N90845.AR.001878
NWIRP BETHPAGE
5090.3a

VALIDATED DATA PACKAGE, SI4338, NWIRP BETHPAGE NY
7/17/2015
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. SF4338 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)	0000016	0000016	✓	
7. Initial & Continuing Calibration Verification (Form IIA-IN)	NA	NA	NA	
8. CRQL Standard(Form IIB-IN)	↓	↓	↓	
9. Blanks (Form III-IN)	0000011	0000013	✓	
10. ICP-AES Interference Check Sample (Form IVA-IN)	NA	NA	NA	
11. ICP-MS Interference Check Sample(Form IVB-IN)	0000015	0000015	✓	
12. Matrix Spike Sample Recovery(Form VA-IN)	NA	NA	NA	
13. Post-Digestion Spike Sample Recovery(Form VB-IN)	↓	↓	↓	
14. Duplicates (Form VI-IN)	↓	↓	↓	
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 Lab	0000020	0000067	✓	
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) 071715 (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
SI4338

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
SI4338

Sample Receipt

The following samples were received on June 19, 2015 and were logged in under Katahdin Analytical Services work order number SI4338 for a hardcopy due date of July 08, 2015.

KATAHDIN Sample No.	AECOM Sample Identification
SI4338-1	BPOW5-7-EB-061715
SI4338-2	BPOW5-7-061715-528-230

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.

One of the client IDs on the Chain of Custody exceeds the 19-character limit of the Katahdin Analytical Information Management System. Therefore, the first characters "BPO" in the client ID for sample SI4338-2 were omitted on all forms.

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 SI4338 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
07.17.15

Leslie Dimond
Quality Assurance Officer

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

Client:	Bethpage	KAS PM:	JG	Sampled By:	Client
Project:		KIMS Entry By:	AP	Delivered By:	FedEx
KAS Work Order#:	514338	KIMS Review By:		Received By:	AP
SDG #:	Cooler: 1 of 1			Date/Time Rec.:	6/19/15 0900

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): 3.2
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.

514338

RESOLUTION CONSULTANTS

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

COC No. 1 | Page 1 of 1

Project Name: Bethpage | PO No. | Project No. 6026652 Phase

Site Location: BPOW 5-7 | **Sample Analysis Requested** (*Enter number of containers for each test*)

CTO No. | RC Project Manager: Brian Caldwell

Sampler/Site Phone# Valerie Mayer 207-650-6572

Lab Name: KatahDIN | Turnaround Time(specify):

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	TOC Sulfides	TOC									Extra Volume for MS/MSD	HOLD
	Temp blank				W			1												
	BPOW5-7-EB-061715		06/17/15	1130	W	EB	N	3	X											
	BPOW5-7-061715-528-530'		06/17/15	9:15	SO	MS	N	1		X										

Field **Comments:**

Lab **Comments:**

Sample Shipment and Delivery Details

Number of coolers in shipment:

Relinquished by (signature)	Date	Time	Received by (signature)	Date	Time
1 Valerie Mayer	6/18/15	6:00	1 [signature]	6/19/15	09:00
2			2		
3			3		

Samples Iced?(check) Yes_____ No_____

Method of Shipment:

Airbill No:

Date Shipped:

(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

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Jun. 22, 2015
06:32 AM

Login Number: SI4338

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.
CHECK NO.	:	
CLIENT PO#	:	16518
CLIENT PROJECT MANAGE	:	Brian Caldwell
CONTRACT	:	
COOLER TEMPERATURE	:	3.2
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
SI4338-1	BPOW5-7-EB-061715	17-JUN-15 11:30	19-JUN-15			08-JUL-15	

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

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SI4338-2	W5-7-061715-528-530	17-JUN-15 09:15	19-JUN-15			08-JUL-15	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW9060M-TOC	15-JUL-15	4oz Glass		**BPOW5-7-061715-528-530**
Solid	S	TS	17-JUL-15			

Total Samples: **2** ***Total Analyses:*** **3**

06.22.15

0000009

Katahdin Analytical Services, Inc.
Container Transfer History for SI4338

Samplenum SI4338-1

Container Id SI4338-1A **Containertype** **40 mL Vial+H2SO4** **Matrix AQ**

Product *SM5310B-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
19-JUN-15 12:19	LOGIN	WALK-IN	APIMENTEL	N	

Container Id SI4338-1B **Containertype** **40 mL Vial+H2SO4** **Matrix AQ**

Product *SM5310B-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
19-JUN-15 12:19	LOGIN	WALK-IN	APIMENTEL	N	

Container Id SI4338-1C **Containertype** **40 mL Vial+H2SO4** **Matrix AQ**

Product *SM5310B-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
19-JUN-15 12:19	LOGIN	WALK-IN	APIMENTEL	N	

Samplenum SI4338-2

Container Id SI4338-2A **Containertype** **4oz Glass** **Matrix SL**

Product *SW9060M-TOC*

Transferdate	From	To	Analyst	Custody Break	Comments
19-JUN-15 12:19	LOGIN	WALK-IN	APIMENTEL	N	
23-JUN-15 09:13	WALK-IN	WET CHEMISTRY	CBAGLEY	N	
24-JUN-15 14:29	WALK-IN	WALK-IN	CBAGLEY	N	
24-JUN-15 15:34	WALK-IN	WET CHEMISTRY	AZAZZARA	N	
24-JUN-15 17:37	WET CHEMISTRY	WALK-IN	AZAZZARA	N	

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Katahdin
ANALYTICAL SERVICES

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	WG165532	SW846 9060A Mod.	24-JUN-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	WG165256	SM5310B	19-JUN-15	N/A	J 0.12 mg/L	1.0 mg/L	0.50

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG165418	SM2540	25-JUN-15	24-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
WG165532-2	LCS	WG165532	24-JUN-15	N/A	ug/gdrywt	400000.000	340000	86	80-120	

Total Organic Carbon

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG165256-2	LCS	WG165256	19-JUN-15	N/A	mg/L	50	47.	94	80-120	

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG165418-2	LCS	WG165418	25-JUN-15	24-JUN-15	%	90	90.	100	90-110	

Katahdin
ANALYTICAL SERVICES

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
WG165532-3	MS	SI4338-2	WG165532	24-JUN-15	ug/gdrywt	19221.25	2800	19000	83	75 - 125

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: SI4338-1
Report Date: 13-JUL-15
Client PO: 16518
Project: Navy Clean WE15-03-0
SDG: SI4338

Sample Description	Matrix	Date Sampled	Date Received
BPOW5-7-EB-061715	AQ	17-JUN-15 11:30:00	19-JUN-15

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Organic Carbon	J0.33 mg/L	1.0	0.10	.5	SM5310B	WG165256	20-JUN-15 00:57:59	N/A	N/A	

200 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: SI4338-2
Report Date: 13-JUL-15
Client PO: 16518
Project: Navy Clean WE15-03-0
SDG: SI4338

Sample Description	Matrix	Date Sampled	Date Received
W5-7-061715-528-530	SL	17-JUN-15 09:15:00	19-JUN-15

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
TOC In Soil	2800 ug/gdrywt	600	130	460	SW846 9060A Mod.	WG165532	24-JUN-15 12:29:09	N/A	N/A	
Total Solids	83. %	1		N/A	SM2540G	WG165418	25-JUN-15 10:33:13	SM2540G	24-JUN-15	

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

Raw Data Section

WET CHEMISTRY BATCH REPORT
Jun 29 2015, 02:37 pm
Batch: WG165532

Parameter: TOC In Soil

Date Analyzed: 24-JUN-15

Analyst Initials: CB

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
SI4338-2	SAMP	SW846 9060A	398.2mg	200.00ug	1	2750.7247	2800 ug/gdrywt	83.	400	130	600		
WG165532-1	MBLANK	SW846 9060A	500mg	200.00ug	1	40.56	U300 ug/gdrywt	NA	400	85.	400		
WG165532-2	LCS	SW846 9060A	40mg	200.00ug	1	343125	340000 ug/gdrywt	NA	400	85.	400		86
WG165532-3	MS	SW846 9060A	249.5mg	200.00ug	1	18774.36054	19000 ug/gdrywt	NA	400	100	480		83

Comments:

SI4338-2	BPOW5-7-061715-528-530
WG165532-1	SI4338-2
WG165532-2	SI4338-2
WG165532-3	SI4338-2

Entered by: ULB Date: 6-29-15 Accepted by: [illegible] Date: 06/29/15

WET CHEMISTRY BATCH REPORT
Jun 29 2015, 02:34 pm
Batch: WG165533

Parameter: Carbon, Percent

Date Analyzed: 24-JUN-15

Analyst Initials: CB

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
SI4234-3	SAMP	SW846 9060A	499.8mg	0.10000g	1	433.8	U0.10 %	98.	.1	0.025	0.10		
SI4298-1	SAMP	SW846 9060A	149.1mg	0.10000g	1	764.9	41. %	1.2	.1	2.0	8.0		
SI4423-1	SAMP	SW846 9060A	134.7mg	0.10000g	1	1504	32. %	3.5	.1	0.72	2.9		
SI4424-1	SAMP	SW846 9060A	114.8mg	0.10000g	1	1336	61. %	1.9	.1	1.3	5.2		
SI4427-2	SAMP	SW846 9060A	100.1mg	0.10000g	1	2450	3.0 %	83.	.1	0.030	0.12		
WG165533-1	MBLANK	SW846 9060A	500mg	0.10000g	1	20.28	U0.10 %	NA	.1	0.025	0.10		
WG165533-2	LCS	SW846 9060A	40mg	0.10000g	1	13725	34. %	NA	.1	0.025	0.10		86
WG165533-3	DUP	SW846 9060A	206.4mg	0.10000g	1	885.6	34. %	NA	.1	2.0	8.0	18	

Comments:

WG165533-1	SI4298-1
WG165533-2	SI4298-1
WG165533-3	SI4298-1

Entered by: UB Date: 6-29-15 Accepted by: [signature] Date: 06/29/15

WET CHEMISTRY BATCH REPORT
Jun 29 2015, 02:37 pm
Batch: WG165534

Parameter: TOC In Soil

Date Analyzed: 24-JUN-15

Analyst Initials: CB

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
SI4235-1	SAMP	LLOYDKAHN	122.2mg	200.00ug	1	365480.53793	360000 ug/gdrywt	13.	400	2600	12000		
WG165534-1	MBLANK	LLOYDKAHN	500mg	200.00ug	1	40.56	U300 ug/gdrywt	NA	400	85.	400		
WG165534-2	LCS	LLOYDKAHN	40mg	200.00ug	1	343125	340000 ug/gdrywt	NA	400	85.	400		86

Comments:

WG165534-1 SI4235-1
WG165534-2 SI4235-1

Entered by: CLB Date: 6-29-15 Accepted by: [signature] Date: 06/29/15

R323454
WG165534

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): % Carbon

____Total Organic Carbon (Lloyd Kahn)

R323453 WG165532 WG165533 R322452

Spiking Information		
LCS Spike Source ID / Compound:	WI3071	TV: 16000
CCV Spike Source ID / Compound:	WI3070	⊥
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	94.0%
CCB		Wet	Dry	
LCS		Wet	Dry	85.7%
LCSD		Wet	Dry	85.7%
SI4234-3	JS 6.24.15 ~~40.5~~ 49.8	Wet	Dry	
SI4235-1	122.2	Wet	Dry	
SI4298-1	149.1	Wet	Dry	
⊥ -1Dup	143.3	Wet	Dry	
SI4338-X2 JS 6.24.15	398.2	Wet	Dry	
⊥ -X2MS	249.5	Wet	Dry	
*SI4298-1	195.3	Wet	Dry	
⊥ -1	206.4	Wet	Dry	
SI4423-1	134.7	Wet	Dry	
JS 6.24.15 ~~SI4424~~-1 CCV		Wet	Dry	94.0%
CCB		Wet	Dry	
SI4424-1	114.8	Wet	Dry	
SI4427-X2 JS 6.24.15	100.1	Wet	Dry	
CCV		Wet	Dry	92.3%
CCB		Wet	Dry	
		Wet	Dry	
		Wet	Dry	
		Wet	Dry	

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

* Part of Quadruplicate for SI4298-1

Analyst:	JS	Analysis Date:	6.24.15
Reviewer:	[illegible]	Review Date:	06/29/15

	Sample Name	Dilution	Result	Comment	Date / Time
1	CCV	1.000	SSM-TC:15040 ug		6/24/2015 10:03:44 AM
2	CCB	1.000	SSM-TC:20.28 ug		6/24/2015 10:19:35 AM
3	LCS	1.000	SSM-TC:13725 ug		6/24/2015 10:43:11 AM
4	LCSD	1.000	SSM-TC:13725 ug		6/24/2015 10:55:04 AM
5	SI4234-3	1.000	SSM-TC:433.8 ug		6/24/2015 11:45:12 AM
6	SI4235-1	1.000	SSM-TC:5961 ug		6/24/2015 11:54:19 AM
7	SI4298-1	1.000	SSM-TC:764.9 ug		6/24/2015 12:02:05 PM
8	SI4298-1 D	1.000	SSM-TC:691.3 ug		6/24/2015 12:20:19 PM
9	SI4338-1	1.000	SSM-TC:913.6 ug		6/24/2015 12:29:09 PM
10	SI4338-1 MS	1.000	SSM-TC:3907 ug		6/24/2015 12:45:22 PM
11	SI4298-1 D	1.000	SSM-TC:916.7 ug		6/24/2015 12:59:54 PM
12	SI4298-1 D	1.000	SSM-TC:885.6 ug		6/24/2015 1:10:09 PM
13	SI4423-1	1.000	SSM-TC:1504 ug		6/24/2015 1:17:46 PM
14	CCV	1.000	SSM-TC:15040 ug		6/24/2015 1:26:43 PM
15	CCB	1.000	SSM-TC:0.000 ug		6/24/2015 1:32:10 PM
16	SI4424-1	1.000	SSM-TC:1336 ug		6/24/2015 1:41:39 PM
17	SI4427-1	1.000	SSM-TC:2450 ug		6/24/2015 1:54:24 PM
18	CCV	1.000	SSM-TC:14860 ug		6/24/2015 2:13:50 PM
19	CCB	1.000	SSM-TC:0.000 ug		6/24/2015 2:20:07 PM
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

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	

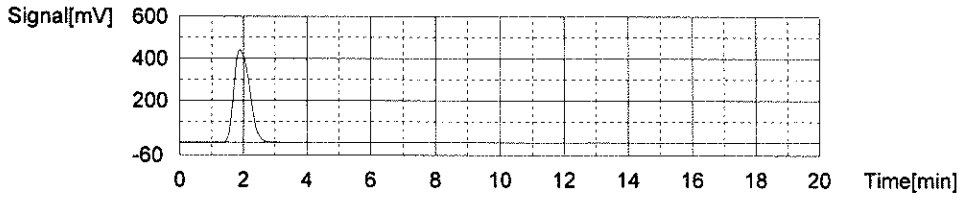
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:15040 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1498	1498	15040ug	15040ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 10:03:44 AM

Mean Area	1498
Mean CNV	1498
Mean Conc.	15040ug



Sample

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

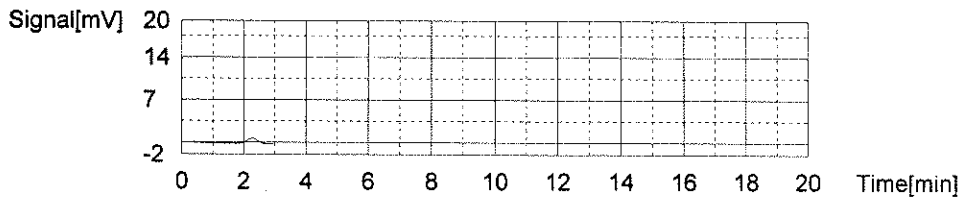
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:20.28 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2.020	2.020	20.28ug	20.28ug	500.0mg	500uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 10:19:35 AM

Mean Area	2.020
Mean CNV	2.020
Mean Conc.	20.28ug



Sample

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

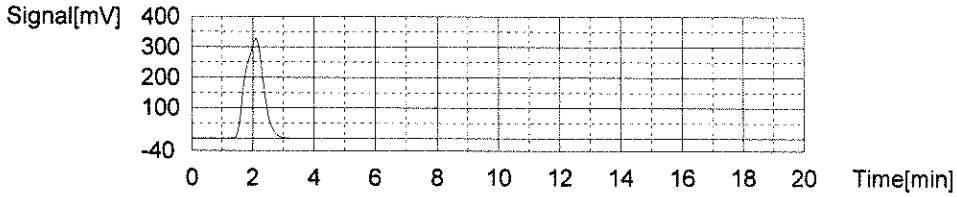
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:13725 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1367	1367	13725ug	13725ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 10:43:11 AM

Mean Area 1367
Mean CNV 1367
Mean Conc. 13725ug



Sample

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

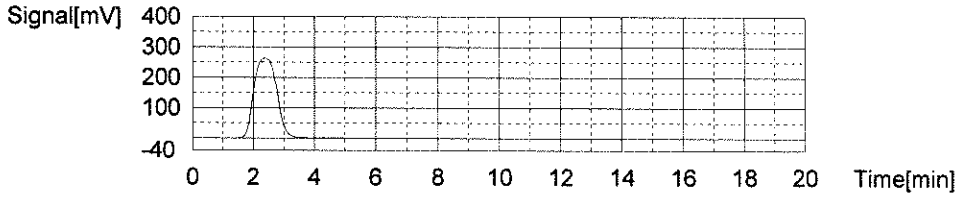
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:13725 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1367	1367	13725ug	13725ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 10:55:04 AM

Mean Area 1367
Mean CNV 1367
Mean Conc. 13725ug



Sample

Sample Name: SI4234-3
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

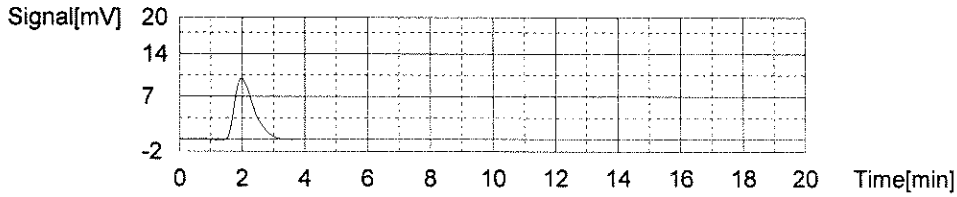
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:433.8 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	43.21	43.21	433.8ug	433.8ug	499.8mg	499uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 11:45:12 AM

Mean Area 43.21
Mean CNV 43.21
Mean Conc. 433.8ug



Sample

Sample Name: SI4235-1
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

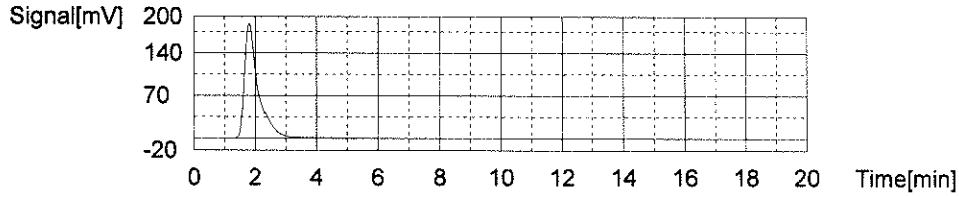
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:5961 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	593.7	593.7	5961ug	5961ug	122.2mg	122uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 11:54:19 AM

Mean Area 593.7
Mean CNV 593.7
Mean Conc. 5961ug



Sample

Sample Name: SI4298-1
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

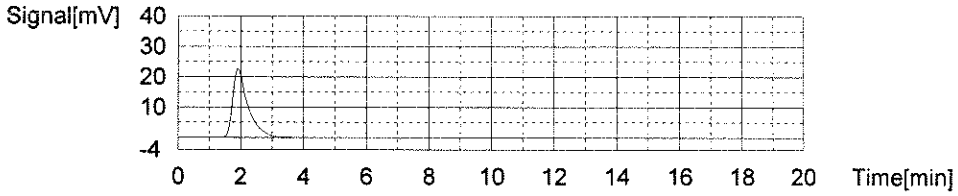
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:764.9 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	76.18	76.18	764.9ug	764.9ug	149.1mg	149uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 12:02:05 PM

Mean Area 76.18
Mean CNV 76.18
Mean Conc. 764.9ug



Sample

Sample Name: SI4298-1 D
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

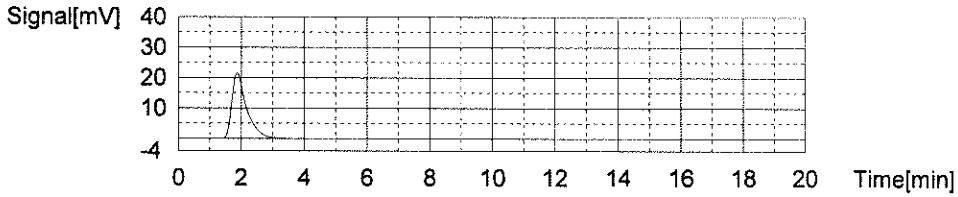
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:691.3 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	68.85	68.85	691.3ug	691.3ug	143.3mg	143uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 12:20:19 PM

Mean Area 68.85
Mean CNV 68.85
Mean Conc. 691.3ug



Sample

Sample Name: SI4338-1
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

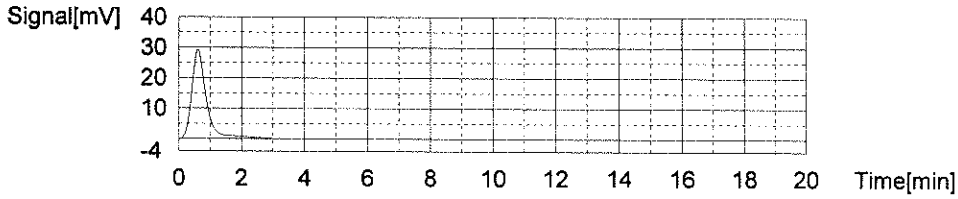
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:913.6 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	90.99	90.99	913.6ug	913.6ug	398.2mg	398uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 12:29:09 PM

Mean Area 90.99
Mean CNV 90.99
Mean Conc. 913.6ug



Sample

Sample Name: SI4338-1 MS
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

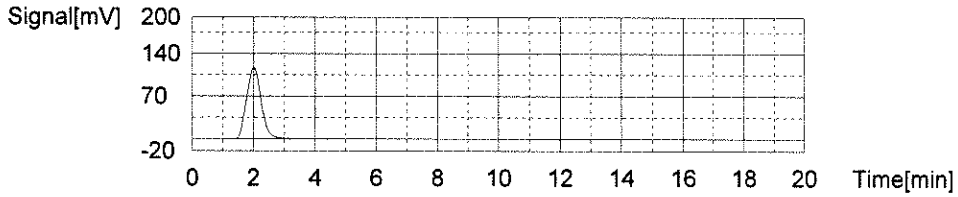
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:3907 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	389.1	389.1	3907ug	3907ug	249.5mg	249uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 12:45:22 PM

Mean Area 389.1
Mean CNV 389.1
Mean Conc. 3907ug



Sample

Sample Name: SI4298-1 D
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

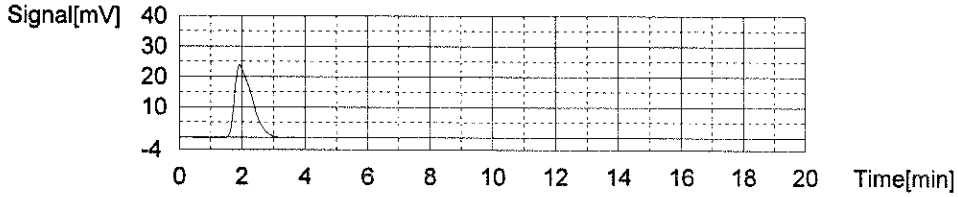
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:916.7 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	91.30	91.30	916.7ug	916.7ug	195.3mg	195uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 12:59:54 PM

Mean Area 91.30
Mean CNV 91.30
Mean Conc. 916.7ug



Sample

Sample Name: SI4298-1 D
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

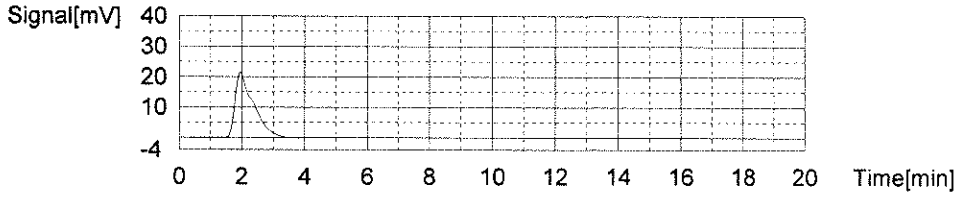
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:885.6 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	88.20	88.20	885.6ug	885.6ug	206.4mg	206uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 1:10:09 PM

Mean Area 88.20
Mean CNV 88.20
Mean Conc. 885.6ug



Sample

Sample Name: SI4423-1
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

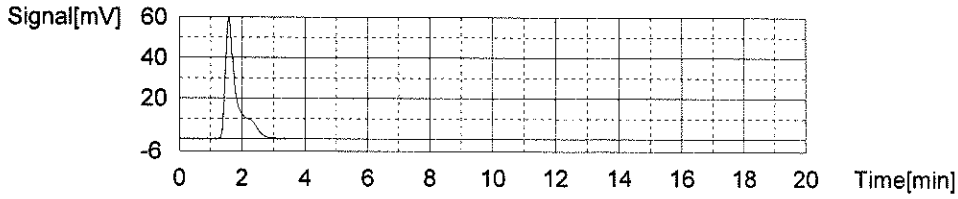
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1504 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	149.8	149.8	1504ug	1504ug	134.7mg	134uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 1:17:46 PM

Mean Area 149.8
Mean CNV 149.8
Mean Conc. 1504ug



Sample

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

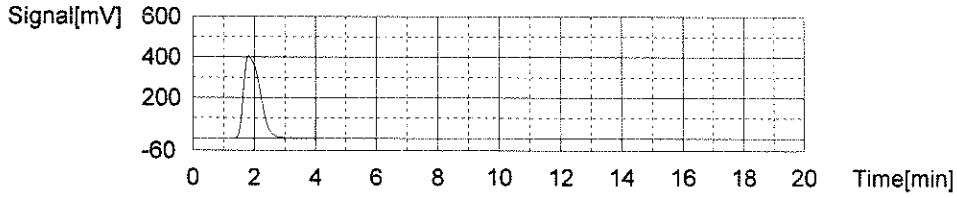
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:15040 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1498	1498	15040ug	15040ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 1:26:43 PM

Mean Area 1498
Mean CNV 1498
Mean Conc. 15040ug



Sample

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

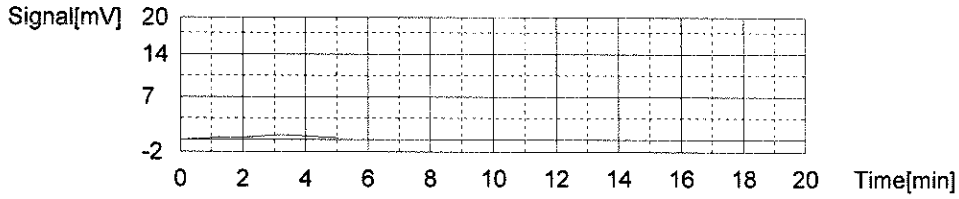
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:0.000 ug

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	6/24/2015 1:32:10 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. 0.000ug



Sample

Sample Name: SI4424-1
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

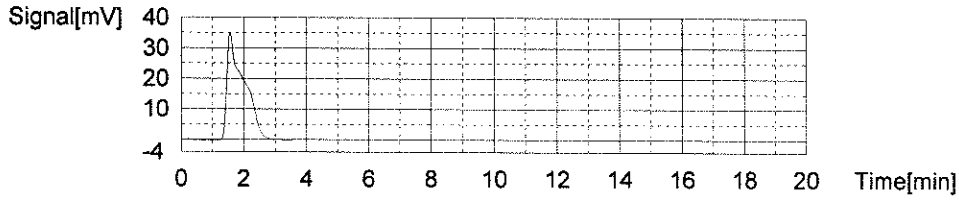
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1336 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	133.1	133.1	1336ug	1336ug	114.8mg	114uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 1:41:39 PM

Mean Area 133.1
Mean CNV 133.1
Mean Conc. 1336ug



Sample

Sample Name: SI4427-1
Sample ID: <Untitled>
Origin: tc method SOILS.met
Chk. Result

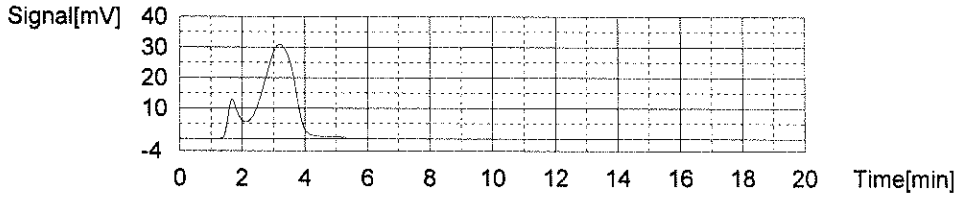
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:2450 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	244.0	244.0	2450ug	2450ug	100.1mg	100uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 1:54:24 PM

Mean Area 244.0
Mean CNV 244.0
Mean Conc. 2450ug



Sample

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

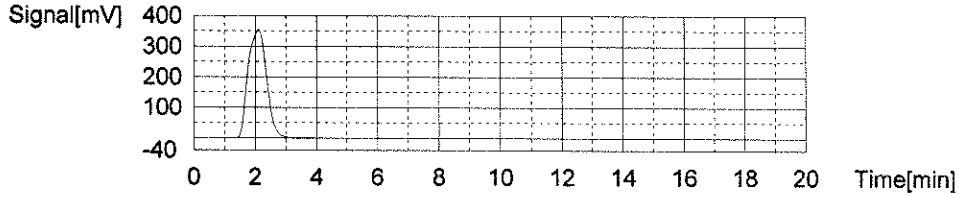
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:14860 ug

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1480	1480	14860ug	14860ug	40.00mg	40uL		toc sl cal 051315.2015_05_13_09_28_03.cal	6/24/2015 2:13:50 PM

Mean Area 1480
Mean CNV 1480
Mean Conc. 14860ug



Sample

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

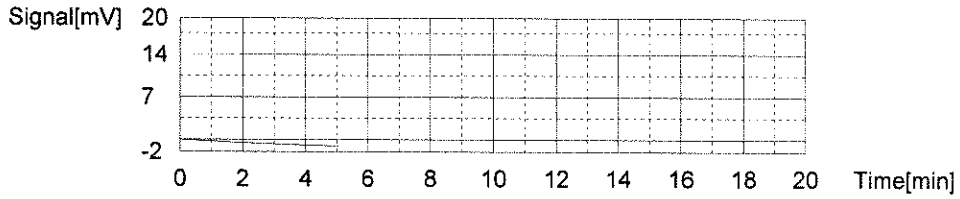
Type	Anal.	Dil.	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:0.000 ug

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	6/24/2015 2:20:07 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

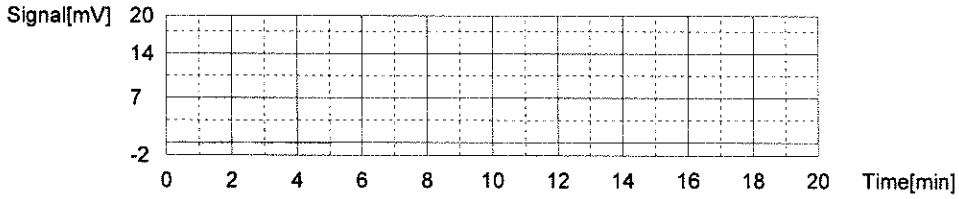
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	toc sl cal 051315.2015_05_13_09_28_03.cal

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

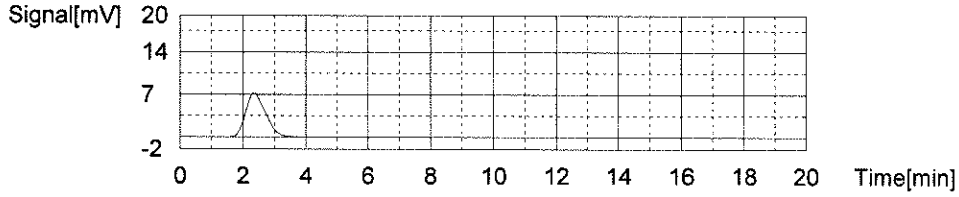
Mean Area 0.000
Mean CNV 0.000



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

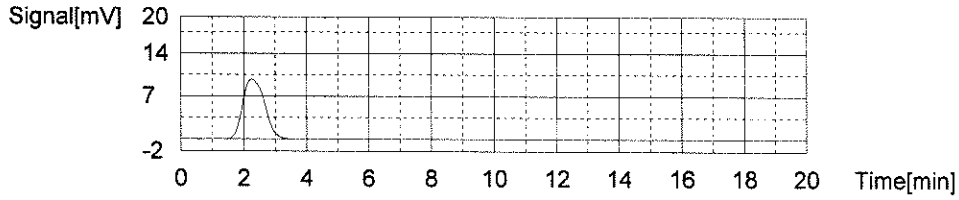
Mean Area 31.54
Mean CNV 31.54



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

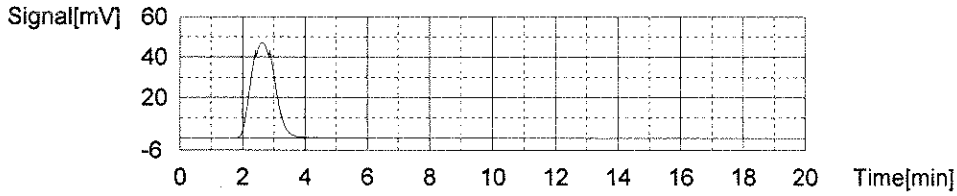
Mean Area 47.46
Mean CNV 47.46



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

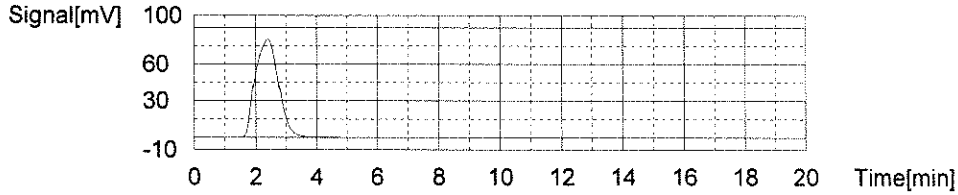
Mean Area 250.5
Mean CNV 250.5



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

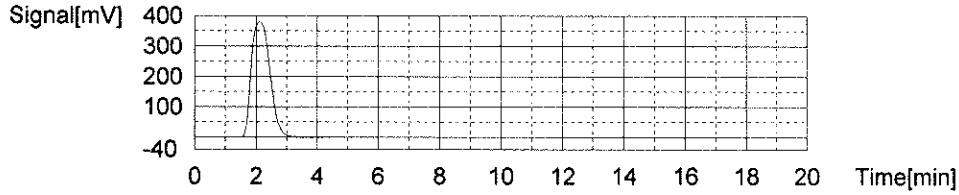
Mean Area 426.7
Mean CNV 426.7



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

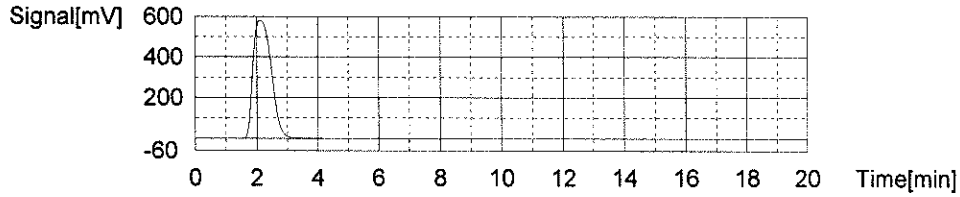
Mean Area 1602
Mean CNV 1602



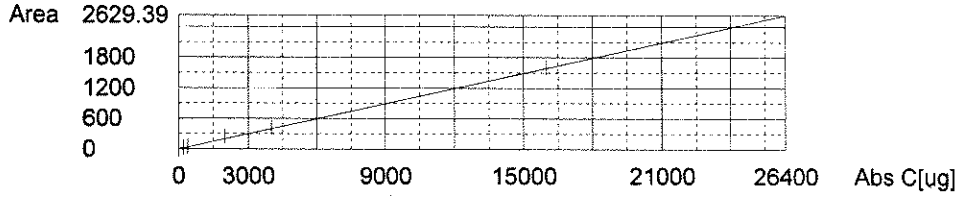
AbsC: 24000ug

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



WET CHEMISTRY BATCH REPORT
Jun 29 2015, 12:46 pm
Batch: WG165254

Parameter: Total Organic Carbon

Date Analyzed: 19-JUN-15

Analyst Initials: CB

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
SI4199-1	SAMP	EPA 415.1	20.000mL	20.000mL	1	.1591	U1.0 mg/L	NA	1	.1023	1.0		
SI4282-1	SAMP	EPA 415.1	20.000mL	20.000mL	1	1.176	1.2 mg/L	NA	1	.1023	1.0		
SI4282-10	SAMP	EPA 415.1	20.000mL	20.000mL	1	.4604	U1.0 mg/L	NA	1	.1023	1.0		
SI4282-11	SAMP	EPA 415.1	20.000mL	20.000mL	1	.4774	U1.0 mg/L	NA	1	.1023	1.0		
SI4282-2	SAMP	EPA 415.1	20.000mL	20.000mL	1	8.919	8.9 mg/L	NA	1	.1023	1.0		
SI4282-3	SAMP	EPA 415.1	20.000mL	20.000mL	1	9.267	9.3 mg/L	NA	1	.1023	1.0		
SI4282-4	SAMP	EPA 415.1	20.000mL	20.000mL	1	25.93	26. mg/L	NA	1	.1023	1.0		
SI4282-5	SAMP	EPA 415.1	20.000mL	20.000mL	1	1.151	1.2 mg/L	NA	1	.1023	1.0		
SI4282-6	SAMP	EPA 415.1	20.000mL	20.000mL	1	.4181	U1.0 mg/L	NA	1	.1023	1.0		
SI4282-7	SAMP	EPA 415.1	20.000mL	20.000mL	1	.3768	U1.0 mg/L	NA	1	.1023	1.0		
SI4282-8	SAMP	EPA 415.1	20.000mL	20.000mL	1	.3782	U1.0 mg/L	NA	1	.1023	1.0		
SI4282-9	SAMP	EPA 415.1	20.000mL	20.000mL	1	.8041	U1.0 mg/L	NA	1	.1023	1.0		
WG165254-1	MBLANK	EPA 415.1	20.000mL	20.000mL	1	.1224	J0.12 mg/L	NA	1	0.10	1.0		
WG165254-2	LCS	EPA 415.1	20.000mL	20.000mL	1	47.18	47. mg/L	NA	1	0.10	1.0		94
WG165254-3	DUP	EPA 415.1	20.000mL	20.000mL	1	.02427	U1.0 mg/L	NA	1	.1023	1.0	NC	
WG165254-6	MS	EPA 415.1	20.000mL	20.000mL	1	85.15	85. mg/L	NA	1	.1023	1.0		84
WG165254-7	MS	EPA 415.1	20.000mL	20.000mL	1	83.47	83. mg/L	NA	1	.1023	1.0		83

Comments:

WG165254-1	SI4199-1
WG165254-2	SI4199-1
WG165254-3	SI4199-1
WG165254-6	SI4282-1
WG165254-7	SI4282-11

Entered by: LLB Date: 6-29-15 Accepted by: [signature] Date: 06/30/15

WET CHEMISTRY BATCH REPORT
Jun 22 2015, 11:51 am
Batch: WG165256

Parameter: Total Organic Carbon

Date Analyzed: 19-JUN-15

Analyst Initials: CB

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
SI4260-1	SAMP	SM5310B	20.000mL	20.000mL	1	11.87	12. mg/L	NA	1	.1023	1.0		
SI4261-1	SAMP	SM5310B	20.000mL	20.000mL	1	5.564	5.6 mg/L	NA	1	.1023	1.0		
WG165256-1	MBLANK	SM5310B	20.000mL	20.000mL	1	.1224	J0.12 mg/L	NA	1	0.10	1.0		
WG165256-2	LCS	SM5310B	20.000mL	20.000mL	1	47.18	47. mg/L	NA	1	0.10	1.0		94
WG165256-3	MS	SM5310B	20.000mL	20.000mL	1	95.68	96. mg/L	NA	1	.1023	1.0		84

Comments:

WG165256-1	SI4260-1
WG165256-2	SI4260-1
WG165256-3	SI4260-1
WG165256-4	SI4319-1

Entered by: CLB Date: 6-22-15 Accepted by: [illegible] Date: 06/30/15

WET CHEMISTRY BATCH REPORT
Jun 22 2015, 11:51 am
Batch: WG165256

Parameter: Total Organic Carbon

Date Analyzed: 20-JUN-15

Analyst Initials: CB

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
SI4319-1	SAMP	SM5310B	20.000mL	20.000mL	1	8.793	8.8 mg/L	NA	1	.1023	1.0		
SI4338-1	SAMP	SM5310B	20.000mL	20.000mL	1	.3263	J0.33 mg/L	NA	1	0.10	1.0		
WG165256-4	DUP	SM5310B	20.000mL	20.000mL	1	8.941	8.9 mg/L	NA	1	.1023	1.0	2	

Comments:

WG165256-1	SI4260-1
WG165256-2	SI4260-1
WG165256-3	SI4260-1
WG165256-4	SI4319-1

Entered by: CLB Date: 6-22-15 Accepted by: [signature] Date: 06/30/15

KATAHDIN ANALYTICAL SERVICES, INC.
CARBON ANALYSIS RUN INFORMATION SHEET

INSTR. ID: WC2 (Shimadzu TOC-V_{CPH}) **ANALYST:** CLB **DATE:** 6-22-15

FILE NAME: TOC AQ 6-19-15 **METHOD(S):**

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

CALIBRATION DATE: 5-14-15 **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	2,000

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	W13073	6-8-15	9-8-15	100 mg C/L
LCS	W13074	6-8-15	9-8-15	50 mg C/L
MS Stock Std. *	W12929	4-10-15	7-10-15	2000 mg C/L
Alkalinity Check	W12995	5-8-15	11-18-15	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:

	Sample Name	Dilution	Result	Comment	Date / Time	Vial
1	ALK CHECK	1.000	NPOC:0.7855 mg/L		6/19/2015 3:21:24 PM	1
2	CCV	1.000	NPOC:97.13 mg/L		6/19/2015 4:10:22 PM	2
3	BLANK	1.000	NPOC:0.1224 mg/L		6/19/2015 4:22:42 PM	3
4	LCS	1.000	NPOC:47.18 mg/L		6/19/2015 4:37:45 PM	4
5	SI4199-1	1.000	NPOC:0.1591 mg/L		6/19/2015 4:50:23 PM	5
6	SI4199-1 DUP	1.000	NPOC:0.02427 mg/L		6/19/2015 5:02:08 PM	6
7	SI4282-1	1.000	NPOC:1.176 mg/L		6/19/2015 5:14:46 PM	7
8	SI4282-1 MS	1.000	NPOC:85.15 mg/L		6/19/2015 5:30:01 PM	8
9	SI4282-2	1.000	NPOC:8.919 mg/L		6/19/2015 5:43:54 PM	9
10	SI4282-3	1.000	NPOC:9.267 mg/L		6/19/2015 5:57:33 PM	10
11	SI4282-4	1.000	NPOC:25.93 mg/L		6/19/2015 6:11:58 PM	11
12	SI4282-5	1.000	NPOC:1.151 mg/L		6/19/2015 6:24:50 PM	12
13	SI4282-6	1.000	NPOC:0.4181 mg/L		6/19/2015 6:37:16 PM	13
14	CCV	1.000	NPOC:97.33 mg/L		6/19/2015 6:52:42 PM	2
15	CCB	1.000	NPOC:0.2420 mg/L		6/19/2015 7:05:14 PM	3
16	SI4282-7	1.000	NPOC:0.3768 mg/L		6/19/2015 7:17:46 PM	14
17	SI4282-8	1.000	NPOC:0.3782 mg/L		6/19/2015 7:30:17 PM	15
18	SI4282-9	1.000	NPOC:0.8041 mg/L		6/19/2015 7:42:47 PM	16
19	SI4282-10	1.000	NPOC:0.4604 mg/L		6/19/2015 7:55:15 PM	17
20	SI4282-11	1.000	NPOC:0.4774 mg/L		6/19/2015 8:07:45 PM	18
21	SI4282-11 MS	1.000	NPOC:83.47 mg/L		6/19/2015 8:22:57 PM	19
22	SI4260-1	1.000	NPOC:11.87 mg/L		6/19/2015 8:36:49 PM	20
23	SI4260-1 MS	1.000	NPOC:95.68 mg/L		6/19/2015 8:52:02 PM	21
24	SI4261-1	1.000	NPOC:5.564 mg/L		6/19/2015 9:05:22 PM	22
25	SI4309-1	1.000	NPOC:0.3359 mg/L		6/19/2015 9:18:10 PM	23
26	CCV	1.000	NPOC:97.88 mg/L		6/19/2015 9:33:55 PM	61
27	CCB	1.000	NPOC:0.01868 mg/L		6/19/2015 9:46:08 PM	62
28	SI4309-2	1.000	NPOC:0.7575 mg/L		6/19/2015 9:59:11 PM	24
29	SI4309-3	1.000	NPOC:1.773 mg/L		6/19/2015 10:12:12 PM	25
30	SI4309-4	1.000	NPOC:0.3495 mg/L		6/19/2015 10:24:52 PM	26
31	SI4309-5	1.000	NPOC:2.265 mg/L		6/19/2015 10:37:50 PM	27
32	SI4309-6	1.000	NPOC:1.017 mg/L		6/19/2015 10:50:06 PM	28
33	SI4309-7	1.000	NPOC:0.4551 mg/L		6/19/2015 11:02:42 PM	29
34	SI4309-8	1.000	NPOC:0.3631 mg/L		6/19/2015 11:15:06 PM	30
35	SI4309-9	1.000	NPOC:0.2928 mg/L		6/19/2015 11:27:22 PM	31
36	SI4309-10	1.000	NPOC:0.4896 mg/L		6/19/2015 11:39:51 PM	32
37	SI4309-10 MS	1.000	NPOC:84.35 mg/L		6/19/2015 11:55:01 PM	33
38	CCV	1.000	NPOC:97.76 mg/L		6/20/2015 12:10:49 AM	61
39	CCB	1.000	NPOC:0.000 mg/L		6/20/2015 12:22:27 AM	62
40	SI4319-1	1.000	NPOC:8.793 mg/L		6/20/2015 12:36:32 AM	34
41	SI4319-1 DUP	1.000	NPOC:8.941 mg/L		6/20/2015 12:48:00 AM	34
42	SI4338-1	1.000	NPOC:0.3263 mg/L		6/20/2015 1:00:47 AM	35
43	CCV	1.000	NPOC:97.56 mg/L		6/20/2015 1:16:40 AM	63
44	CCB	1.000	NPOC:0.02079 mg/L		6/20/2015 1:28:42 AM	64

Instr.Information

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

Sample

Sample Name:	ALK CHECK
Sample ID:	<Untitled>
Origin:	DOUBLE INJECTION.met
Chk. Result	

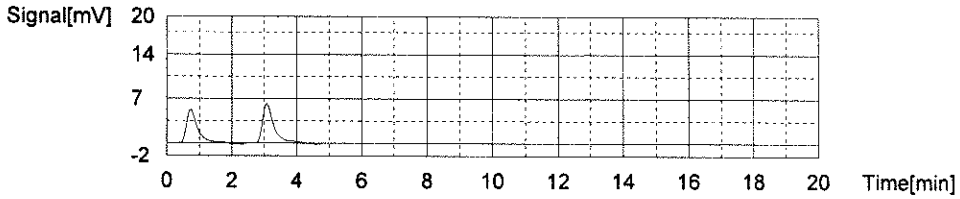
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7855 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.60	0.7206mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 3:18:50 PM
2	14.87	0.8504mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 3:21:24 PM

Mean Area	13.74
Mean Conc.	0.7855mg/L



Sample

Sample Name:	CCV
Sample ID:	<Untitled>
Origin:	DOUBLE INJECTION.met
Chk. Result	

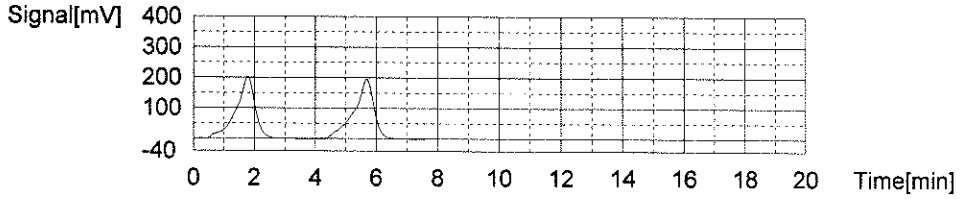
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:51.09 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	889.6	50.87mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 3:32:51 PM
2	897.1	51.30mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 3:36:47 PM

Mean Area	893.4
Mean Conc.	51.09mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

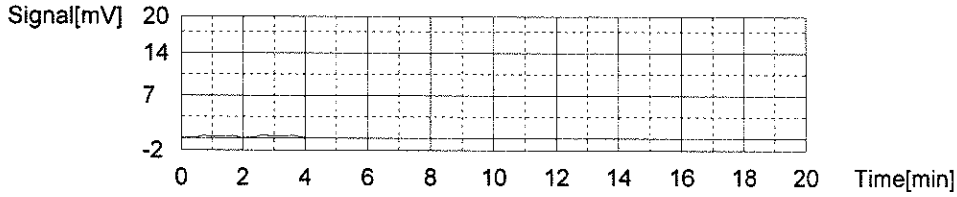
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.04464 mg/L

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	6/19/2015 3:46:08 PM
2	1.561	0.08927mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 3:48:59 PM

Mean Area 0.7805
Mean Conc. 0.04464mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCVDOUBLEINJECTION.tpl
Chk. Result Control value: 97.13 / Control within range!

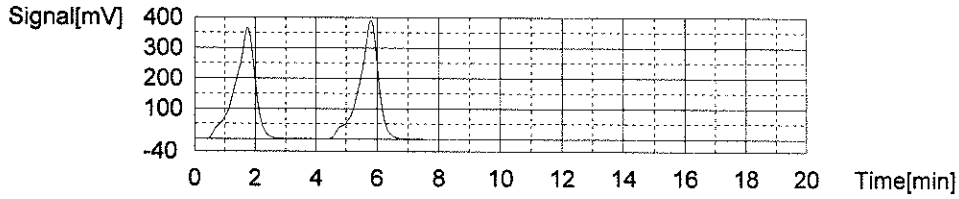
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:97.13 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1696	96.99mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 4:06:06 PM
2	1701	97.28mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 4:10:22 PM

Mean Area 1699
Mean Conc. 97.13mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANKDOUBLEINJECTION.tpl
Chk. Result Control value: 0.1224 / Control within range!

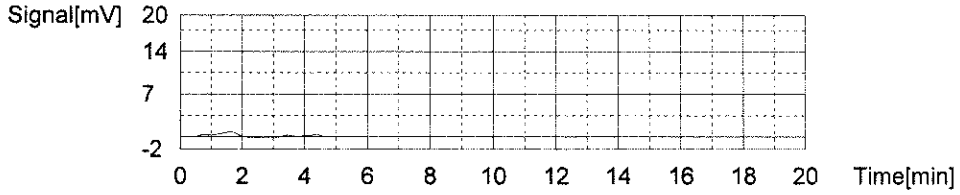
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.1224 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.282	0.2449mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 4:20:36 PM
2	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 4:22:42 PM

Mean Area 2.141
Mean Conc. 0.1224mg/L



Control Sample

Sample Name: LCS
Sample ID: <Untitled>
Method: LCSDOUBLEINJECTION.tpl
Chk. Result Control value: 47.18 / Control within range!

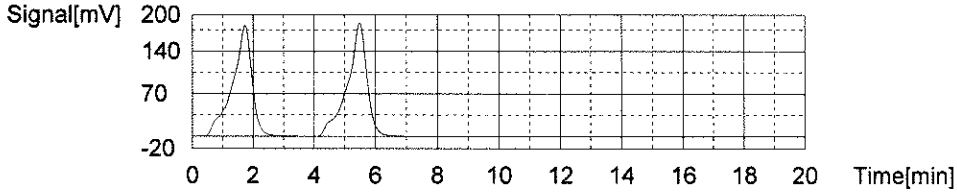
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:47.18 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	822.2	47.02mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 4:33:45 PM
2	827.7	47.33mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 4:37:45 PM

Mean Area 825.0
Mean Conc. 47.18mg/L



Sample

Sample Name: SI4199-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

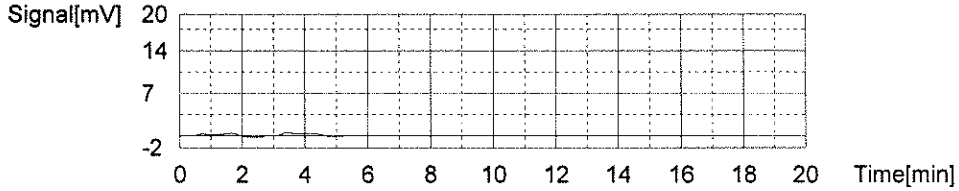
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1591 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.763	0.1580mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 4:47:39 PM
2	2.802	0.1602mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 4:50:23 PM

Mean Area 2.783
Mean Conc. 0.1591mg/L



Sample

Sample Name: SI4199-1 DUP
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

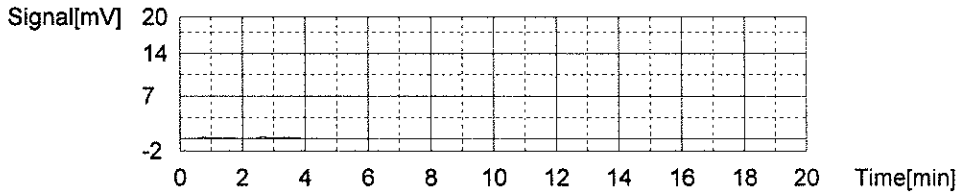
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02427 mg/L

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	6/19/2015 4:59:33 PM
2	0.8488	0.04854mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:02:08 PM

Mean Area 0.4244
Mean Conc. 0.02427mg/L



Sample

Sample Name: SI4282-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

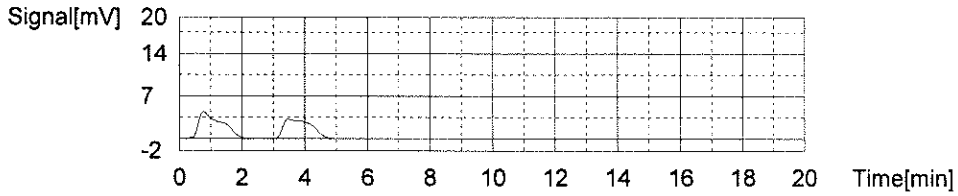
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.176 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.66	1.239mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:11:52 PM
2	19.48	1.114mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:14:46 PM

Mean Area 20.57
Mean Conc. 1.176mg/L



Sample

Sample Name: SI4282-1 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

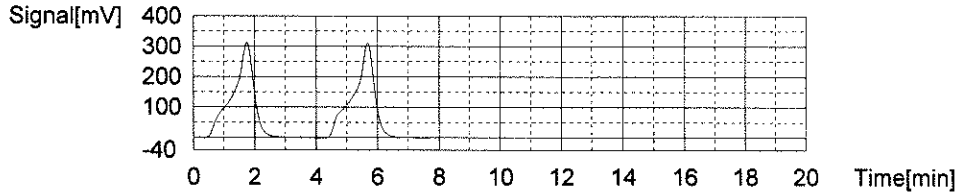
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:85.15 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1489	85.15mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:26:03 PM
2	1489	85.15mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:30:01 PM

Mean Area 1489
Mean Conc. 85.15mg/L



Sample

Sample Name: SI4282-2
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

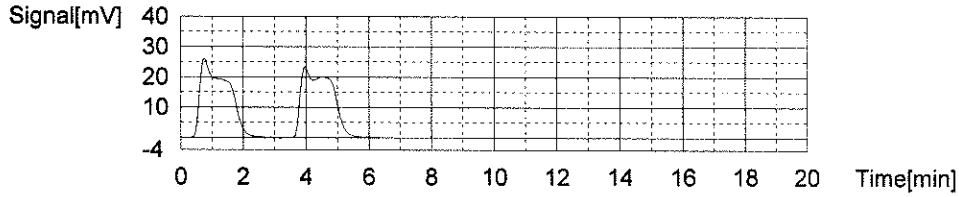
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:8.919 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	157.2	8.990mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:40:28 PM
2	154.7	8.847mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:43:54 PM

Mean Area 156.0
Mean Conc. 8.919mg/L



Sample

Sample Name: SI4282-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

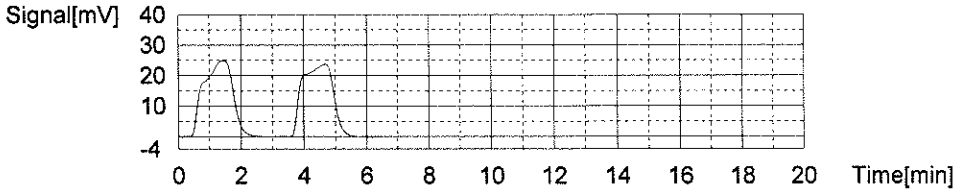
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:9.267 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	161.0	9.207mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:54:13 PM
2	163.1	9.327mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 5:57:33 PM

Mean Area 162.1
Mean Conc. 9.267mg/L



Sample

Sample Name: SI4282-4
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

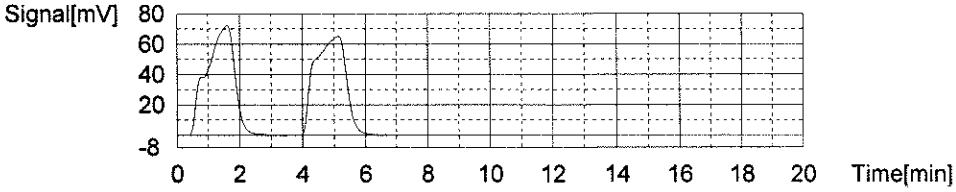
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.93 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	449.5	25.71mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 6:08:20 PM
2	457.4	26.16mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 6:11:58 PM

Mean Area 453.5
Mean Conc. 25.93mg/L



Sample

Sample Name: SI4282-5
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

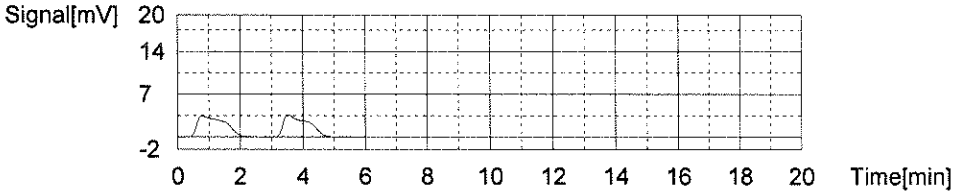
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.151 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.58	1.177mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 6:21:56 PM
2	19.67	1.125mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 6:24:50 PM

Mean Area 20.13
Mean Conc. 1.151mg/L



Sample

Sample Name: SI4282-6
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

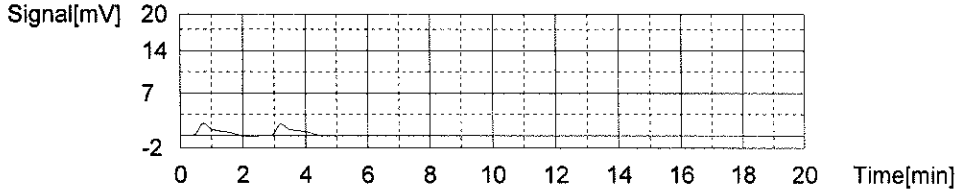
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4181 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.186	0.4110mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 6:34:32 PM
2	7.437	0.4253mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 6:37:16 PM

Mean Area 7.312
Mean Conc. 0.4181mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

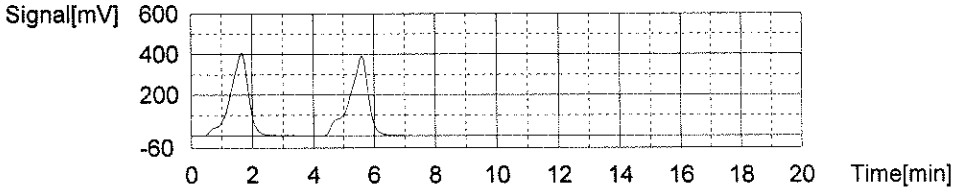
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:97.33 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1697	97.05mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 6:48:34 PM
2	1707	97.62mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 6:52:42 PM

Mean Area 1702
Mean Conc. 97.33mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

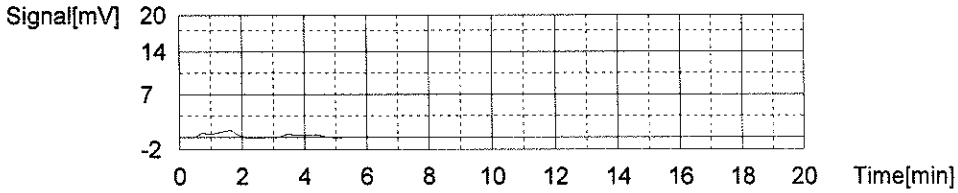
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2420 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.976	0.3418mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:02:31 PM
2	2.487	0.1422mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:05:14 PM

Mean Area 4.232
Mean Conc. 0.2420mg/L



Sample

Sample Name: SI4282-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

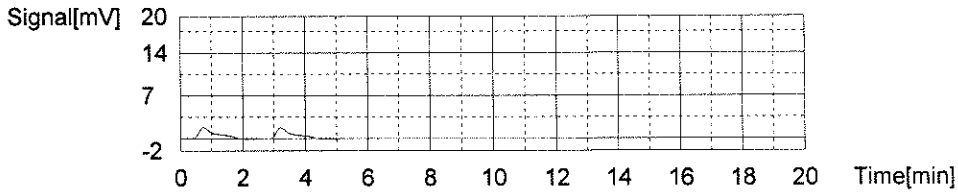
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3768 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.715	0.3840mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:15:03 PM
2	6.461	0.3695mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:17:46 PM

Mean Area 6.588
Mean Conc. 0.3768mg/L



Sample

Sample Name: SI4282-8
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

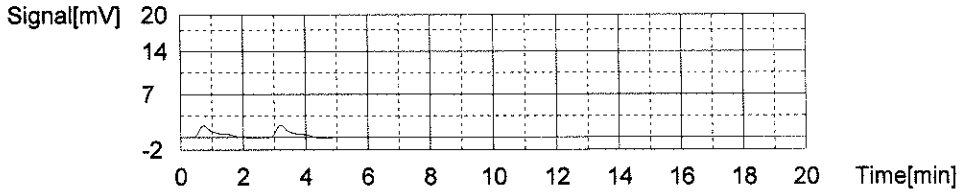
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3782 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.557	0.3750mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:27:34 PM
2	6.671	0.3815mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:30:17 PM

Mean Area 6.614
Mean Conc. 0.3782mg/L



Sample

Sample Name: SI4282-9
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

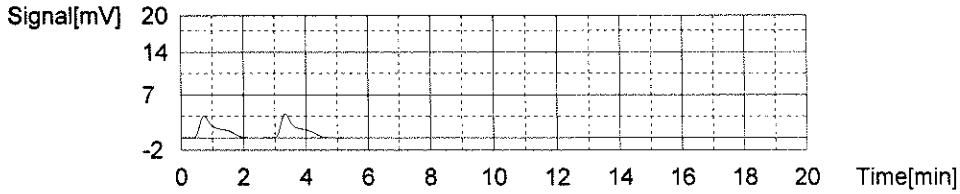
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8041 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.80	0.7892mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:39:59 PM
2	14.32	0.8189mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:42:47 PM

Mean Area 14.06
Mean Conc. 0.8041mg/L



Sample

Sample Name: SI4282-10
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

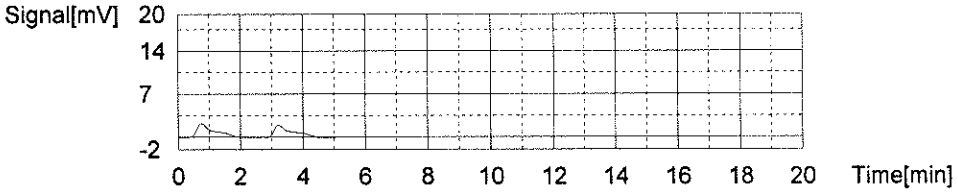
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4604 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.189	0.4683mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:52:30 PM
2	7.912	0.4525mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 7:55:15 PM

Mean Area 8.050
Mean Conc. 0.4604mg/L



Sample

Sample Name: SI4282-11
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

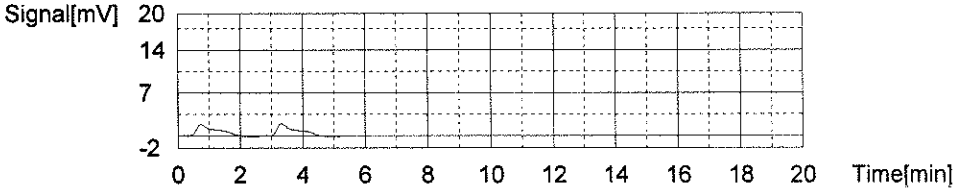
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4774 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.271	0.4730mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 8:04:56 PM
2	8.423	0.4817mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 8:07:45 PM

Mean Area 8.347
Mean Conc. 0.4774mg/L



Sample

Sample Name: SI4282-11 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

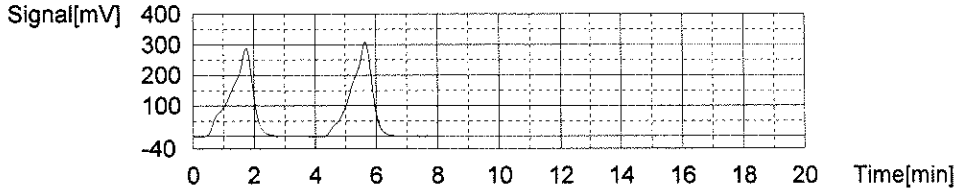
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:83.47 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1457	83.32mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 8:18:51 PM
2	1462	83.61mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 8:22:57 PM

Mean Area 1460
Mean Conc. 83.47mg/L



Sample

Sample Name: SI4260-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

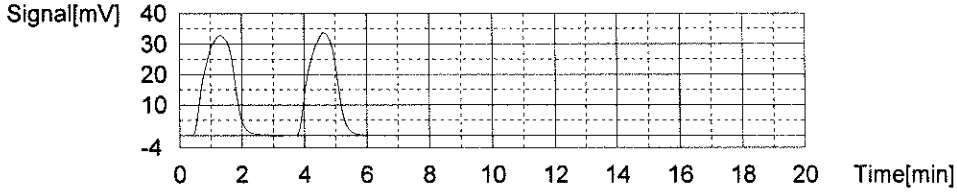
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:11.87 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	209.3	11.97mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 8:33:30 PM
2	205.7	11.76mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 8:36:49 PM

Mean Area 207.5
Mean Conc. 11.87mg/L



Sample

Sample Name: SI4260-1 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

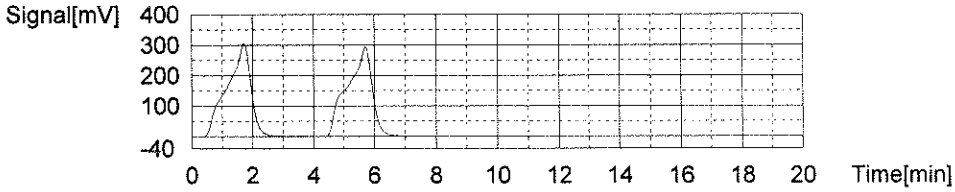
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:95.68 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1668	95.39mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 8:48:01 PM
2	1678	95.96mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 8:52:02 PM

Mean Area 1673
Mean Conc. 95.68mg/L



Sample

Sample Name: SI4261-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

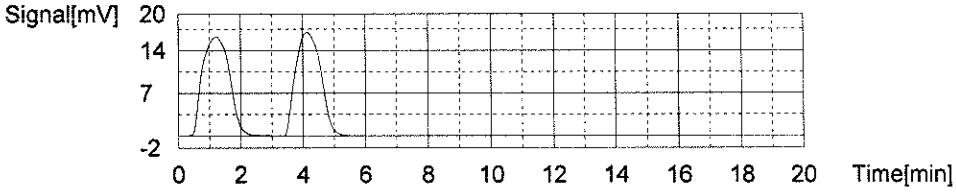
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.564 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.04	5.607mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:02:13 PM
2	96.53	5.520mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:05:22 PM

Mean Area 97.28
Mean Conc. 5.564mg/L



Sample

Sample Name: SI4309-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

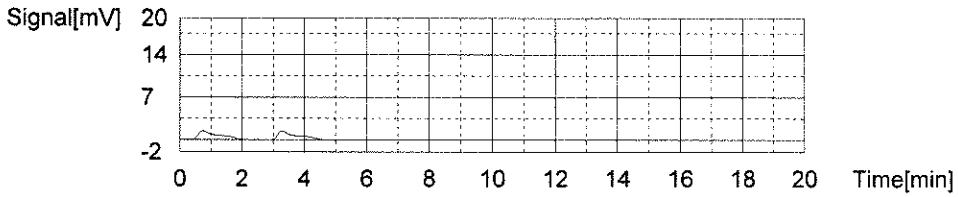
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3359 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.065	0.3468mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:15:16 PM
2	5.682	0.3249mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:18:10 PM

Mean Area 5.873
Mean Conc. 0.3359mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

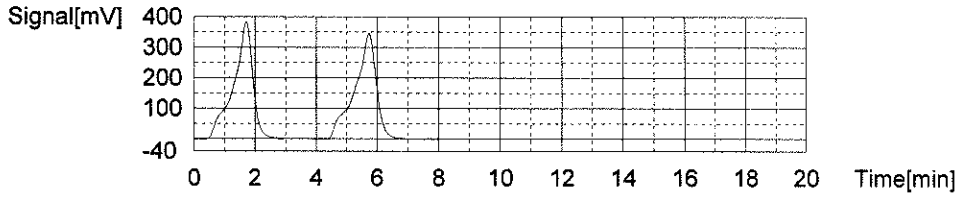
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:97.88 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1715	98.08mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:29:37 PM
2	1708	97.68mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:33:55 PM

Mean Area 1712
Mean Conc. 97.88mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

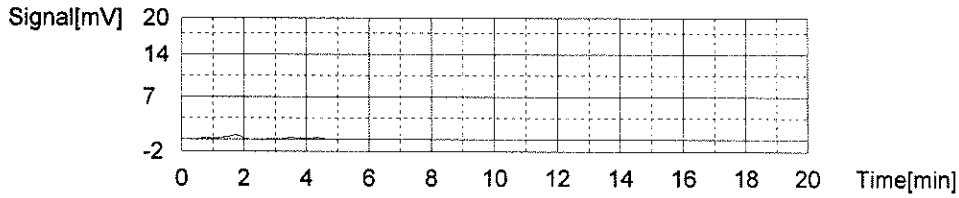
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.01868 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6534	0.03737mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:44:02 PM
2	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:46:08 PM

Mean Area 0.3267
Mean Conc. 0.01868mg/L



Sample

Sample Name: SI4309-2
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

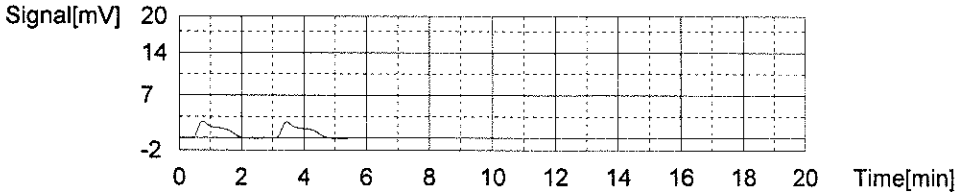
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7575 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.35	0.7635mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:56:17 PM
2	13.14	0.7515mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 9:59:11 PM

Mean Area 13.25
Mean Conc. 0.7575mg/L



Sample

Sample Name: SI4309-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

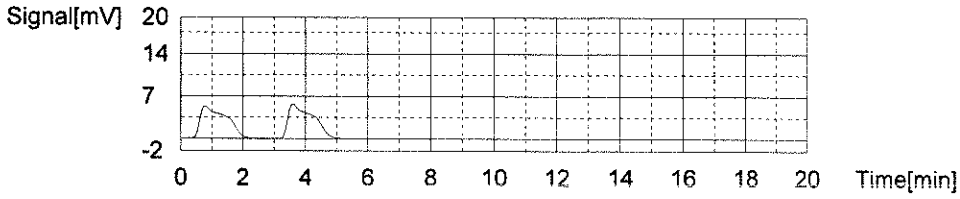
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.773 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.76	1.759mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:09:06 PM
2	31.23	1.786mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:12:12 PM

Mean Area 31.00
Mean Conc. 1.773mg/L



Sample

Sample Name: SI4309-4
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

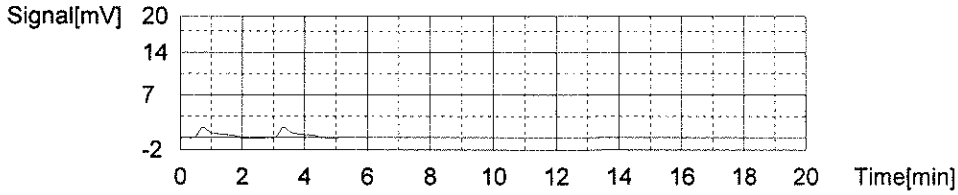
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3495 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.435	0.3680mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:22:12 PM
2	5.789	0.3311mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:24:52 PM

Mean Area 6.112
Mean Conc. 0.3495mg/L



Sample

Sample Name: SI4309-5
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

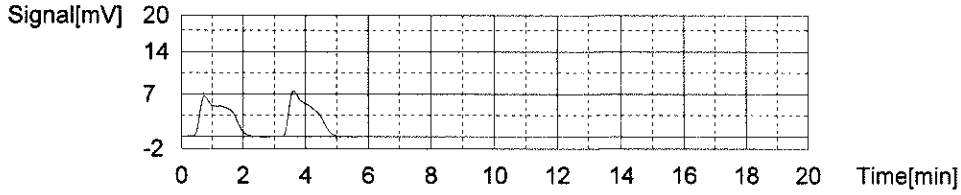
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.265 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.76	2.274mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:34:51 PM
2	39.45	2.256mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:37:50 PM

Mean Area 39.61
Mean Conc. 2.265mg/L



Sample

Sample Name: SI4309-6
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

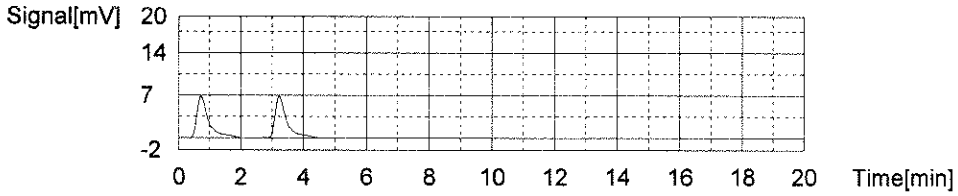
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.017 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.92	1.025mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:47:28 PM
2	17.65	1.009mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:50:06 PM

Mean Area 17.79
Mean Conc. 1.017mg/L



Sample

Sample Name: SI4309-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

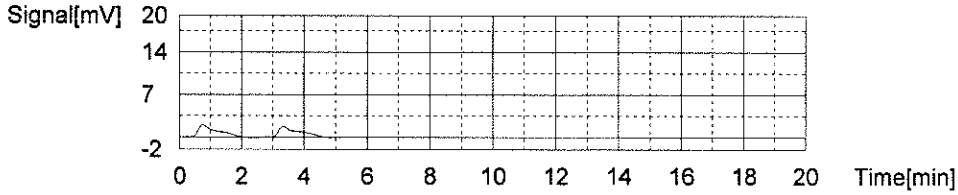
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4551 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.305	0.4750mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 10:59:55 PM
2	7.612	0.4353mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:02:42 PM

Mean Area 7.958
Mean Conc. 0.4551mg/L



Sample

Sample Name: SI4309-8
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

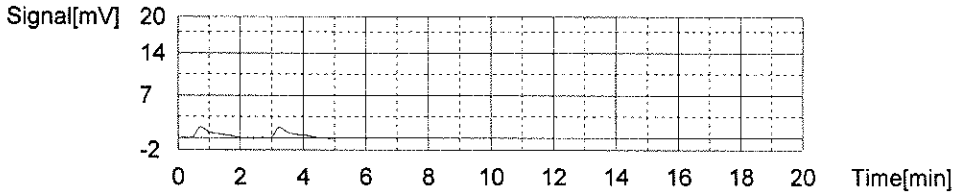
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3631 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.636	0.3795mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:12:27 PM
2	6.063	0.3467mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:15:06 PM

Mean Area 6.350
Mean Conc. 0.3631mg/L



Sample

Sample Name: SI4309-9
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

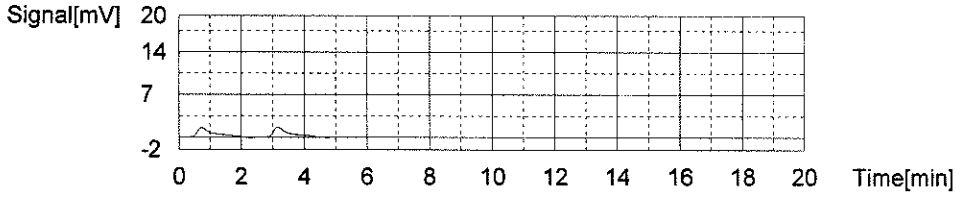
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2928 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.179	0.2962mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:24:46 PM
2	5.062	0.2895mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:27:22 PM

Mean Area 5.120
Mean Conc. 0.2928mg/L



Sample

Sample Name: SI4309-10
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

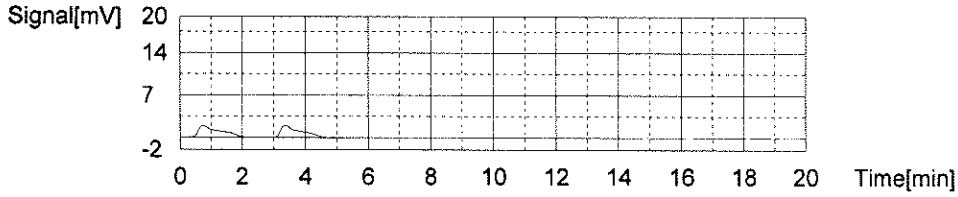
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4896 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.856	0.5065mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:37:06 PM
2	8.268	0.4728mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:39:51 PM

Mean Area 8.562
Mean Conc. 0.4896mg/L



Sample

Sample Name: SI4309-10 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

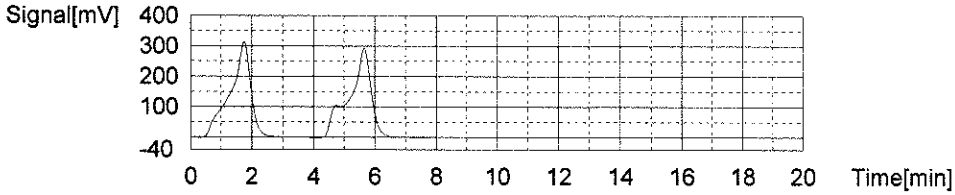
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:84.35 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1475	84.35mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:50:58 PM
2	1475	84.35mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/19/2015 11:55:01 PM

Mean Area 1475
Mean Conc. 84.35mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

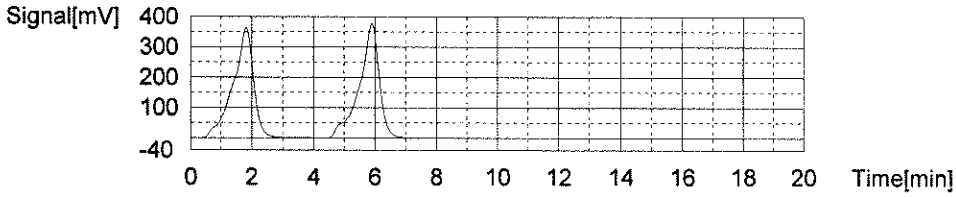
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:97.76 mg/L

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	6/20/2015 12:06:31 AM
2	1715	98.08mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 12:10:49 AM

Mean Area 1710
Mean Conc. 97.76mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

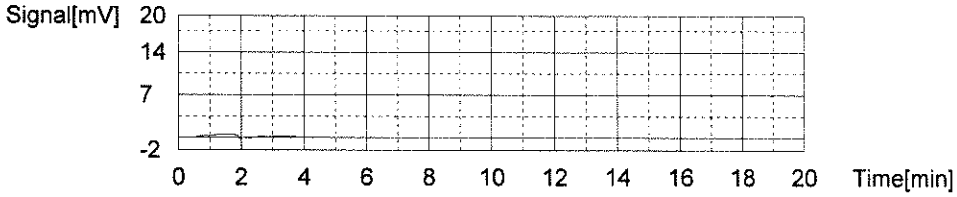
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.000 mg/L

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	6/20/2015 12:20:07 AM
2	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 12:22:27 AM

Mean Area 0.000
Mean Conc. 0.000mg/L



Sample

Sample Name: SI4319-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

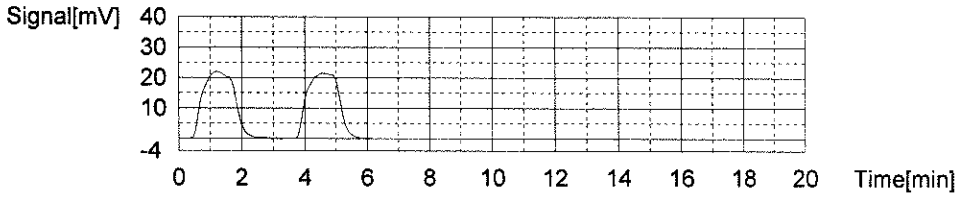
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:8.793 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	153.3	8.767mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 12:33:09 AM
2	154.2	8.818mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 12:36:32 AM

Mean Area 153.8
Mean Conc. 8.793mg/L



Sample

Sample Name: SI4319-1 DUP
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

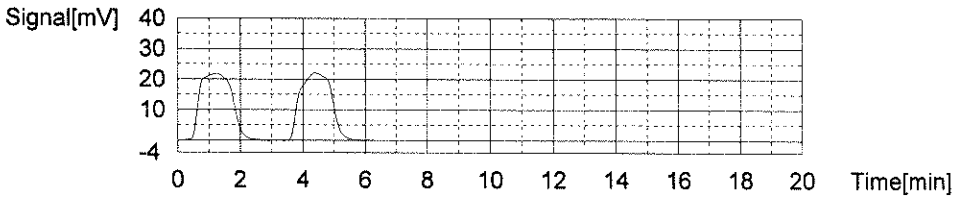
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:8.941 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	155.9	8.916mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 12:44:37 AM
2	156.8	8.967mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 12:48:00 AM

Mean Area 156.4
Mean Conc. 8.941mg/L



Sample

Sample Name: SI4338-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

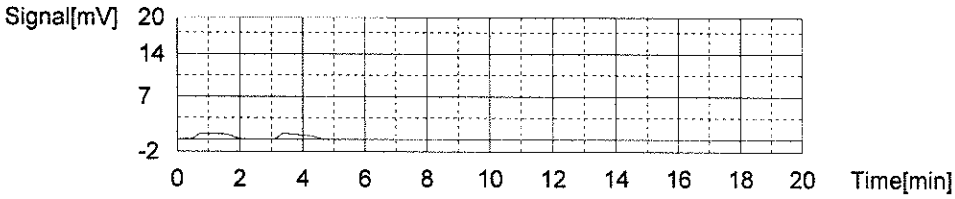
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3263 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.081	0.3478mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 12:57:59 AM
2	5.331	0.3049mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 1:00:47 AM

Mean Area 5.706
Mean Conc. 0.3263mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

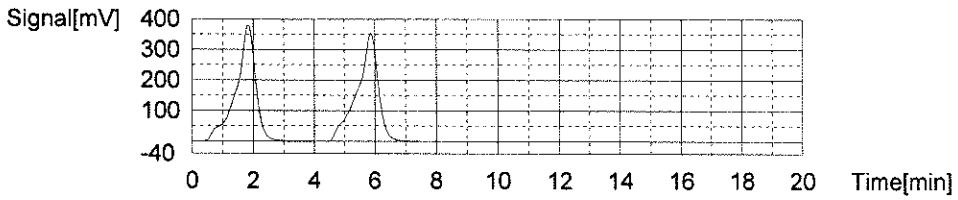
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:97.56 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1702	97.33mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 1:12:19 AM
2	1710	97.79mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 1:16:40 AM

Mean Area 1706
Mean Conc. 97.56mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: DOUBLE INJECTION.met
Chk. Result

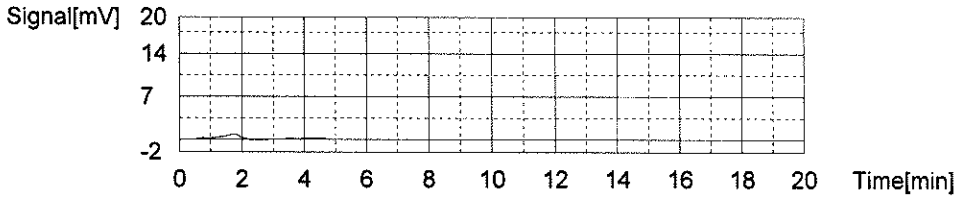
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.02079 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7269	0.04157mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 1:26:36 AM
2	0.000	0.000mg/L	150uL	1		toc aq cal 051415.2015_05_14_09_23_05.cal	6/20/2015 1:28:42 AM

Mean Area 0.3635
Mean Conc. 0.02079mg/L



Instr.Information

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

Cal. Curve

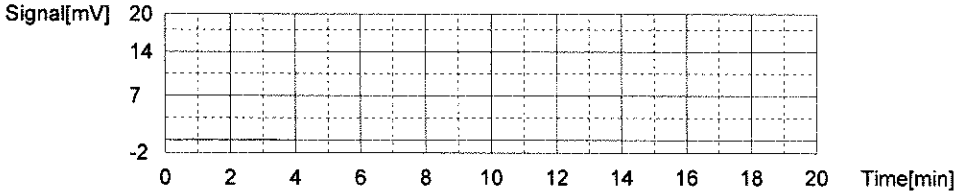
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	toc aq cal 051415.2015_05_14_09_23_05.cal

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

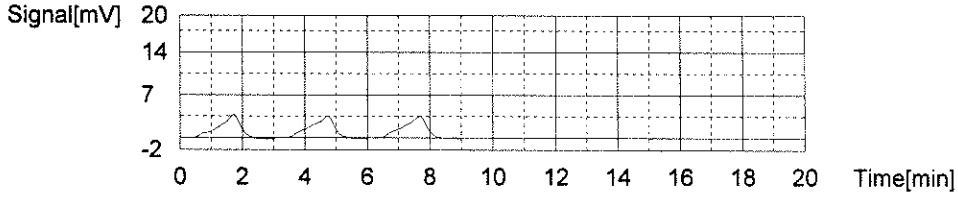
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 0.000



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

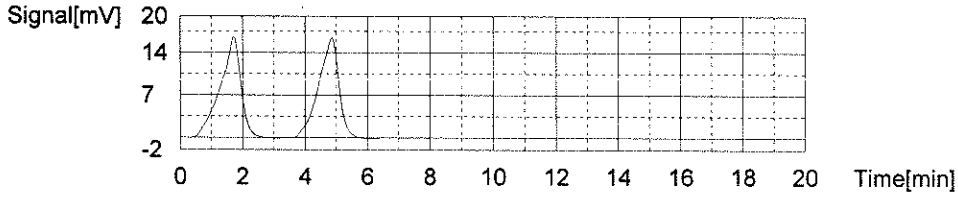
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 17.71



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

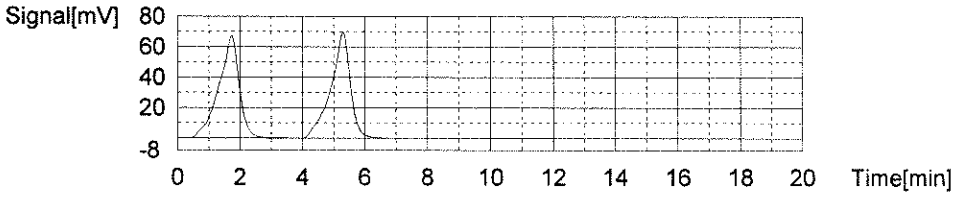
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 76.15



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

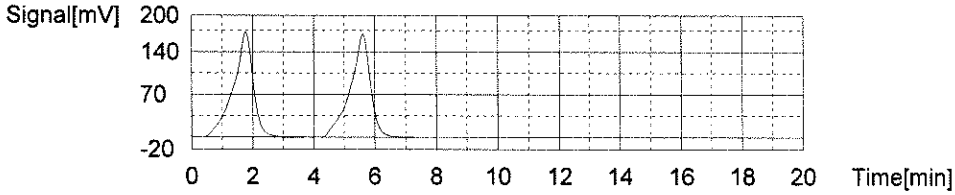
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 307.6



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

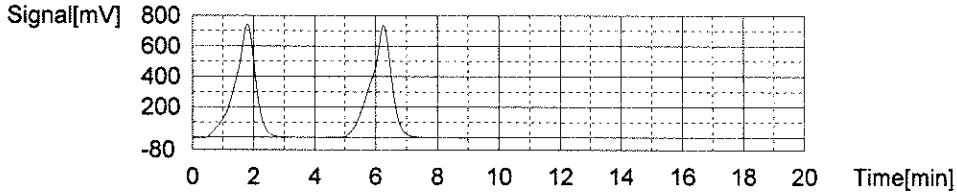
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 783.6



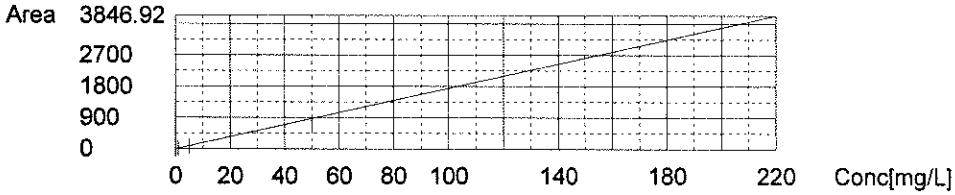
Conc: 200.0mg/L

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



TOTAL SOLIDS BATCH REPORT
Jun 25 2015, 12:43 pm
Batch: WG165416

Sample	Matrix	Type	Prep Date	Tare	Initial	Final1	Final	by	Date	Raw TS	Rep TS	Recovery	RPD
SI4408-11	SL	SAMP	24-JUN-15	1.3105 g	39.4333 g	20.277 g	20.2761 g	AZ	25-JUN-15	49.7490	50. %		
SI4408-12	SL	SAMP	24-JUN-15	1.3163 g	38.6657 g	20.3365 g	20.3362 g	AZ	25-JUN-15	50.9240	51. %		
SI4408-13	SL	SAMP	24-JUN-15	1.3199 g	31.2918 g	19.5121 g	19.5136 g	AZ	25-JUN-15	60.7020	61. %		
SI4408-14	SL	SAMP	24-JUN-15	1.3199 g	31.2918 g	19.5121 g	19.5136 g	AZ	25-JUN-15	60.7020	61. %		
SI4408-15	SL	SAMP	24-JUN-15	1.3095 g	37.4543 g	24.2725 g	24.2727 g	AZ	25-JUN-15	63.5310	64. %		
SI4408-16	SL	SAMP	24-JUN-15	1.3022 g	35.4469 g	23.8197 g	23.8203 g	AZ	25-JUN-15	65.9490	66. %		
SI4414-3	SL	SAMP	24-JUN-15	1.3107 g	17.9886 g	6.6429 g	6.6437 g	AZ	25-JUN-15	31.9760	32. %		
SI4423-1	SL	SAMP	24-JUN-15	1.3029 g	27.0628 g	2.1949 g	2.1952 g	AZ	25-JUN-15	3.4640	3.5 %		
SI4424-1	SL	SAMP	24-JUN-15	1.3045 g	20.844 g	1.6773 g	1.6768 g	AZ	25-JUN-15	1.9050	1.9 %		
SI4427-2	SL	SAMP	24-JUN-15	1.3214 g	13.4978 g	11.3771 g	11.3806 g	AZ	25-JUN-15	82.6120	83. %		
WG165416-1	SL	MBLANK	24-JUN-15	1.3064 g	1.8041 g	1.3059 g	1.3055 g	AZ	25-JUN-15	-0.1810	1 %		
WG165416-2	SL	LCS	24-JUN-15	1.3127 g	6.3117 g	5.809 g	5.8095 g	AZ	25-JUN-15	89.9540	90. %	100	
WG165416-3	SL	DUP	24-JUN-15	1.3124 g	46.6619 g	27.9305 g	27.9318 g	AZ	25-JUN-15	58.6980	59. %		16
WG165416-4	SL	DUP	24-JUN-15	1.3133 g	42.3238 g	23.4578 g	23.4583 g	AZ	25-JUN-15	53.9980	54. %		6

Comments:

SI4408-14	Use TS from SI4408-13
WG165416-1	SI4408-11
WG165416-2	SI4408-11
WG165416-3	SI4408-11
WG165416-4	SI4408-12

Entered by: _____ Date: 6-29-15 Accepted by: _____ Date: 06/29/15

TOTAL SOLIDS BATCH REPORT
Jun 25 2015, 12:44 pm
Batch: WG165418

Sample	Matrix	Type	Prep Date	Tare	Initial	Final1	Final	by	Date	Raw TS	Rep TS	Recovery	RPD
SI4338-2	SL	SAMP	24-JUN-15	1.3128 g	29.3727 g	24.717 g	24.717 g	AZ	25-JUN-15	83.4080	83. %		
SI4417-1	SL	SAMP	24-JUN-15	1.3276 g	20.1257 g	19.3922 g	19.3922 g	AZ	25-JUN-15	96.0980	96. %		
WG165418-1	SL	MBLANK	24-JUN-15	1.3064 g	1.8041 g	1.3059 g	1.3059 g	AZ	25-JUN-15	-0.1000	1 %		
WG165418-2	SL	LCS	24-JUN-15	1.3127 g	6.3117 g	5.809 g	5.809 g	AZ	25-JUN-15	89.9440	90. %	100	

Comments:

SI4338-2	BPOW5-7-061715-528-530
WG165418-1	SI4359-1
WG165418-2	SI4359-1

Entered by: _____ Date: 6-29-15 Accepted by: _____ Date: 06/29/15

R 322962
W 6165416 TS-ME

R 322963
W6165418

KATAHDIN ANALYTICAL SERVICES

W6165648

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:	[illegible]	[illegible]	ANALYST OUT: [illegible] 6-25-15	[illegible]	[illegible]	ANALYST OUT:	~~[illegible]~~ [illegible] 6-25-15	In: Y
DATE IN:	6-24-15	6-25-15	DATE OUT: 6-25 ~~6-24-15~~		6-25-15	DATE OUT:	~~6-25-15~~	Out (TS): Y
TIME IN:	16:38	10:30	TIME OUT:	8:45	11:70	TIME OUT:	~~12:60~~	Out (TVS):
TEMP IN:	104°C	105°C	TEMP OUT:	104°C	104°C	TEMP OUT:	550°C	Balance ID:
Oven ID: Oven-4			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
TVS 1	Blank	10	1.3064	1.8041	1.3059			
2	LCS	11	1.3127	6.3117	5.8090			
3	SI 4408-11	1						
4	-12	2						
5	-13/14	3						
6	-15	4						
7	-16	5						
8	SI 4214-3	6						
TVS 9	SI 4427-1	7						
TVS 10	SI 4424-1	8						
11	SI 4427-2	9						
12	SI 4408-11 dup	~~10~~ 12						
13	-12 dup	13						
14	SI 4338-2	14						
[illegible] 6-25-15	~~15 SI 4359-1~~	~~15~~	USING TS Data from SI 4359-2					
16	SI 4417-1	16						
~~17~~								
18								
19								
20				[illegible] 6-25-15				
21								
22								
23								
24								

WL-009 – Revision 4 – 05/20/2015

Reviewed By: [illegible]
QAWL772

Reviewed Date: 06/29/15