPOW6-6-FD-052115
SI3513-3	BPOW6-6-052115-EB

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Jennifer Obrin.** This narrative is an integral part of the Report of Analysis.

Wet Chemistry Analysis

The samples of Work Order SI3513 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for total organic carbon in soil were performed according to "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA,III, IIIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

Analyses for total organic carbon in water and total solids were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of

Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOD", where "LOD" is the numerical value of the Limit of Detection.

All analyses were performed within analytical holding times. All quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Leslie Dimond
06.23.15

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc. **Sample Receipt Condition Report**

Client: AE com		KAS PM: Jo		Sampled By: Client	
Project:		KIMS Entry By: GN		Delivered By: FedEx	
KAS Work Order#: SI3512 / SI3513		KIMS Review By:		Received By: GN	
SDG #:	Cooler: 1 of 1			Date/Time Rec.: 5-27-15/09:00	

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 0.2
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?	✓				
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
Air: Refer to KAS COC for canister/flow controller requirements.	√ if air included				
7. Trip Blank present in cooler?	✓				
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

SI3513

RESOLUTION CONSULTANTS

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

COC No.: | Page 1 of 1

Project Name: NWIRP Bethpage | PO No.: | Project No. 60246526 Phase FI

Site Location: BPOW6-6

CTO No.: | RC Project Manager: Brian Caldwell

Sampler/Site Phone#: Steven Wright / 516-620-1201

Lab Name: Caldwell Analytical | Turnaround Time(specify):

Sample Analysis Requested (*Enter number of containers for each test*)

Lab ID	Sample ID (sys_samp_code)	Location ID (sys_loc_code)	Date (mm/dd/yy)	Time (Military) (hhmm)	Matrix Code (1)	Sample Type (2)	Field Filtered (Y/N)	Total No. of Containers (3)→	TPC									Extra Volume for MS/MSD	HOLD
	BPOW6-6-052115-773-775		5-21-15	1230	SO	N	N	1	X										
	BPOW6-6-FD-052115		5-21-15	—	SO	N	N	1	X										
	BPOW6-6-052115-EB		5-21-15	1230	EB	EB	N	3	X										

Field **Comments:**

Lab **Comments:**

Sample Shipment and Delivery Details

Number of coolers in shipment:

Samples Iced?(check) Yes_____ No_____

Method of Shipment:

Airbill No:

Date Shipped:

Relinquished by (signature)	Date	Time	Received by (signature)	Date	Time
1	5/26/15	1515	1	5/26/15	1515
2			2	5-27-15	0900
3			3		

(1) AA=Ambient air, **AQ**=Air quality control, **ASB**=Asbestos, **CK**=Caulk, **DS**=Storm drain sediment, **GS**=Soil gas, **IC**=IDW Concrete, **IDD**=IDW Solid, **IDS**=IDW soil, **IDW**=IDW Water, **LF**=Free Product, **MA**=Mastic, **PC**=Paint Chips, **SC**=Cement/Concrete, **SE**=Sediment, **SL**=Sludge, **SO**=Soil, **SQ**=Soil/Solid quality control, **SSD**=Subsurface sediment, **SU**=Surface soil (<6 in), **SW**=Swab or wipe, **TA**=Animal tissue, **TP**=Plant tissue, **TQ**=Tissue quality control, **WG**=Ground water, **WL**=Leachate, **WO**=Ocean water, **WP**=Drinking water, **WQ**=Water quality control, **WR**=Ground water effluent, **WS**=Surface water, **WU**=Storm water, **WW**=Waste water

(2) Sample Type: AB=Ambient Blk, **EB**=Equipment Blk, **FB**=Field Blk, **FD**=Field Duplicate Sample, **IDW**=Investigative-Derived Waste, **MIS**=Incremental Sampling Methodology, **N**=Normal Environmental Sample, **TB**=Trip Blk

(3) Preservative added: HA=Hydrochloric Acid, **NI**=Nitric Acid, **SH**=Sodium Hydroxide, **SA**=Sulfuric Acid, **ME**=Methanol, **SB**=sodium bisulfate, **ST**=Sodium Thiosulfate, If **NO preservative** added leave blank

Rev 5/12

000008

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

May. 28, 2015
11:04 AM

Login Number: SI3513

Account: ENSAFE001 Web
ENSAFE

Project: AECOM-BETHPAGE
NWIRP Bethpage, NY

Primary Report Address:
Dana Miller
EnSafe
5724 Summer Trees Drive

Memphis,TN 38134
dmiller@Ensafe.com

Primary Invoice Address:
Accounts Payable
EnSafe
5724 Summer Trees Drive

Memphis,TN 38134

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: AECOM-BETHPAGE

Login Information:

ANALYSIS INSTRUCTIONS	:	Follow DoD QSM Version 4.2 using DoD limits. "U" LOD. "J" flag between DL and LOQ. Must use soxhlet for PCB extraction.
CHECK NO.	:	
CLIENT PO#	:	16518
CLIENT PROJECT MANAGE	:	Brian Caldwell
CONTRACT	:	
COOLER TEMPERATURE	:	0.2
DELIVERY SERVICES	:	FedEx
EDD FORMAT	:	KAS135QC-CSV
LOGIN INITIALS	:	AP
PM	:	JO
PROJECT NAME	:	Navy Clean WE15-03-06 NWIRP Bethpage, NY
QC LEVEL	:	IV
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Send Hardcopy and CD to Dana. Upload PDF and EDD to SDS folder. Email level 2 report to Dana. Email invoice to purchasing@ensafe.com.
SDG ID	:	
SDG STATUS	:	

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SI3513-1	W6-6-052115-773-775	21-MAY-15 12:30	27-MAY-15			15-JUN-15	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW9060M-TOC	18-JUN-15			BPOW6-6-052115-773-775
Solid	S	TS	20-JUN-15			

SI3513-2	BPOW6-6-FD-052115	21-MAY-15 00:00	27-MAY-15			15-JUN-15

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW9060M-TOC	18-JUN-15			
Solid	S	TS	20-JUN-15			

SI3513-3	BPOW6-6-052115-EB	21-MAY-15 12:30	27-MAY-15			15-JUN-15

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM5310B-TOC	18-JUN-15	40 mL Vial+H2SO4		

Total Samples: ***3*** ***Total Analyses:*** ***5***

05.28.15

0000009

Katahdin Analytical Services, Inc.

Container Transfer History for SI3513

Samplenum SI3513-1

Container Id SI3513-1A **Containertype** **40 mL Vial+H2SO4** **Matrix SL**

Product *SW9060M-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
27-MAY-15 15:14	LOGIN	WALK-IN	APIMENTEL	N	
28-MAY-15 08:59	WALK-IN	WET CHEMISTRY	JSTEWART	N	
02-JUN-15 12:18	WALK-IN	WET CHEMISTRY	CBAGLEY	Y	This container has not been properly returned to CUSTODY! It was last assigned to JSTEWART for department WET CHEMISTRY on 05/28/15 08:59 .
02-JUN-15 14:53	WET CHEMISTRY	WALK-IN	DWRIGHT	N	

Samplenum SI3513-2

Container Id SI3513-2A **Containertype** **40 mL Vial+H2SO4** **Matrix SL**

Product *SW9060M-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
27-MAY-15 15:14	LOGIN	WALK-IN	APIMENTEL	N	
28-MAY-15 08:59	WALK-IN	WET CHEMISTRY	JSTEWART	N	
02-JUN-15 12:18	WALK-IN	WET CHEMISTRY	CBAGLEY	Y	This container has not been properly returned to CUSTODY! It was last assigned to JSTEWART for department WET CHEMISTRY on 05/28/15 08:59 .
02-JUN-15 14:53	WET CHEMISTRY	WALK-IN	DWRIGHT	N	

Samplenum SI3513-3

Container Id SI3513-3A **Containertype** **40 mL Vial+H2SO4** **Matrix AQ**

Product *SM5310B-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
27-MAY-15 15:14	LOGIN	WALK-IN	APIMENTEL	N	

Container Id SI3513-3B **Containertype** **40 mL Vial+H2SO4** **Matrix AQ**

Product *SM5310B-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
27-MAY-15 15:14	LOGIN	WALK-IN	APIMENTEL	N	

Container Id SI3513-3C **Containertype** **40 mL Vial+H2SO4** **Matrix AQ**

Product *SM5310B-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
27-MAY-15 15:14	LOGIN	WALK-IN	APIMENTEL	N	

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Quality Control Report

Blank Sample Summary Report

TOC in Soil

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG163710	SW846 9060A Mod.	28-MAY-15	N/A	U 300 ug/gdrywt	400 ug/gdrywt	300

Total Organic Carbon

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG163975	SM5310B	05-JUN-15	N/A	U 0.50 mg/L	1.0 mg/L	0.50

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG163967	SM2540	03-JUN-15	02-JUN-15	U 1 %	1 %	N/A

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Laboratory Control Sample Summary Report

TOC In Soil

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG163710-2	LCS	WG163710	28-MAY-15	N/A	ug/gdrywt	400000.000	440000	110	80-120	

Total Organic Carbon

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG163975-2	LCS	WG163975	05-JUN-15	N/A	mg/L	50	51.	103	80-120	

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG163967-2	LCS	WG163967	03-JUN-15	02-JUN-15	%	90	91.	102	90-110	

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Cert No E87604

Quality Control Report

Duplicate Sample Summary Report

TOC In Soil

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG163710-4	SI3513-1	WG163710	28-MAY-15	ug/gdrywt	J 260	U 420	NC	30

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG163967-3	SI3513-2	WG163967	03-JUN-15	%	93.	93.	0	20

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

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Cert No E87604

Quality Control Report

Matrix Spike Sample Summary Report

TOC In Soil

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG163710-3	MS	SI3513-1	WG163710	28-MAY-15	ug/gdrywt	8319.17	J 260	9000	104	75 - 125

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P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfide H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Dana Miller
EnSafe
5724 Summer Trees Drive
Memphis,TN 38134

Lab Sample ID: SI3513-1
Report Date: 23-JUN-15
Client PO: 16518
Project: Navy Clean WE15-03-0
SDG: SI3513

Sample Description	Matrix	Date Sampled	Date Received
W6-6-052115-773-775	SL	21-MAY-15 12:30:00	27-MAY-15

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
TOC In Soil	J260 ug/gdrywt	410	87.	N/A	SW846 9060A Mod.	WG163710	28-MAY-15 15:32:58	N/A	N/A	
Total Solids	94. %	1		N/A	SM2540G	WG163967	03-JUN-15 11:34:58	SM2540G	02-JUN-15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client: Dana Miller
EnSafe
5724 Summer Trees Drive
Memphis,TN 38134

Lab Sample ID: SI3513-2
Report Date: 23-JUN-15
Client PO: 16518
Project: Navy Clean WE15-03-0
SDG: SI3513

Sample Description	Matrix	Date Sampled	Date Received
BPOW6-6-FD-052115	SL	21-MAY-15 00:00:00	27-MAY-15

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
TOC In Soil	J250 ug/gdrywt	420	90.	N/A	SW846 9060A Mod.	WG163710	28-MAY-15 16:09:48	N/A	N/A	
Total Solids	93. %	1		N/A	SM2540G	WG163967	03-JUN-15 11:35:08	SM2540G	02-JUN-15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Dana Miller
EnSafe
5724 Summer Trees Drive
Memphis,TN 38134

Lab Sample ID: SI3513-3
Report Date: 23-JUN-15
Client PO: 16518
Project: Navy Clean WE15-03-0
SDG: SI3513

Sample Description	Matrix	Date Sampled	Date Received
BPOW6-6-052115-EB	AQ	21-MAY-15 12:30:00	27-MAY-15

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Organic Carbon	J0.36 mg/L	1.0	0.10	.5	SM5310B	WG163975	05-JUN-15 11:05:01	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
http://www.katahdinlab.com

Raw Data Section

WET CHEMISTRY BATCH REPORT
Jun 12 2015, 04:47 pm
Batch: WG163710

Parameter: TOC In Soil

Date Analyzed: 28-MAY-15

Analyst Initials: JS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SI3513-1	SAMP	SW846 9060A	517.6mg	200.00ug	1	261.48392	J260 ug/gdrywt	94.	400	87.	410		
SI3513-2	SAMP	SW846 9060A	506.3mg	200.00ug	1	250.8741	J250 ug/gdrywt	93.	400	90.	420		
WG163710-1	MBLANK	SW846 9060A	500mg	200.00ug	1	0	U300 ug/gdrywt	NA	400	85.	400		
WG163710-2	LCS	SW846 9060A	40mg	200.00ug	1	442275	440000 ug/gdrywt	NA	400	85.	400		110
WG163710-3	MS	SW846 9060A	509.2mg	200.00ug	1	8957.66639	9000 ug/gdrywt	NA	400	90.	420		104
WG163710-4	DUP	SW846 9060A	502.6mg	200.00ug	1	359.89332	U420 ug/gdrywt	NA	400	90.	420	NC	

Comments:

SI3513-1	BPOW6-6-052115-773-775
WG163710-1	SI3513-1
WG163710-2	SI3513-1
WG163710-3	SI3513-1
WG163710-4	SI3513-1

Entered by: JS Date: 6.12.15 Accepted by: KO Date: 6/15/15

	Sample Name	Dilution	Result	Comment	Date / Time
1	CCV	1.000	SSM-TC:14167 ug	88.5%	5/28/2015 11:41:16 AM
2	CCB	1.000	SSM-TC:0.000 ug		5/28/2015 11:53:25 AM
3	LCS	1.000	SSM-TC:17691 ug		5/28/2015 12:28:55 PM
4	LCSD	☆ 1.000	SSM-TC:16777 ug		5/28/2015 12:38:36 PM
5	NUTRIENTS	1.000	SSM-TC:1434 ug		5/28/2015 12:47:51 PM
6	NUTRIENTS	1.000	SSM-TC:1610 ug		5/28/2015 12:56:22 PM
7	SI3202-2	1.000	SSM-TC:18936 ug		5/28/2015 1:07:56 PM
8	SI3202-2	1.000	SSM-TC:18836 ug		5/28/2015 1:19:09 PM
9	SI3202-2 MS	1.000	SSM-TC:23424 ug		5/28/2015 2:15:23 PM
10	SI3202-2 MSD	1.000	SSM-TC:24047 ug		5/28/2015 2:38:13 PM
11	FILTER BLANK	1.000	SSM-TC:574.2 ug		5/28/2015 2:46:49 PM
12	FILTER BLANK	1.000	SSM-TC:249.2 ug		5/28/2015 2:57:56 PM
13	CCV	1.000	SSM-TC:16978 ug	106.1%	5/28/2015 3:07:45 PM
14	CCB	1.000	SSM-TC:0.000 ug		5/28/2015 3:14:16 PM
15	SI3513-1	1.000	SSM-TC:127.8 ug		5/28/2015 3:32:58 PM
16	SI3513-1 MS	1.000	SSM-TC:4307 ug		5/28/2015 3:51:17 PM
17	SI3513-1 D	1.000	SSM-TC:170.8 ug		5/28/2015 4:01:13 PM
18	SI3513-2	1.000	SSM-TC:118.2 ug	+	5/28/2015 4:09:48 PM JS 6·12·15
19	CCV	1.000	SSM-TC:16366 ug	102.3%	5/28/2015 4:18:16 PM
20	CCB	1.000	SSM-TC:0.000 ug		5/28/2015 4:25:54 PM
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

☆ Not reported with this batch

Katahdin Analytical Services, Inc.

Carbon Analysis of Solid Samples - Shimadzu TOC-V_{CPH} / SSM-5000A

Analysis Type and Method (Check One)

____Total Carbon (SW846 9060M)

____Total Inorganic Carbon (SW846 9060M)

✓ Total Organic Carbon (SW846 9060)

✓ Other (Specify): POC WG163404

____Total Organic Carbon (Lloyd Kahn) WG163710 R319202

Spiking Information		
LCS Spike Source ID / Compound:	W12843	TV:16000
CCV Spike Source ID / Compound:	W12842	⊥
MS Spike Source ID / Compound:	⊥	TV:4000

Calibration Information	
Calibration Date:	5·13·15
Calibration Analyst:	JS

KATAHDIN Sample Number	Sample Wt. (mg)	Sample Type * (Circle One)	% Recovery ~~Spike Added (mg)~~
CCV		Wet Dry	88.5%
CCB		Wet Dry	
LCS		Wet Dry	110.5%
LCSD		Wet Dry	104.8%
Nutrients	205.7	Wet Dry	
⊥	209.8	Wet Dry	
SI3202 -2	240.4	Wet Dry	
-2	240.0	Wet Dry	
-2 MS	236.2	Wet Dry	
-2 MSD	240.8	Wet Dry	
Filter Blank	325.1	Wet Dry	
⊥	324.7	Wet Dry	
CCV		Wet Dry	106.1%
CCB		Wet Dry	
SI3513 - 1	JS 5/28/15 ~~503.5~~ 517.6	Wet Dry	
- 1 MS	509.2	Wet Dry	
- 1 D	502.6	Wet Dry	
- 2	506.3	Wet Dry	
CCV		Wet Dry	102.3%
CCB		Wet Dry	
		Wet Dry	
		Wet Dry	

* "Wet" = field-moist sample (as received). "Dry" = oven-dried sample.

Analyst: JS	Analysis Date: 5.28.15
Reviewer: PW	Review Date: 6/15/15

Instr.Information

System	SSM-5000A
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	short

Sample

Sample Name:	CCV
Sample ID:	<Untitled>
Origin:	tc method SOILS.met
Chk. Result	

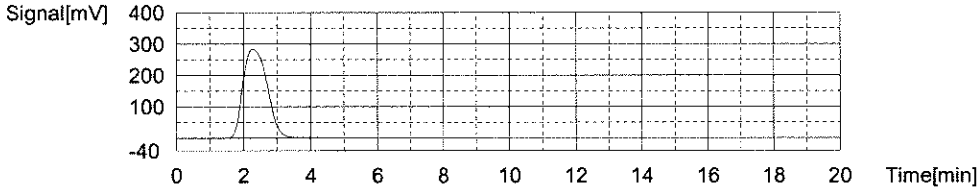
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:14167 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1411	1411	14167ug	14167ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 11:41:16 AM

Mean Area	1411
Mean CNV	1411
Mean Conc.	14167ug



Sample

Sample Name:	CCB
Sample ID:	<Untitled>
Origin:	tc method SOILS.met
Chk. Result	

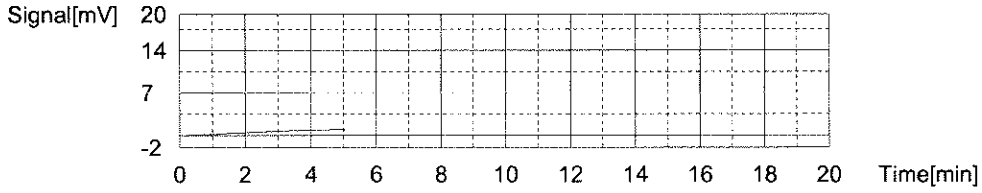
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:0.000 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	0.000ug	0.000ug	500.0mg	500uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 11:53:25 AM

Mean Area	0.000
Mean CNV	0.000
Mean Conc.	0.000ug



Sample

Sample Name: LCS
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

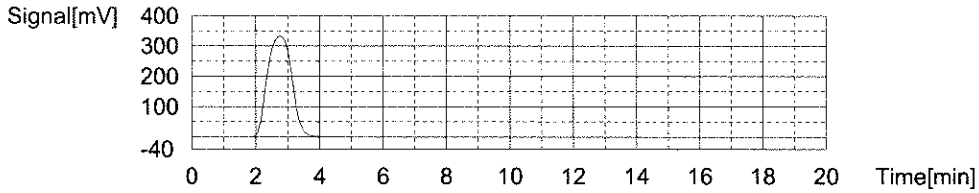
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:17691 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1762	1762	17691ug	17691ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 12:28:55 PM

Mean Area 1762
Mean CNV 1762
Mean Conc. 17691ug



Sample

Sample Name: LCSD
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

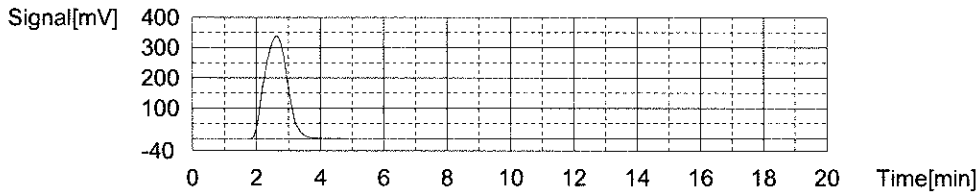
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:16777 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1671	1671	16777ug	16777ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 12:38:36 PM

Mean Area 1671
Mean CNV 1671
Mean Conc. 16777ug



Sample

Sample Name: NUTRIENTS
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

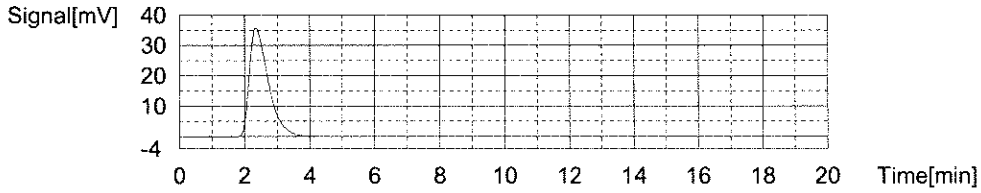
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1434 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	142.8	142.8	1434ug	1434ug	205.7mg	205uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 12:47:51 PM

Mean Area 142.8
Mean CNV 142.8
Mean Conc. 1434ug



Sample

Sample Name: NUTRIENTS
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

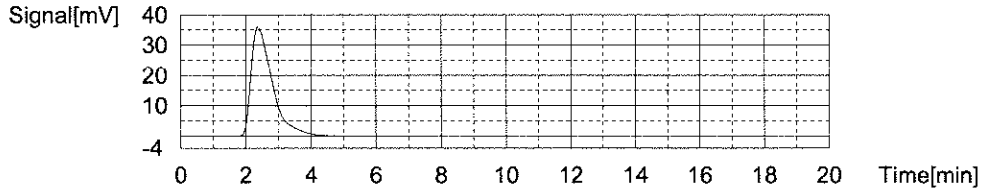
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1610 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	160.4	160.4	1610ug	1610ug	209.8mg	209uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 12:56:22 PM

Mean Area 160.4
Mean CNV 160.4
Mean Conc. 1610ug



Sample

Sample Name: SI3202-2
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

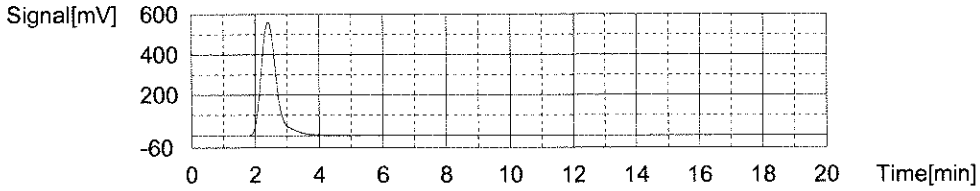
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:18936 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1886	1886	18936ug	18936ug	240.4mg	240uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 1:07:56 PM

Mean Area 1886
Mean CNV 1886
Mean Conc. 18936ug



Sample

Sample Name: SI3202-2
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

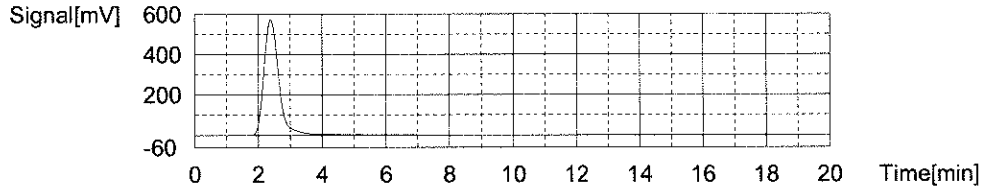
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:18836 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1876	1876	18836ug	18836ug	240.0mg	240uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 1:19:09 PM

Mean Area 1876
Mean CNV 1876
Mean Conc. 18836ug



Sample

Sample Name: SI3202-2 MS
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

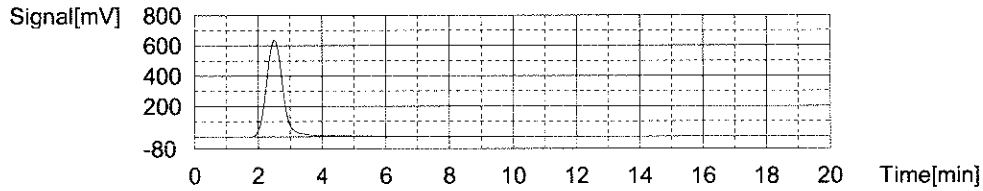
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:23424 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2333	2333	23424ug	23424ug	236.2mg	236uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 2:15:23 PM

Mean Area 2333
Mean CNV 2333
Mean Conc. 23424ug



Sample

Sample Name: SI3202-2 MSD
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

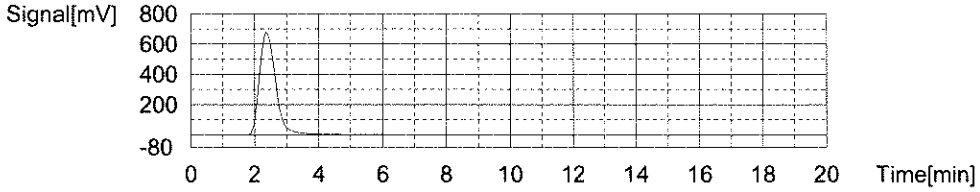
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:24047 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2395	2395	24047ug	24047ug	240.8mg	240uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 2:38:13 PM

Mean Area 2395
Mean CNV 2395
Mean Conc. 24047ug



Sample

Sample Name: FILTER BLANK
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

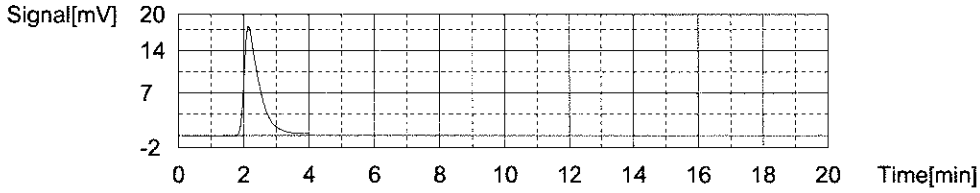
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:574.2 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	57.19	57.19	574.2ug	574.2ug	325.1mg	325uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 2:46:49 PM

Mean Area 57.19
Mean CNV 57.19
Mean Conc. 574.2ug



Sample

Sample Name: FILTER BLANK
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

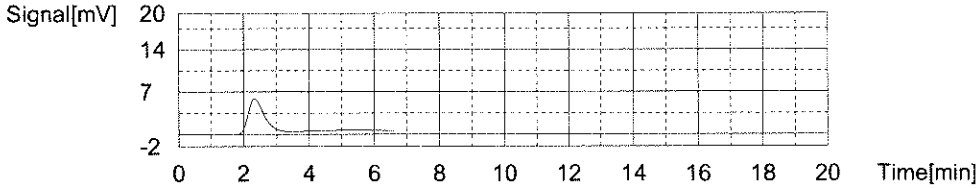
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:249.2 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	24.82	24.82	249.2ug	249.2ug	324.7mg	324uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 2:57:56 PM

Mean Area 24.82
Mean CNV 24.82
Mean Conc. 249.2ug



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

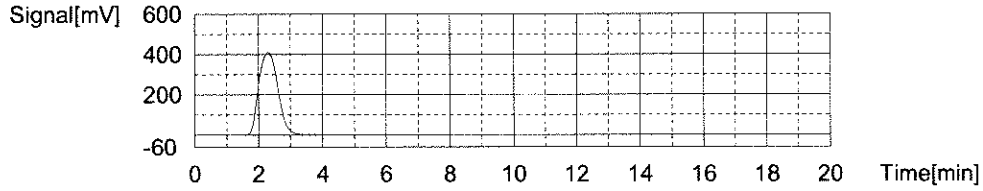
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:16978 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1691	1691	16978ug	16978ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 3:07:45 PM

Mean Area 1691
Mean CNV 1691
Mean Conc. 16978ug



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

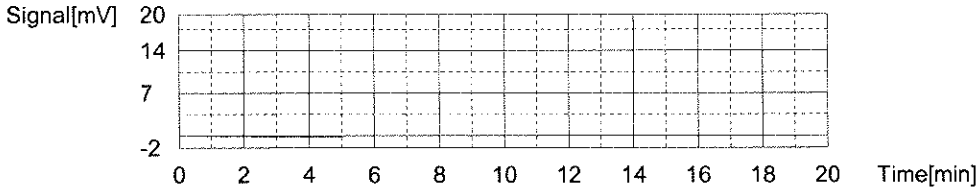
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:0.000 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	0.000ug	0.000ug	500.0mg	500uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 3:14:16 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. 0.000ug



Sample

Sample Name: SI3513-1
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

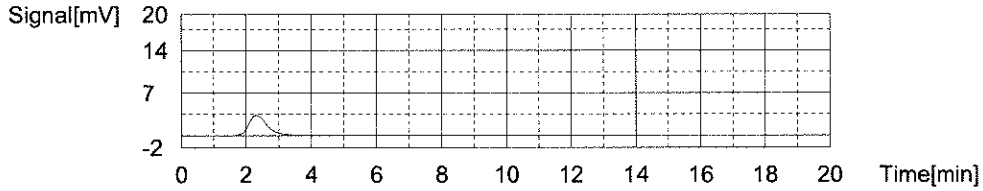
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:127.8 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	12.73	12.73	127.8ug	127.8ug	517.6mg	517uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 3:32:58 PM

Mean Area 12.73
Mean CNV 12.73
Mean Conc. 127.8ug



Sample

Sample Name: SI3513-1 MS
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

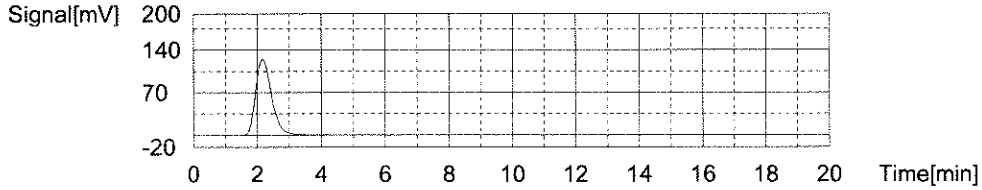
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:4307 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	429.0	429.0	4307ug	4307ug	509.2mg	509uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 3:51:17 PM

Mean Area 429.0
Mean CNV 429.0
Mean Conc. 4307ug



Sample

Sample Name: SI3513-1 D
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

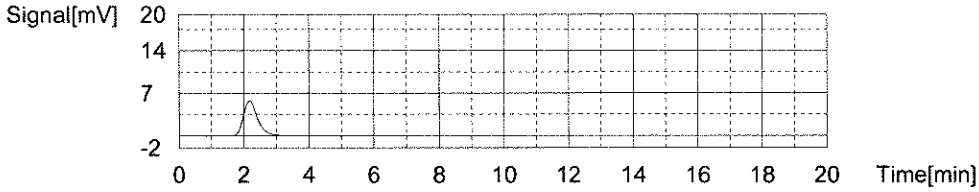
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:170.8 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	17.01	17.01	170.8ug	170.8ug	502.6mg	502uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 4:01:13 PM

Mean Area 17.01
Mean CNV 17.01
Mean Conc. 170.8ug



Sample

Sample Name: SI3513-2
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

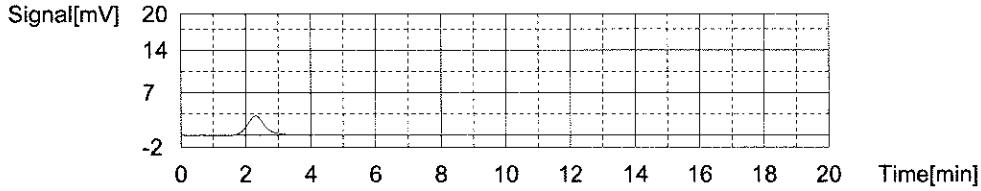
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:118.2 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	11.77	11.77	118.2ug	118.2ug	506.3mg	506uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 4:09:48 PM

Mean Area 11.77
Mean CNV 11.77
Mean Conc. 118.2ug



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

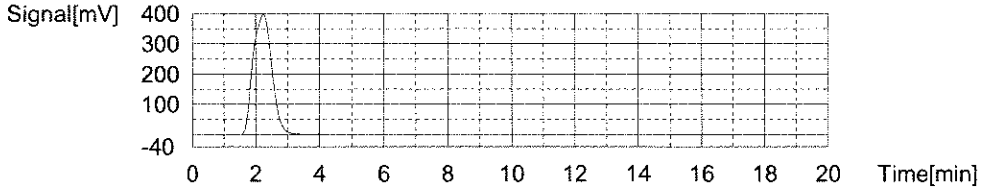
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:16366 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1630	1630	16366ug	16366ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 4:18:16 PM

Mean Area 1630
Mean CNV 1630
Mean Conc. 16366ug



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

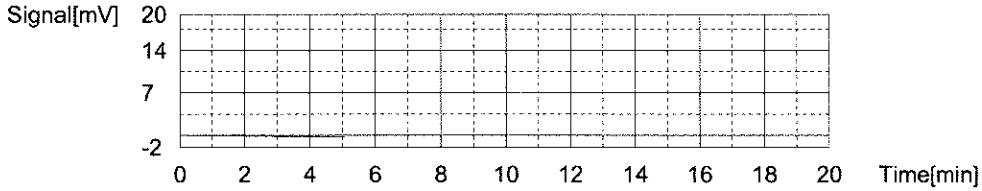
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:0.000 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	0.000ug	0.000ug	500.0mg	500uL		toc sl cal 051315.2015_05_13_09_28_03.cal	5/28/2015 4:25:54 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. 0.000ug



Instr.Information

System	SSM-5000A
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	short

Cal. Curve

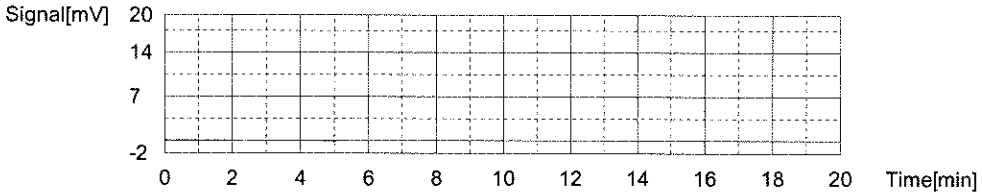
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	toc sl cal 051315.2015_05_13_09_28_03.cal

Type	Anal.	Density
Standard	SSM-TC	

AbsC: 0.000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	0.000	0.000	0.000ug	0.000mg	*******		5/13/2015 9:39:28 AM

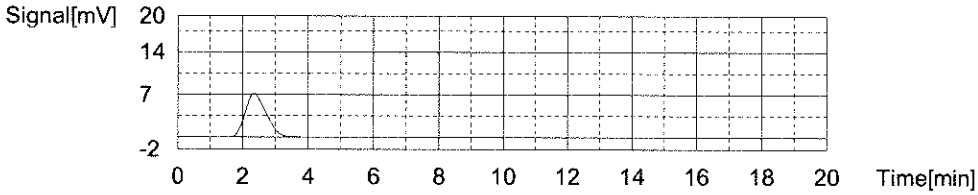
Mean Area 0.000
Mean CNV 0.000



AbsC: 200.0ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	31.54	31.54	200.0ug	0.5000mg	*******		5/13/2015 9:47:26 AM

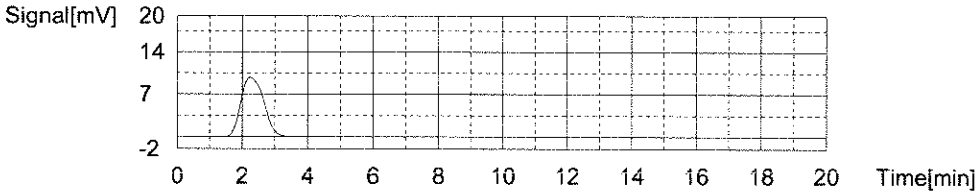
Mean Area 31.54
Mean CNV 31.54



AbsC: 400.0ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	47.46	47.46	400.0ug	1.000mg	*******		5/13/2015 9:55:11 AM

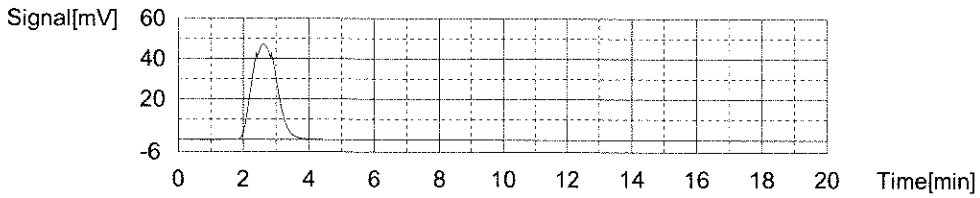
Mean Area 47.46
Mean CNV 47.46



AbsC: 2000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	250.5	250.5	2000ug	5.000mg	*******		5/13/2015 10:05:02 AM

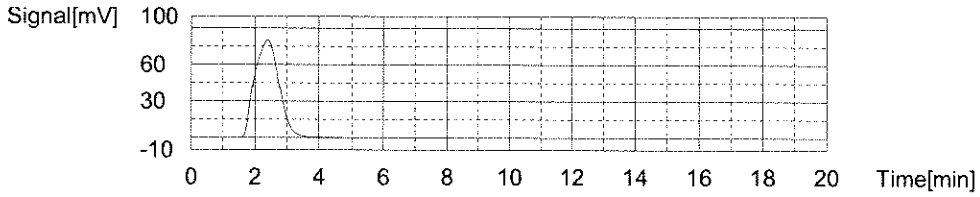
Mean Area 250.5
Mean CNV 250.5



AbsC: 4000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	426.7	426.7	4000ug	10.00mg	*******		5/13/2015 10:14:22 AM

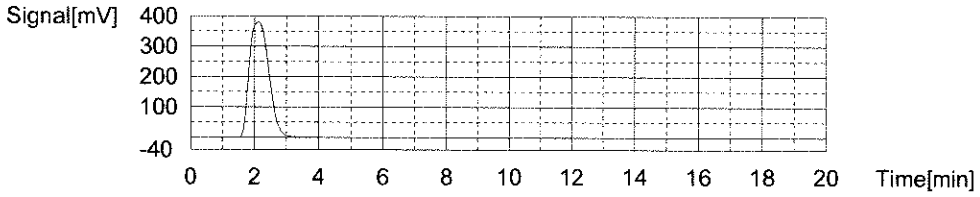
Mean Area 426.7
Mean CNV 426.7



AbsC: 16000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	1602	1602	16000ug	40.00mg	*******		5/13/2015 10:23:53 AM

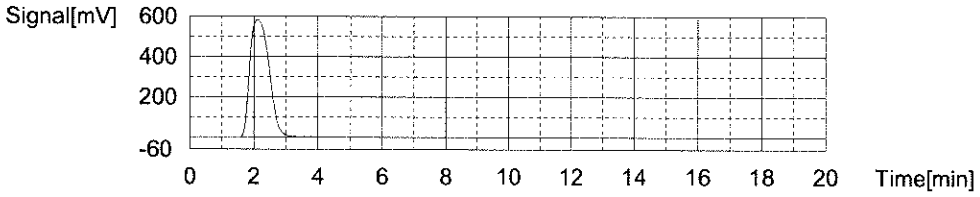
Mean Area 1602
Mean CNV 1602



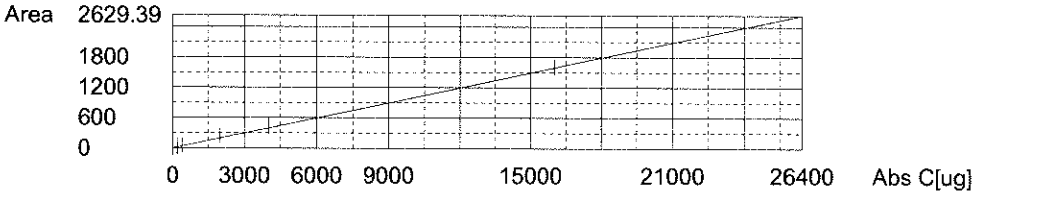
AbsC: 24000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	2411	2411	24000ug	60.00mg	*******		5/13/2015 10:34:10 AM

Mean Area 2411
Mean CNV 2411



Slope: 0.09960
Intercept 0.000
r^2 0.999668



TOTAL SOLIDS BATCH REPORT
Jun 03 2015, 02:48 pm
Batch: WG163967

Sample	Matrix	Type	Prep Date	Tare	Initial	Final1	Final	by	Date	Raw TS	Rep TS	Recovery	RPD
SI3225-2	SL	SAMP	02-JUN-15	1.3095 g	26.1558 g	20.1181 g	20.1181 g	AZ	03-JUN-15	75.7000	76. %		
SI3504-1	SL	SAMP	02-JUN-15	1.3104 g	17.1168 g	16.5274 g	16.5274 g	AZ	03-JUN-15	96.2710	96. %		
SI3513-1	SL	SAMP	02-JUN-15	1.3234 g	30.8545 g	29.2084 g	29.2084 g	AZ	03-JUN-15	94.4260	94. %		
SI3513-2	SL	SAMP	02-JUN-15	1.3246 g	29.3561 g	27.4102 g	27.4102 g	AZ	03-JUN-15	93.0580	93. %		
SI3691-1	SL	SAMP	02-JUN-15	1.3279 g	8.355 g	6.1233 g	6.1233 g	AZ	03-JUN-15	68.2420	68. %		
WG163967-1	SL	MBLANK	02-JUN-15	1.3233 g	1.8098 g	1.3223 g	1.3223 g	AZ	03-JUN-15	-0.2060	1 %		
WG163967-2	SL	LCS	02-JUN-15	1.3248 g	6.8194 g	6.3507 g	6.3507 g	AZ	03-JUN-15	91.4700	91. %	102	
WG163967-3	SL	DUP	02-JUN-15	1.3058 g	31.3734 g	29.1573 g	29.1573 g	AZ	03-JUN-15	92.6300	93. %		0

Comments:

SI3513-1	BPOW6-6-052115-773-775
WG163967-1	SI3513-2
WG163967-2	SI3513-2
WG163967-3	SI3513-2

Entered by: _____ Date: 6-3-15 Accepted by: _____ Date: 06/03/15

W6163966 R319744

KATAHDIN ANALYTICAL SERVICES

R 319746
W6163967

Total Solids: SM2540 G / ASTM D2216			PQL: 0.10%	Total Volatile Solids: SM2540 G / E160.4			PQL: 0.10%	Balance Calibrated?
TS/TVS	In 1	In 2	TS Only	Out 1	Out 2	TVS Only		Y / N
ANALYST IN:	CLB	[illegible]	ANALYST OUT:	CLB	[illegible]	ANALYST OUT:		In: Y
DATE IN:	6-2-15	6-3-15	DATE OUT:	6-3-15	6-3-15	DATE OUT:		Out (TS): Y
TIME IN:	14:00	11:27	TIME OUT:	9:14	13:40	TIME OUT:		Out (TVS):
TEMP IN:	115°	105°C	TEMP OUT:	115°	103°C	TEMP OUT:		Balance ID:
Oven ID:			Muffle Oven ID: 030807 (assigned)					S/N 112401631

	SAMPLE ID	DISH ID	DISH WT (g)	DISH WET WT (g)	1st DISH DRY WT (g)	2nd DISH DRY WT (g)	DISH/ASH WT (g)	TIME
1	S13334-3	1			1.3223			
2	-4	2			6.3507			
3	S13261-18	3						
4	19	4						
5	23	5						
6	28	6						
7	32	7						
8	36	8						
9	S13265-1	9						
10	-3	10						
11	-5	11						
12	S13558-5	12						
13	-5D	13						
14	S13504-1)	14						
15	S13225-2	15						
16	S13513-1	16						
17	-2	17						
18	-2Dup	18						
19	Blank	19						
20	LCS	20						
21	S13691-1	21	1.3279	8.3550	6.1233			
22								
23								
24								

WL-009 – Revision 4 – 05/20/2015

Reviewed By: [illegible]
QAWL772

Reviewed Date: 06/03/15

Katahdin Analytical Services 0000038

WET CHEMISTRY BATCH REPORT
Jun 05 2015, 02:58 pm
Batch: WG163973

Parameter: Dissolved Organic Carbon

Date Analyzed: 05-JUN-15

Analyst Initials: JS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SI3478-1	SAMP	SM5310B	20.000mL	20.000mL	1	2.48	2.5 mg/L	NA	1	.1023	1.0		
SI3478-2	SAMP	SM5310B	20.000mL	20.000mL	1	.8684	U1.0 mg/L	NA	1	.1023	1.0		
WG163973-1	MBLANK	SM5310B	20.000mL	20.000mL	1	0	U0.50 mg/L	NA	1	0.10	1.0		
WG163973-2	LCS	SM5310B	20.000mL	20.000mL	1	51.45	51. mg/L	NA	1	0.10	1.0		103
WG163973-3	DUP	SM5310B	20.000mL	20.000mL	1	2.421	2.4 mg/L	NA	1	.1023	1.0	2	
WG163973-4	MS	SM5310B	20.000mL	20.000mL	1	92.27	92. mg/L	NA	1	.1023	1.0		91

Comments:

WG163973-1	SI3478-1
WG163973-2	SI3478-1
WG163973-3	SI3478-1
WG163973-4	SI3478-2

Entered by: JS Date: 6.5.15 Accepted by: RO Date: 6/5/15

WET CHEMISTRY BATCH REPORT
Jun 05 2015, 02:59 pm
Batch: WG163975

Parameter: Total Organic Carbon

Date Analyzed: 05-JUN-15

Analyst Initials: JS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SI3513-3	SAMP	SM5310B	20.000mL	20.000mL	1	.3631	J0.36 mg/L	NA	1	0.10	1.0		
SI3559-1	SAMP	SM5310B	20.000mL	20.000mL	1	.869	U1.0 mg/L	NA	1	.1023	1.0		
SI3565-1	SAMP	SM5310B	20.000mL	20.000mL	1	.3826	U1.0 mg/L	NA	1	.1023	1.0		
SI3565-2	SAMP	SM5310B	20.000mL	20.000mL	1	1.005	1.0 mg/L	NA	1	.1023	1.0		
SI3565-3	SAMP	SM5310B	20.000mL	20.000mL	1	.696	U1.0 mg/L	NA	1	.1023	1.0		
SI3565-4	SAMP	SM5310B	20.000mL	20.000mL	1	.7249	U1.0 mg/L	NA	1	.1023	1.0		
SI3605-3	SAMP	SM5310B	20.000mL	20.000mL	1	.1872	J0.19 mg/L	NA	1	0.10	1.0		
SI3605-4	SAMP	SM5310B	20.000mL	20.000mL	1	.2206	J0.22 mg/L	NA	1	0.10	1.0		
WG163975-1	MBLANK	SM5310B	20.000mL	20.000mL	1	0	U0.50 mg/L	NA	1	0.10	1.0		
WG163975-2	LCS	SM5310B	20.000mL	20.000mL	1	51.45	51. mg/L	NA	1	0.10	1.0		103

Comments:

WG163975-1 SI3513-3
WG163975-2 SI3513-3

Entered by: JS Date: 6-5-15 Accepted by: PO Date: 6/5/15

KATAHDIN ANALYTICAL SERVICES, INC.
CARBON ANALYSIS RUN INFORMATION SHEET

INSTR. ID: WC2 (Shimadzu TOC-V_{CPH}) **ANALYST:** JS **DATE:** 6·5·15

FILE NAME: TOC AQ 060115 RERUN **METHOD(S):**

TOC	DOC	TIC
☐ EPA 415.1	☐ EPA 415.1	☐ EPA 415.1
☑ SM5310B	☑ SM5310B	☐ SM5310B
☐ _____	☐ _____	☐ _____

CALIBRATION DATE: 05-14-15 **CALIBRATION ANALYST:** JS

Calibration standards were prepared by performing dilutions of the following standard on the day of calibration:

Calibration Source Standard ID	Prep Date	Expiration Date	Standard Conc. (mg/L)
W12929	4·10·15	7·10·15	2000

Note: Calibration must be performed quarterly or whenever a change in analysis conditions warrant. A copy of the associated calibration data is attached to this run.

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
CCV	W12930	4·10·15	7·10·15	100 mg C/L
LCS	W12955	4·21·15	7·21·15	50 mg C/L
MS Stock Std. *	W12929	4·10·15	7·10·15	2000 mg C/L
Alkalinity Check	W12995	5·8·15	11·8·15	15 mg/L (Inorg. C)

* Matrix spikes are prepared by adding 2.0 mL of MS Stock Std. to 38 mL of sample.

Additional Comments and Notes:

SM5310B - DOC - WG163973 R319749
1 - TOC - WG163975 R319750

	Sample Name	Dilution	Result	Comment	Date / Time	Vial
1	ALK CHECK	1.000	NPOC:0.01427 mg/L		6/5/2015 9:18:08 AM	1
2	CCV	1.000	NPOC:98.62 mg/L	98.62%	6/5/2015 9:34:06 AM	2
3	BLANK	1.000	NPOC:0.000 mg/L		6/5/2015 9:45:58 AM	3
4	LCS	1.000	NPOC:51.45 mg/L		6/5/2015 10:01:26 AM	4
5	SI3478-1	1.000	NPOC:2.480 mg/L		6/5/2015 10:14:58 AM	6
6	SI3478-1 D	1.000	NPOC:2.421 mg/L		6/5/2015 10:26:14 AM	6
7	SI3478-2	1.000	NPOC:0.8684 mg/L		6/5/2015 10:39:19 AM	7
8	SI3478-2 MS	1.000	NPOC:92.27 mg/L		6/5/2015 10:54:56 AM	8
9	SI3513-3	1.000	NPOC:0.3631 mg/L		6/5/2015 11:07:51 AM	9
10	SI3559-1	1.000	NPOC:0.8690 mg/L		6/5/2015 11:21:03 AM	10
11	SI3565-1	1.000	NPOC:0.3826 mg/L		6/5/2015 11:33:52 AM	11
12	SI3565-2	1.000	NPOC:1.005 mg/L		6/5/2015 11:47:13 AM	12
13	SI3565-3	1.000	NPOC:0.6960 mg/L		6/5/2015 12:00:19 PM	13
14	CCV	1.000	NPOC:97.74 mg/L	97.74%	6/5/2015 12:16:20 PM	2
15	BLANK	1.000	NPOC:0.09539 mg/L		6/5/2015 12:28:39 PM	3
16	SI3565-4	1.000	NPOC:0.7249 mg/L		6/5/2015 12:41:52 PM	14
17	SI3605-3	1.000	NPOC:0.1872 mg/L		6/5/2015 12:54:11 PM	15
18	SI3605-4	1.000	NPOC:0.2206 mg/L		6/5/2015 1:06:54 PM	16
19	CCV	1.000	NPOC:97.65 mg/L	97.65%	6/5/2015 1:23:11 PM	2
20	BLANK	1.000	NPOC:0.1080 mg/L		6/5/2015 1:35:17 PM	3
21						
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Instr.Information

System	TOC-Vcph / ASI-V
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Control Sample

Sample Name:	ALK CHECK
Sample ID:	<Untitled>
Method:	ALK CHECK DOUBLE INJECTION.tpl
Chk. Result	Control value: 0.01427 / Control within range!

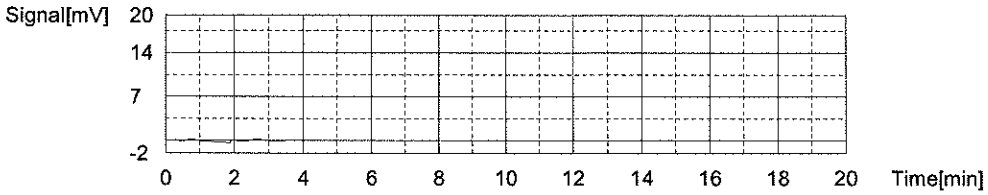
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.01427 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 9:16:16 AM
2	0.4991	0.02854mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 9:18:08 AM

Mean Area 0.2496
Mean Conc. 0.01427mg/L



Control Sample

Sample Name:	CCV
Sample ID:	<Untitled>
Method:	CCVDOUBLEINJECTION.tpl
Chk. Result	Control value: 98.62 / Control within range!

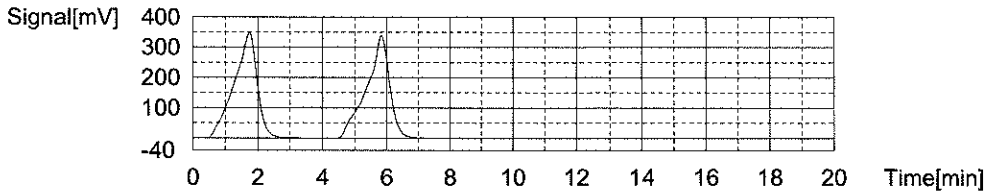
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:98.62 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1723	98.54mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 9:29:45 AM
2	1726	98.71mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 9:34:06 AM

Mean Area 1725
Mean Conc. 98.62mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANKDOUBLEINJECTION.tpl
Chk. Result Control value: 0.000 / Control within range!

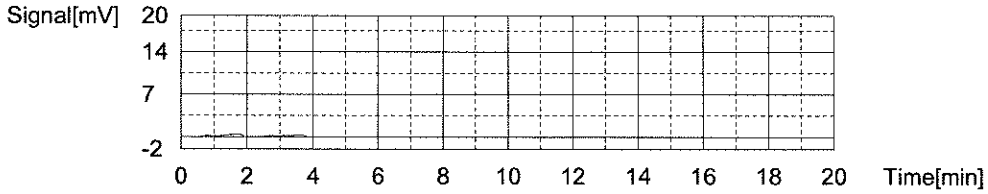
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.000 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 9:43:34 AM
2	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 9:45:58 AM

Mean Area 0.000
Mean Conc. 0.000mg/L



Control Sample

Sample Name: LCS
Sample ID: <Untitled>
Method: LCSDOUBLEINJECTION.tpl
Chk. Result Control value: 51.45 / Control within range!

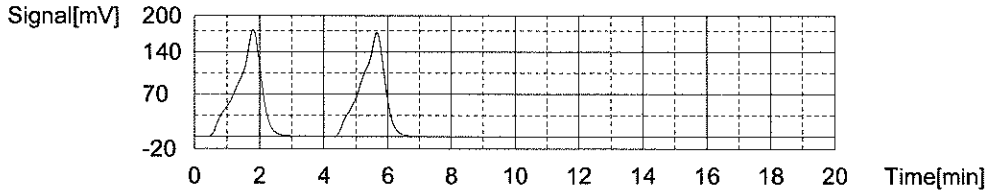
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:51.45 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	895.6	51.22mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 9:57:29 AM
2	903.6	51.68mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:01:26 AM

Mean Area 899.6
Mean Conc. 51.45mg/L



Sample

Sample Name: SI3478-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

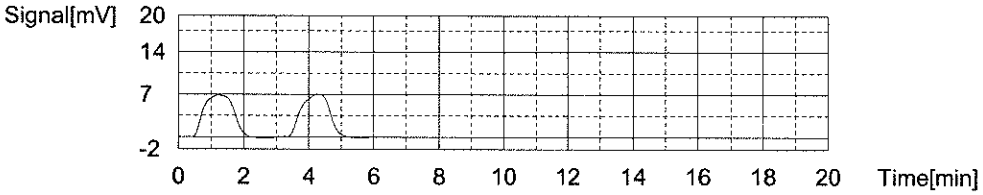
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.480 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.06	2.520mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:11:51 AM
2	42.67	2.440mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:14:58 AM

Mean Area 43.37
Mean Conc. 2.480mg/L



Sample

Sample Name: SI3478-1 D
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

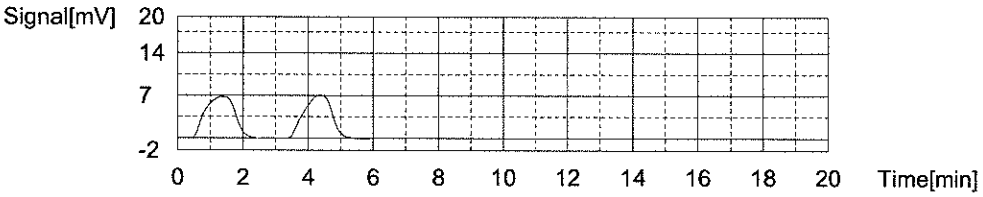
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.421 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	42.75	2.445mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:23:05 AM
2	41.92	2.397mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:26:14 AM

Mean Area 42.34
Mean Conc. 2.421mg/L



Sample

Sample Name: SI3478-2
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

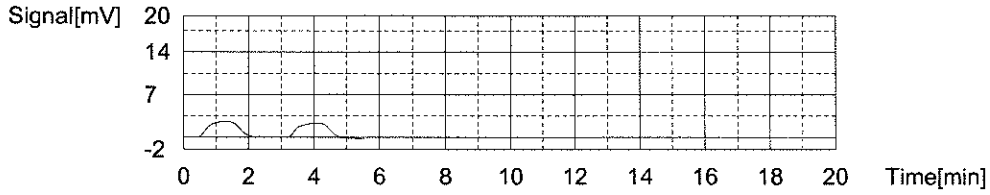
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8684 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.57	0.8904mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:36:21 AM
2	14.80	0.8464mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:39:19 AM

Mean Area 15.19
Mean Conc. 0.8684mg/L



Sample

Sample Name: SI3478-2 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

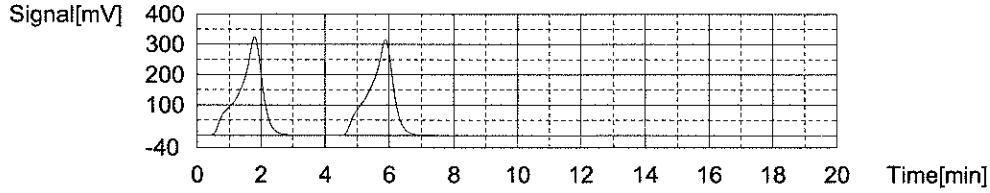
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:92.27 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1607	91.90mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:50:49 AM
2	1620	92.65mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 10:54:56 AM

Mean Area 1614
Mean Conc. 92.27mg/L



Sample

Sample Name: SI3513-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

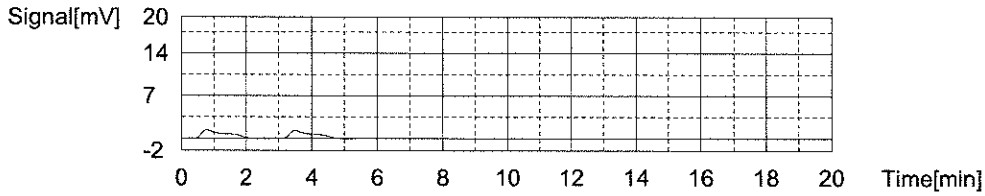
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3631 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.724	0.3845mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:05:01 AM
2	5.975	0.3417mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:07:51 AM

Mean Area 6.350
Mean Conc. 0.3631mg/L



Sample

Sample Name: SI3559-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

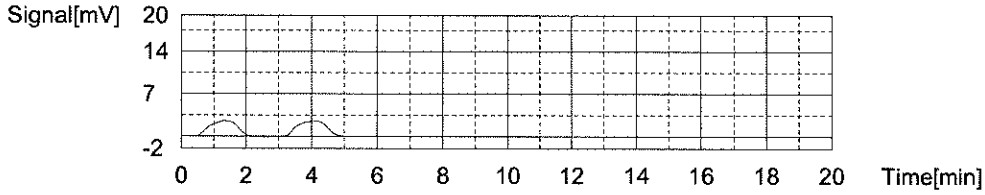
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8690 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.08	0.8624mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:17:59 AM
2	15.31	0.8756mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:21:03 AM

Mean Area 15.20
Mean Conc. 0.8690mg/L



Sample

Sample Name: SI3565-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

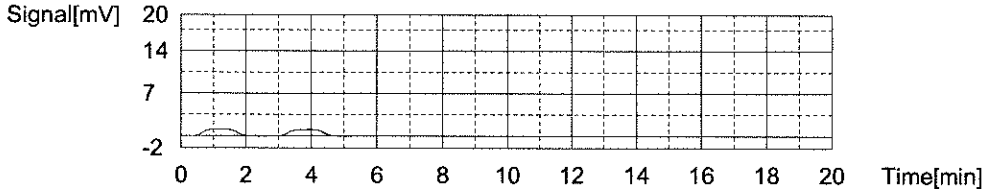
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3826 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.756	0.3864mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:31:04 AM
2	6.624	0.3788mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:33:52 AM

Mean Area 6.690
Mean Conc. 0.3826mg/L



Sample

Sample Name: SI3565-2
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

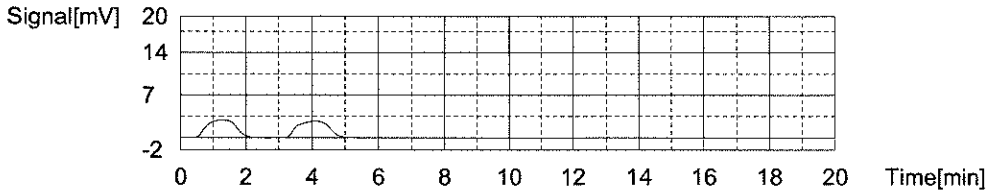
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.005 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.61	1.007mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:44:13 AM
2	17.53	1.003mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:47:13 AM

Mean Area 17.57
Mean Conc. 1.005mg/L



Sample

Sample Name: SI3565-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

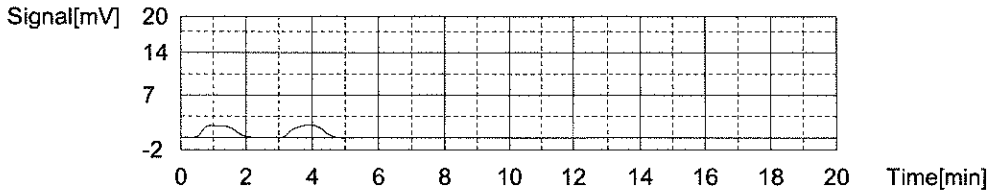
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6960 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.08	0.6908mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 11:57:26 AM
2	12.26	0.7011mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:00:19 PM

Mean Area 12.17
Mean Conc. 0.6960mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCVDOUBLEINJECTION.tpl
Chk. Result Control value: 97.74 / Control within range!

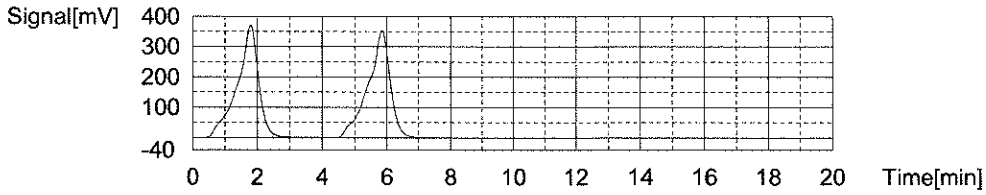
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:97.74 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1704	97.45mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:12:06 PM
2	1714	98.02mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:16:20 PM

Mean Area 1709
Mean Conc. 97.74mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANKDOUBLEINJECTION.tpl
Chk. Result Control value: 0.09539 / Control within range!

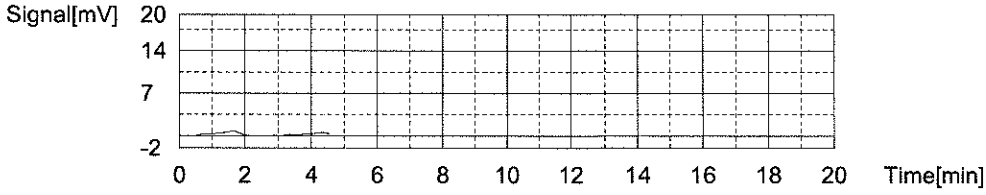
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.09539 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.336	0.1908mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:26:33 PM
2	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:28:39 PM

Mean Area 1.668
Mean Conc. 0.09539mg/L



Sample

Sample Name: SI3565-4
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

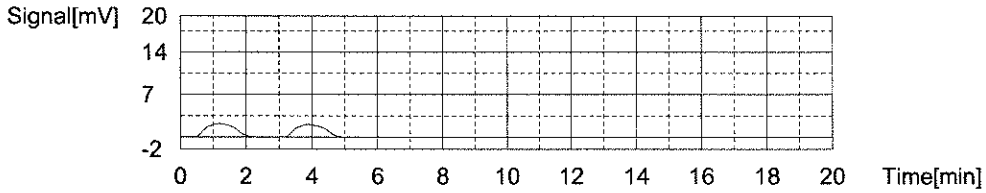
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7249 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.77	0.7303mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:38:57 PM
2	12.58	0.7194mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:41:52 PM

Mean Area 12.68
Mean Conc. 0.7249mg/L



Sample

Sample Name: SI3605-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

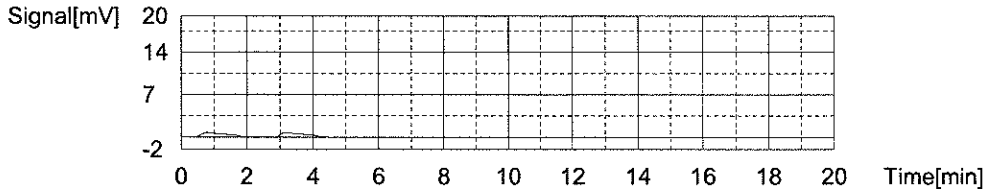
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1872 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.320	0.1899mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:51:35 PM
2	3.228	0.1846mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 12:54:11 PM

Mean Area 3.274
Mean Conc. 0.1872mg/L



Sample

Sample Name: SI3605-4
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

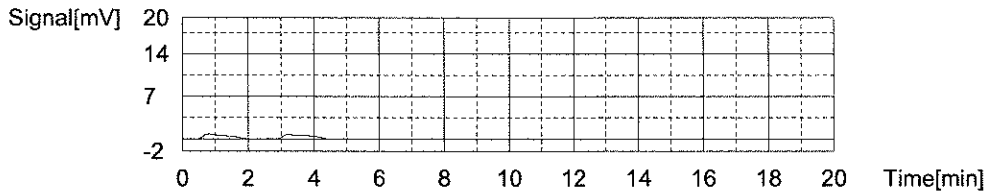
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2206 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.813	0.2181mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 1:04:04 PM
2	3.903	0.2232mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 1:06:54 PM

Mean Area 3.858
Mean Conc. 0.2206mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCVDOUBLEINJECTION.tpl
Chk. Result Control value: 97.65 / Control within range!

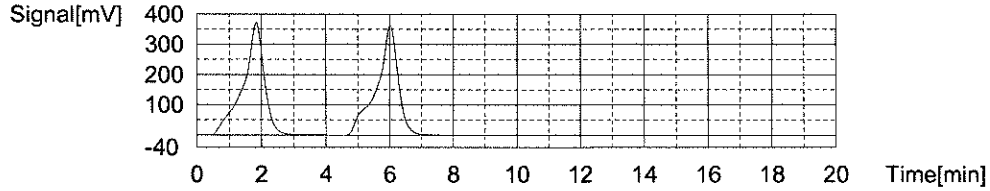
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:97.65 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1705	97.51mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 1:18:50 PM
2	1710	97.79mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 1:23:11 PM

Mean Area 1708
Mean Conc. 97.65mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANKDOUBLEINJECTION.tpl
Chk. Result Control value: 0.1080 / Control within range!

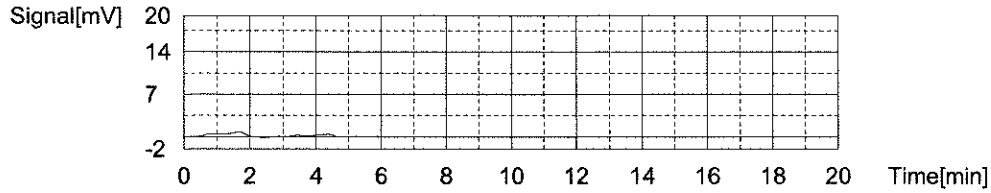
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.1080 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.777	0.2160mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 1:33:11 PM
2	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/5/2015 1:35:17 PM

Mean Area 1.889
Mean Conc. 0.1080mg/L



Instr.Information

System	TOC-Vcph / ASI-V
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

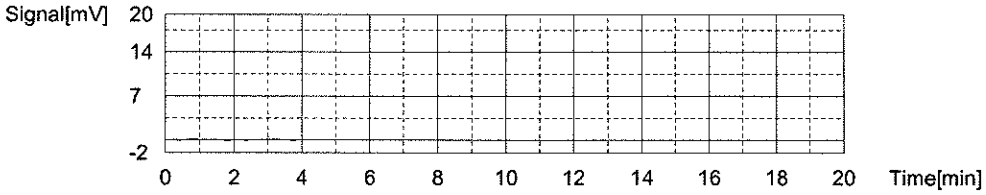
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	toc aq cal 051415.2015_05_14_09_23_05.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	150uL	1	*******		5/14/2015 9:32:10 AM
2	0.000	150uL	1	*******		5/14/2015 9:36:41 AM

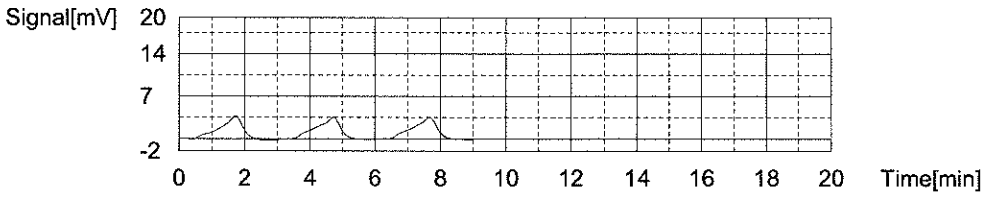
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 0.000



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	18.32	150uL	1	*******	E	5/14/2015 9:46:51 AM
2	17.74	150uL	1	*******		5/14/2015 9:52:26 AM
3	17.68	150uL	1	*******		5/14/2015 9:58:00 AM

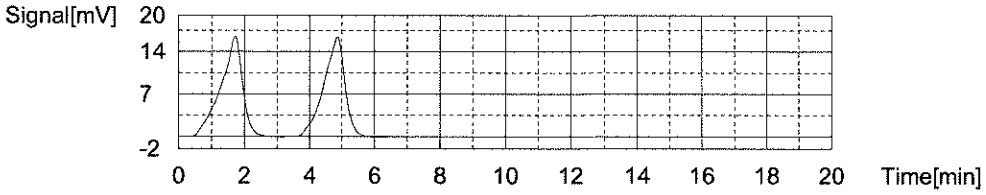
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 17.71



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	76.23	150uL	1	*******		5/14/2015 10:08:28 AM
2	76.06	150uL	1	*******		5/14/2015 10:14:15 AM

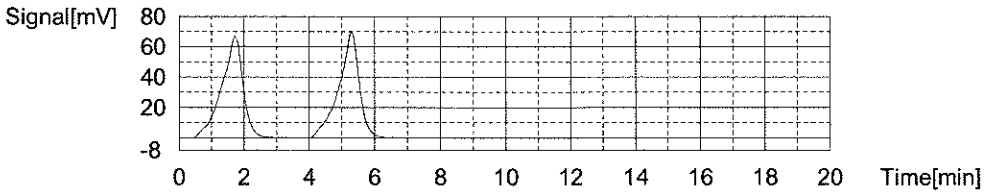
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 76.15



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	308.1	150uL	1	*******		5/14/2015 10:25:13 AM
2	307.0	150uL	1	*******		5/14/2015 10:31:16 AM

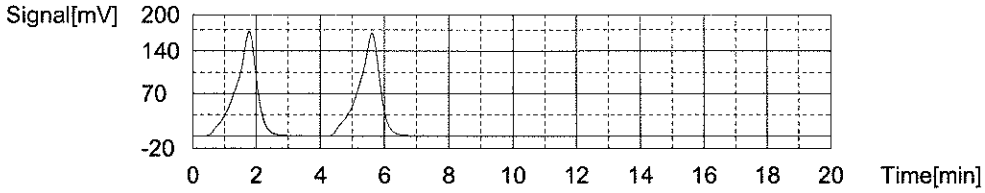
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 307.6



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	784.4	150uL	1	*******		5/14/2015 10:42:22 AM
2	782.8	150uL	1	*******		5/14/2015 10:48:46 AM

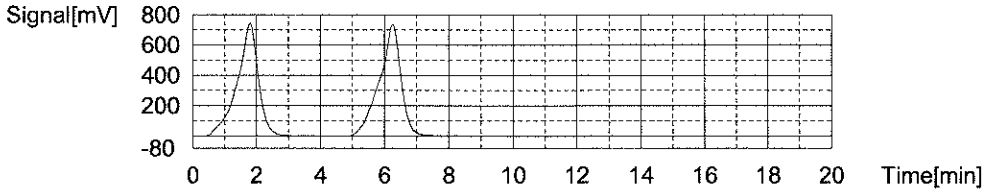
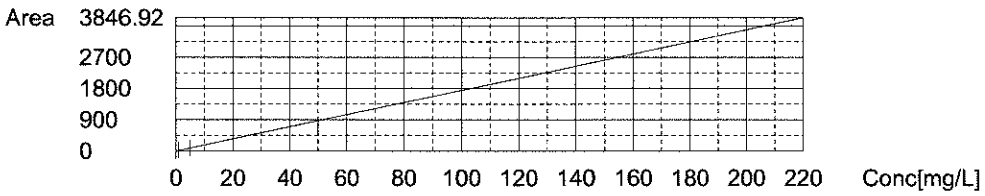
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 783.6



Conc: 200.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3491	150uL	1	*******		5/14/2015 11:00:30 AM
2	3488	150uL	1	*******		5/14/2015 11:07:37 AM

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 3490



Slope: 17.49
Intercept 0.000
r^2 0.999312