

Operation, Maintenance and Monitoring Report July 2013

**NOW Corporation
Site 3-14-008**

**Work Assignment No.
D007626-25**

Prepared for:

SUPERFUND STANDBY PROGRAM
New York State
Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by:

AECOM Technical Services Northeast, Inc.
40 British American Boulevard
Latham, New York 12110

September 2013

September 17, 2013

Mr. Carl Hoffman, P.E.
NYSDEC Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7013

**Re: NOW Corporation - Site #3-14-008
O&M Summary Report: "July" 2013**

Dear Mr. Hoffman:

This monthly summary report describes the operation, monitoring and maintenance (OM&M) of the remedial system at the NOW Corporation site in the Town of Clinton, New York, for a 28-day period **(June 26 – July 24, 2013)**.

With the exceptions noted below, if any, the P&T system was online and operational throughout the reporting period. Approximately 423,100 gallons of water were treated during the *period ending July 17*. Discharge from the treatment system averaged approximately 20,100 gallons per day (gpd), compared to 16,900 gpd in the prior reporting period.

As of July 17, a total of 93,498,000 gallons of groundwater had been recovered and treated by the system since it became operational in February 1998.

Table 1 summarizes influent and effluent analytical data for water samples collected on July 24, 2013. Although a trace amount of 1,1-DCA was detected in system effluent, **there were no exceedances of effluent limitations**. A copy of the analytical laboratory report is attached. Table 2 summarizes selected operational data recorded on July 17.

There was no system downtime in the reporting period.

AECOM made three site visits during the period to conduct the required system inspection, perform scheduled and unscheduled maintenance, and to collect water samples. The June 26 service visit was described in the previous report. Details for the current period follow:

July 17 – Cleaned air stripper for the first time since startup at this site in June 2012. Performed general housekeeping; recorded system readings. Reduced stripper-blower VFD to 55 hz.

July 24 – Performed monthly influent & effluent sampling. Trimmed weeds adjacent to treatment building. Performed general housekeeping. VFD unchanged.

Please feel free to contact me at (518) 951-2262 if you have any questions regarding this report or the operation of the treatment system.

Sincerely,
AECOM Technical Services Northeast, Inc.

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Mr. Carl Hoffman
NYSDEC

A handwritten signature in cursive script, reading "Stephen Choiniere".

Stephen R. Choiniere
Project Manager

Table 1
Summary of Influent and Effluent Data
Sampling Date: July 24, 2013
NOW Corporation Site
NYSDEC Site No. 3-14-008
Town of Clinton, New York

Analytes/ Parameters	Total Influent	Effluent	Recovery Wells			Effluent Limitations	
			TW-1	TW-2A	TW-3	(units)	
Quantity treated, per day		20,148				Monitor	gallons
pH	7.0	7.0				6.5 to 8.5	standard units
Oil and Grease	<5.0	<5.0	NA	NA	NA	15	mg/L
Total Cyanide	<10	<10	NA	NA	NA	10	ug/L
TDS	280	290	NA	NA	NA	1000	mg/L
TSS	<10	<10	NA	NA	NA	50	mg/L
Aluminum, Total	<200	<200	NA	NA	NA	Monitor	ug/L
Arsenic, Total	<20	<20	NA	NA	NA	100	ug/L
Barium, Total	77 J	79 J	NA	NA	NA	Monitor	ug/L
Chromium	18 BJ	<20	NA	NA	NA	400	ug/L
Copper	<25	<25	NA	NA	NA	24	ug/L
Iron	150 BJ	<200	NA	NA	NA	600	ug/L
Mercury	<0.20	<0.20	NA	NA	NA	0.8	ug/L
Manganese	85	51	NA	NA	NA	Monitor	ug/L
Nickel	<50	0.90 J	NA	NA	NA	200	ug/L
Zinc	16 J	<50	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	190	<0.50	2.1	260	2.0	10	ug/L
1,1,2-Trichloroethane	<5.0	<0.50	<1.0	<10	<0.50	1.2	ug/L
1,1-Dichloroethane	110	0.20 J	33	140	12	10	ug/L
1,1-Dichloroethene	14	<0.50	12.0	18	1.8	0.5	ug/L
1,2-Dichloroethane	<5.0	<0.50	<1.0	<10	<0.50	1.6	ug/L
Benzene	<5.0	<0.50	<1.0	<10	<0.50	1.4	ug/L
Chlorobenzene	<5.0	<0.50	<1.0	<10	<0.50	10	ug/L
Chloroethane	<5.0	<0.50	<1.0	<10	<0.50	10	ug/L
cis -1,2-Dichloroethene	12	<0.50	4.3	16	0.59	5	ug/L
Ethylbenzene	<5.0	<0.50	<1.0	<10	<0.50	10	ug/L
o-Xylene	<5.0	<0.50	<1.0	<10	<0.50	5	ug/L
m,p-Xylene	<5.0	<0.50	<1.0	<10	<0.50	10	ug/L
Tetrachloroethene	<5.0	<0.50	<1.0	<10	<0.50	1.4	ug/L
Toluene	<5.0	<0.50	<1.0	<10	<0.50	10	ug/L
trans -1,2-Dichloroethene	<5.0	<0.50	<1.0	<10	<0.50	5	ug/L
Trichloroethene	260	<0.50	52	340	12	6	ug/L
Vinyl Chloride	<5.0	<0.50	0.42 J	<10	<0.50	0.6	ug/L

Notes:

- 1) Detected concentrations are presented in **bold** typeface, and are expressed in the units shown in far right column.
- 2) Effluent concentration boxed in **bold** denotes exceedance of effluent limitations.
- 3) NA indicates not analyzed.
- 4) "J" indicates an estimated concentration below the reporting limit (RL).
- 5) "B" denotes metal detected in method blank at concentration below the RL, but above the method detection limit.

Table 2
Summary of July 2013 O&M Data

NOW Corporation Site
Town of Clinton, New York

Instrumentation/Readings:		7/17/13	Units
<i>TW-1</i>			
	Pumping Rate	4	GPM
	Water Level Above Transducer	82.06	feet
	Flow Meter Reading	6,697,100	gallons
	Pump Pressure	75	psi
<i>TW-2A</i>			
	Pumping Rate	~14	GPM
	Water Level Above Transducer	71.68	feet
	Flow Meter Reading	27,245,600	gallons
	Pump Pressure	10	psi
<i>TW-3</i>			
	Pumping Rate	6	GPM
	Water Level Above Transducer	71.15	feet
	Flow Meter Reading	11,195,700	gallons
	Pump Pressure	80	psi
<i>VFD Setting</i>			
	Arrival	60	Hz
	Departure	55	Hz
<i>Air Stripper</i>			
	Stripper Blower Pressure	14.5	inches H ₂ O
	Air Temperature in Stripper	54	°F
<i>Effluent Flow</i>			
	Effluent Flow this period (calculated)	423,100	gallons
	Total Effluent Flow (calculated)	93,497,500	gallons

Report Date:
12-Aug-13 17:06



- ☒ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

AECOM Technical Services, Inc.
40 British American Boulevard
Latham, NY 12110

Work Order: M1256
Project : NOW Corp. Site
Project #:

Attn: Stephen Choiniere

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
M1256-01	EFF55 072413	Aqueous	24-Jul-13 12:05	25-Jul-13 09:00
M1256-02	INF 072413	Aqueous	24-Jul-13 12:15	25-Jul-13 09:00
M1256-03	TW-1 072413	Aqueous	24-Jul-13 12:30	25-Jul-13 09:00
M1256-04	TW-2A 072413	Aqueous	24-Jul-13 12:20	25-Jul-13 09:00
M1256-05	TW-3 072413	Aqueous	24-Jul-13 12:25	25-Jul-13 09:00
M1256-06	TB 072413	Aqueous	24-Jul-13 00:00	25-Jul-13 09:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the sample(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirements have been met.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and DoD Environmental Laboratory Accreditation Program (ELAP), holds Organic and Inorganic contracts under the USEPA CLP Program and is certified under several states. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.spectrum-analytical.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Florida	E87664
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033



Certificate # L2247 Testing

Authorized by:

Yihai Ding
Laboratory Director

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M1256

SW846 8260C, VOC by GC-MS (25 mL Purge)

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code:
SW846 8260C

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW5030B

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: V5
Instrument Type: GCMS-VOA

Description: HP6890 / HP6890
Manufacturer: Hewlett-Packard
Model: 6890 / 6890

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits.

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits with the following exceptions. Please note that most test procedures allow for several compounds outside of the QC limits for the LCS, although this may indicate a bias for this specific compound.

LCS-73052 in batch 73052, recovery is above criteria for Tetrachloroethene at 121% with criteria of (74-115).

LCSD-73052 in batch 73052, recovery is above criteria for Tetrachloroethene at 130% with criteria of (74-115).

Please note Tetrachloroethene was not detected in any associated samples.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

The following samples were analyzed at dilution:

INF 072413 (M1256-02A) : Dilution Factor: 10

TW-1 072413 (M1256-03A) : Dilution Factor: 2

TW-2A 072413 (M1256-04A) : Dilution Factor: 20

G. Samples:

No other unusual occurrences were noted during sample analysis.

H. Manual Integration

No manual integrations were performed on any sample or standard.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

A handwritten signature in black ink, appearing to be 'J. H. P.', is written above the signature line.

Signed: _____

Date: _____ 8/12/2013 _____

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M1256

SW846 6010C, SW846 7470A

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code:
SW846 6010C, SW846 7470A

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW3005A

Aqueous Samples were prepared following procedures in laboratory test code: SW7470A

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: FIMS2
Instrument Type: CVAA
Description: FIMS
Manufacturer: Perkin-Elmer
Model: FIMS100

Instrument Code: OPTIMA3
Instrument Type: ICP
Description: Optima ICP-OES
Manufacturer: Perkin-Elmer
Model: 4300 DV

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for laboratory control samples were within the QC limits.

2. Matrix spike (MS):

A matrix spike was not performed on any sample in this SDG.

D. Post Digestion Spike (PDS):

A post-digestion spike was not performed on any sample in this SDG.

E. Duplicate sample:

A duplicate analysis was not performed on any sample in this SDG.

F. Serial Dilution (SD):

A serial dilution was not performed on any sample in this SDG.

G. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the end.

Signed: _____

Date: 08/08/2013

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M1256

SM 2540C, SM 2540D, SW846 9012B

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SM 2540C, SM 2540D, SW846 9012B

IV. PREPARATION

Samples were prepared following procedures in laboratory test code: SM 2540C, SM 2540D, SW846 9012B

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: LACHAT1

Instrument Type: WC

Description: Flow Injection Analyzer
Manufacturer: Zellweger Analytics
Model: Quik-Chem 8000

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

D. Duplicate sample:

Duplicate analyses were performed on sample: INF 072413
(M1256-02DDUP).

Relative percent differences were within the QC limits.

E. Dilutions:

No sample required dilution in this SDG.

F. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

A handwritten signature in black ink, consisting of a series of loops and a final upward stroke.

Signed: _____

Date: 08/08/2013

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M1256

EPA 1664A, Oil & Grease, HEM

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code:
EPA 1664A

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW3510C

V. INSTRUMENTATION

The following instrumentation was used to perform Oil and Grease analysis.

Instrument Type: Analytical Balance
Manufacturer: Denver Instrument Company
Model: A-250

VI. ANALYSIS

A. Calibration:

Analytical balance was calibrated based on SOP/Method criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Matrix spikes were performed on sample: INF 072413
(M1256-02BMS).

Percent recoveries were within the QC limits.

D. Duplicate sample:

No client-requested duplicate analyses were included in this SDG.

E. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

A handwritten signature in black ink, appearing to be 'JFW' or similar, written in a cursive style.

Signed: _____

Date: _____ 8/12/2013 _____

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/12/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF55 072413

Lab ID: M1256-01

Project: NOW Corp. Site

Collection Date: 07/24/13 12:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Chloroethane	ND		0.50	ug/L		1 08/06/2013 14:34	73052
1,1-Dichloroethene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
trans-1,2-Dichloroethene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Methyl tert-butyl ether	ND		0.50	ug/L		1 08/06/2013 14:34	73052
1,1-Dichloroethane	0.20	J	0.50	ug/L		1 08/06/2013 14:34	73052
cis-1,2-Dichloroethene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
1,1,1-Trichloroethane	ND		0.50	ug/L		1 08/06/2013 14:34	73052
1,2-Dichloroethane	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Benzene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Trichloroethene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Toluene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
1,1,2-Trichloroethane	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Tetrachloroethene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Chlorobenzene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Ethylbenzene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
m,p-Xylene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
o-Xylene	ND		0.50	ug/L		1 08/06/2013 14:34	73052
Surrogate: Dibromofluoromethane	95.8		88-124	%REC		1 08/06/2013 14:34	73052
Surrogate: 1,2-Dichloroethane-d4	99.1		79-115	%REC		1 08/06/2013 14:34	73052
Surrogate: Toluene-d8	101		80-114	%REC		1 08/06/2013 14:34	73052
Surrogate: Bromofluorobenzene	96.2		60-123	%REC		1 08/06/2013 14:34	73052

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/12/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: INF 072413

Lab ID: M1256-02

Project: NOW Corp. Site

Collection Date: 07/24/13 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		5.0	ug/L		10 08/06/2013 15:02	73052
Chloroethane	ND		5.0	ug/L		10 08/06/2013 15:02	73052
1,1-Dichloroethene	14		5.0	ug/L		10 08/06/2013 15:02	73052
trans-1,2-Dichloroethene	ND		5.0	ug/L		10 08/06/2013 15:02	73052
Methyl tert-butyl ether	ND		5.0	ug/L		10 08/06/2013 15:02	73052
1,1-Dichloroethane	110		5.0	ug/L		10 08/06/2013 15:02	73052
cis-1,2-Dichloroethene	12		5.0	ug/L		10 08/06/2013 15:02	73052
1,1,1-Trichloroethane	190		5.0	ug/L		10 08/06/2013 15:02	73052
1,2-Dichloroethane	ND		5.0	ug/L		10 08/06/2013 15:02	73052
Benzene	ND		5.0	ug/L		10 08/06/2013 15:02	73052
Trichloroethene	260		5.0	ug/L		10 08/06/2013 15:02	73052
Toluene	ND		5.0	ug/L		10 08/06/2013 15:02	73052
1,1,2-Trichloroethane	ND		5.0	ug/L		10 08/06/2013 15:02	73052
Tetrachloroethene	ND		5.0	ug/L		10 08/06/2013 15:02	73052
Chlorobenzene	ND		5.0	ug/L		10 08/06/2013 15:02	73052
Ethylbenzene	ND		5.0	ug/L		10 08/06/2013 15:02	73052
m,p-Xylene	ND		5.0	ug/L		10 08/06/2013 15:02	73052
o-Xylene	ND		5.0	ug/L		10 08/06/2013 15:02	73052
Surrogate: Dibromofluoromethane	95.8		88-124	%REC		10 08/06/2013 15:02	73052
Surrogate: 1,2-Dichloroethane-d4	96.2		79-115	%REC		10 08/06/2013 15:02	73052
Surrogate: Toluene-d8	101		80-114	%REC		10 08/06/2013 15:02	73052
Surrogate: Bromofluorobenzene	95.2		60-123	%REC		10 08/06/2013 15:02	73052

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/12/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-1 072413

Lab ID: M1256-03

Project: NOW Corp. Site

Collection Date: 07/24/13 12:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	0.42	J	1.0	ug/L		2 08/06/2013 15:29	73052
Chloroethane	ND		1.0	ug/L		2 08/06/2013 15:29	73052
1,1-Dichloroethene	12		1.0	ug/L		2 08/06/2013 15:29	73052
trans-1,2-Dichloroethene	ND		1.0	ug/L		2 08/06/2013 15:29	73052
Methyl tert-butyl ether	ND		1.0	ug/L		2 08/06/2013 15:29	73052
1,1-Dichloroethane	33		1.0	ug/L		2 08/06/2013 15:29	73052
cis-1,2-Dichloroethene	4.3		1.0	ug/L		2 08/06/2013 15:29	73052
1,1,1-Trichloroethane	2.1		1.0	ug/L		2 08/06/2013 15:29	73052
1,2-Dichloroethane	ND		1.0	ug/L		2 08/06/2013 15:29	73052
Benzene	ND		1.0	ug/L		2 08/06/2013 15:29	73052
Trichloroethene	52		1.0	ug/L		2 08/06/2013 15:29	73052
Toluene	ND		1.0	ug/L		2 08/06/2013 15:29	73052
1,1,2-Trichloroethane	ND		1.0	ug/L		2 08/06/2013 15:29	73052
Tetrachloroethene	ND		1.0	ug/L		2 08/06/2013 15:29	73052
Chlorobenzene	ND		1.0	ug/L		2 08/06/2013 15:29	73052
Ethylbenzene	ND		1.0	ug/L		2 08/06/2013 15:29	73052
m,p-Xylene	ND		1.0	ug/L		2 08/06/2013 15:29	73052
o-Xylene	ND		1.0	ug/L		2 08/06/2013 15:29	73052
Surrogate: Dibromofluoromethane	102		88-124	%REC		2 08/06/2013 15:29	73052
Surrogate: 1,2-Dichloroethane-d4	103		79-115	%REC		2 08/06/2013 15:29	73052
Surrogate: Toluene-d8	97.9		80-114	%REC		2 08/06/2013 15:29	73052
Surrogate: Bromofluorobenzene	96.8		60-123	%REC		2 08/06/2013 15:29	73052

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/12/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-2A 072413

Lab ID: M1256-04

Project: NOW Corp. Site

Collection Date: 07/24/13 12:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		10	ug/L		20 08/06/2013 15:57	73052
Chloroethane	ND		10	ug/L		20 08/06/2013 15:57	73052
1,1-Dichloroethene	18		10	ug/L		20 08/06/2013 15:57	73052
trans-1,2-Dichloroethene	ND		10	ug/L		20 08/06/2013 15:57	73052
Methyl tert-butyl ether	ND		10	ug/L		20 08/06/2013 15:57	73052
1,1-Dichloroethane	140		10	ug/L		20 08/06/2013 15:57	73052
cis-1,2-Dichloroethene	16		10	ug/L		20 08/06/2013 15:57	73052
1,1,1-Trichloroethane	260		10	ug/L		20 08/06/2013 15:57	73052
1,2-Dichloroethane	ND		10	ug/L		20 08/06/2013 15:57	73052
Benzene	ND		10	ug/L		20 08/06/2013 15:57	73052
Trichloroethene	340		10	ug/L		20 08/06/2013 15:57	73052
Toluene	ND		10	ug/L		20 08/06/2013 15:57	73052
1,1,2-Trichloroethane	ND		10	ug/L		20 08/06/2013 15:57	73052
Tetrachloroethene	ND		10	ug/L		20 08/06/2013 15:57	73052
Chlorobenzene	ND		10	ug/L		20 08/06/2013 15:57	73052
Ethylbenzene	ND		10	ug/L		20 08/06/2013 15:57	73052
m,p-Xylene	ND		10	ug/L		20 08/06/2013 15:57	73052
o-Xylene	ND		10	ug/L		20 08/06/2013 15:57	73052
Surrogate: Dibromofluoromethane	100		88-124	%REC		20 08/06/2013 15:57	73052
Surrogate: 1,2-Dichloroethane-d4	105		79-115	%REC		20 08/06/2013 15:57	73052
Surrogate: Toluene-d8	99.6		80-114	%REC		20 08/06/2013 15:57	73052
Surrogate: Bromofluorobenzene	94.8		60-123	%REC		20 08/06/2013 15:57	73052

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/12/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-3 072413

Lab ID: M1256-05

Project: NOW Corp. Site

Collection Date: 07/24/13 12:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		0.50	ug/L		1 08/06/2013 16:24	73052
Chloroethane	ND		0.50	ug/L		1 08/06/2013 16:24	73052
1,1-Dichloroethene	1.8		0.50	ug/L		1 08/06/2013 16:24	73052
trans-1,2-Dichloroethene	ND		0.50	ug/L		1 08/06/2013 16:24	73052
Methyl tert-butyl ether	ND		0.50	ug/L		1 08/06/2013 16:24	73052
1,1-Dichloroethane	12		0.50	ug/L		1 08/06/2013 16:24	73052
cis-1,2-Dichloroethene	0.59		0.50	ug/L		1 08/06/2013 16:24	73052
1,1,1-Trichloroethane	2.0		0.50	ug/L		1 08/06/2013 16:24	73052
1,2-Dichloroethane	ND		0.50	ug/L		1 08/06/2013 16:24	73052
Benzene	ND		0.50	ug/L		1 08/06/2013 16:24	73052
Trichloroethene	12		0.50	ug/L		1 08/06/2013 16:24	73052
Toluene	ND		0.50	ug/L		1 08/06/2013 16:24	73052
1,1,2-Trichloroethane	ND		0.50	ug/L		1 08/06/2013 16:24	73052
Tetrachloroethene	ND		0.50	ug/L		1 08/06/2013 16:24	73052
Chlorobenzene	ND		0.50	ug/L		1 08/06/2013 16:24	73052
Ethylbenzene	ND		0.50	ug/L		1 08/06/2013 16:24	73052
m,p-Xylene	ND		0.50	ug/L		1 08/06/2013 16:24	73052
o-Xylene	ND		0.50	ug/L		1 08/06/2013 16:24	73052
Surrogate: Dibromofluoromethane	100		88-124	%REC		1 08/06/2013 16:24	73052
Surrogate: 1,2-Dichloroethane-d4	96.0		79-115	%REC		1 08/06/2013 16:24	73052
Surrogate: Toluene-d8	97.6		80-114	%REC		1 08/06/2013 16:24	73052
Surrogate: Bromofluorobenzene	94.3		60-123	%REC		1 08/06/2013 16:24	73052

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/12/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: TB 072413

Lab ID: M1256-06

Project: NOW Corp. Site

Collection Date: 07/24/13 0:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Chloroethane	ND		0.50	ug/L		1 08/06/2013 16:51	73052
1,1-Dichloroethene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
trans-1,2-Dichloroethene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Methyl tert-butyl ether	ND		0.50	ug/L		1 08/06/2013 16:51	73052
1,1-Dichloroethane	ND		0.50	ug/L		1 08/06/2013 16:51	73052
cis-1,2-Dichloroethene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
1,1,1-Trichloroethane	ND		0.50	ug/L		1 08/06/2013 16:51	73052
1,2-Dichloroethane	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Benzene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Trichloroethene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Toluene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
1,1,2-Trichloroethane	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Tetrachloroethene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Chlorobenzene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Ethylbenzene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
m,p-Xylene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
o-Xylene	ND		0.50	ug/L		1 08/06/2013 16:51	73052
Surrogate: Dibromofluoromethane	102		88-124	%REC		1 08/06/2013 16:51	73052
Surrogate: 1,2-Dichloroethane-d4	105		79-115	%REC		1 08/06/2013 16:51	73052
Surrogate: Toluene-d8	98.4		80-114	%REC		1 08/06/2013 16:51	73052
Surrogate: Bromofluorobenzene	94.6		60-123	%REC		1 08/06/2013 16:51	73052

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.

Work Order: M1256

SW8260_25_W

Project: NOW Corp. Site

SW846 8260C -- VOC by GC-MS (25 mL Purge)

Sample ID: MB-73052	SampType: MBLK	TestCode: SW8260_25_W	Prep Date: 08/06/13 8:29	Run ID: V5_130806A								
Client ID: MB-73052	Batch ID: 73052	Units: ug/L	Analysis Date: 08/06/13 14:07	SeqNo: 1948849								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.15	0.50									
Chloroethane	ND	0.24	0.50									
1,1-Dichloroethene	ND	0.19	0.50									
trans-1,2-Dichloroethene	ND	0.14	0.50									
Methyl tert-butyl ether	ND	0.13	0.50									
1,1-Dichloroethane	ND	0.18	0.50									
cis-1,2-Dichloroethene	ND	0.19	0.50									
1,1,1-Trichloroethane	ND	0.11	0.50									
1,2-Dichloroethane	ND	0.16	0.50									
Benzene	ND	0.12	0.50									
Trichloroethene	ND	0.13	0.50									
Toluene	ND	0.14	0.50									
1,1,2-Trichloroethane	ND	0.20	0.50									
Tetrachloroethene	ND	0.17	0.50									
Chlorobenzene	ND	0.13	0.50									
Ethylbenzene	ND	0.13	0.50									
m,p-Xylene	ND	0.22	0.50									
o-Xylene	ND	0.17	0.50									
Surrogate:	9.583		0.50	10.00	0	95.8	88	124		0		
Dibromofluoromethane												
Surrogate: 1,2-	9.827		0.50	10.00	0	98.3	79	115		0		
Dichloroethane-d4												
Surrogate: Toluene-d8	10.27		0.50	10.00	0	103	80	114		0		
Surrogate:	9.637		0.50	10.00	0	96.4	60	123		0		
Bromofluorobenzene												

CLIENT: AECOM Technical Services, Inc.
Work Order: M1256
Subject: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT
SW8260_25_W
SW846 8260C -- VOC by GC-MS (25 mL Purge)

Sample ID: LCS-73052	SampType: LCS	TestCode: SW8260_25_W	Prep Date: 08/06/13 8:29	Run ID: V5_130806A								
Client ID: LCS-73052	Batch ID: 73052	Units: ug/L	Analysis Date: 08/06/13 12:45	SeqNo: 1948847								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	9.903	0.15	0.50	10.00	0	99.0	77	120	0			
Chloroethane	9.980	0.24	0.50	10.00	0	99.8	75	135	0			
1,1-Dichloroethene	9.768	0.19	0.50	10.00	0	97.7	81	125	0			
trans-1,2-Dichloroethene	9.786	0.14	0.50	10.00	0	97.9	60	137	0			
Methyl tert-butyl ether	9.719	0.13	0.50	10.00	0	97.2	61	134	0			
1,1-Dichloroethane	9.605	0.18	0.50	10.00	0	96.0	82	120	0			
cis-1,2-Dichloroethene	10.05	0.19	0.50	10.00	0	101	84	116	0			
1,1,1-Trichloroethane	9.239	0.11	0.50	10.00	0	92.4	80	124	0			
1,2-Dichloroethane	9.102	0.16	0.50	10.00	0	91.0	86	117	0			
Benzene	9.886	0.12	0.50	10.00	0	98.9	81	121	0			
Trichloroethene	9.674	0.13	0.50	10.00	0	96.7	74	123	0			
Toluene	9.773	0.14	0.50	10.00	0	97.7	88	117	0			
1,1,2-Trichloroethane	10.33	0.20	0.50	10.00	0	103	83	121	0			
Tetrachloroethene	12.09	0.17	0.50	10.00	0	121	74	115	0			S
Chlorobenzene	9.959	0.13	0.50	10.00	0	99.6	83	112	0			
Ethylbenzene	10.02	0.13	0.50	10.00	0	100	87	110	0			
m,p-Xylene	20.33	0.22	0.50	20.00	0	102	87	114	0			
o-Xylene	10.24	0.17	0.50	10.00	0	102	84	114	0			
Surrogate:	9.454		0.50	10.00	0	94.5	88	124	0			
Dibromofluoromethane												
Surrogate: 1,2-	9.578		0.50	10.00	0	95.8	79	115	0			
Dichloroethane-d4												
Surrogate: Toluene-d8	9.951		0.50	10.00	0	99.5	80	114	0			
Surrogate:	9.814		0.50	10.00	0	98.1	60	123	0			
Bromofluorobenzene												

ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.

Work Order: M1256

SW8260_25_W

Project: NOW Corp. Site

SW846 8260C -- VOC by GC-MS (25 mL Purge)

Sample ID: LCSD-73052		SampType: LCSD		TestCode: SW8260_25_W		Prep Date: 08/06/13 8:29		Run ID: V5_130806A				
Client ID: LCSD-73052		Batch ID: 73052		Units: ug/L		Analysis Date: 08/06/13 13:12		SeqNo: 1948848				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	10.15	0.15	0.50	10.00	0	102	77	120	9.903	2.48	40	
Chloroethane	10.02	0.24	0.50	10.00	0	100	75	135	9.980	0.369	40	
1,1-Dichloroethene	10.22	0.19	0.50	10.00	0	102	81	125	9.768	4.51	40	
trans-1,2-Dichloroethene	9.829	0.14	0.50	10.00	0	98.3	60	137	9.786	0.437	40	
Methyl tert-butyl ether	9.732	0.13	0.50	10.00	0	97.3	61	134	9.719	0.132	40	
1,1-Dichloroethane	9.942	0.18	0.50	10.00	0	99.4	82	120	9.605	3.45	40	
cis-1,2-Dichloroethene	10.26	0.19	0.50	10.00	0	103	84	116	10.05	2.03	40	
1,1,1-Trichloroethane	9.721	0.11	0.50	10.00	0	97.2	80	124	9.239	5.09	40	
1,2-Dichloroethane	8.998	0.16	0.50	10.00	0	90.0	86	117	9.102	1.15	40	
Benzene	9.917	0.12	0.50	10.00	0	99.2	81	121	9.886	0.31	40	
Trichloroethene	9.979	0.13	0.50	10.00	0	99.8	74	123	9.674	3.1	40	
Toluene	9.912	0.14	0.50	10.00	0	99.1	88	117	9.773	1.41	40	
1,1,2-Trichloroethane	10.44	0.20	0.50	10.00	0	104	83	121	10.33	1.08	40	
Tetrachloroethene	12.95	0.17	0.50	10.00	0	130	74	115	12.09	6.84	40	S
Chlorobenzene	9.764	0.13	0.50	10.00	0	97.6	83	112	9.959	1.99	40	
Ethylbenzene	9.846	0.13	0.50	10.00	0	98.5	87	110	10.02	1.8	40	
m,p-Xylene	19.70	0.22	0.50	20.00	0	98.5	87	114	20.33	3.14	40	
o-Xylene	10.03	0.17	0.50	10.00	0	100	84	114	10.24	2.06	40	
Surrogate:	9.850		0.50	10.00	0	98.5	88	124	0			
Dibromofluoromethane												
Surrogate: 1,2-Dichloroethane-d4	10.28		0.50	10.00	0	103	79	115	0			
Surrogate: Toluene-d8	10.17		0.50	10.00	0	102	80	114	0			
Surrogate: Bromofluorobenzene	9.742		0.50	10.00	0	97.4	60	123	0			

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/08/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF55 072413

Lab ID: M1256-01

Project: NOW Corp. Site

Collection Date: 07/24/13 12:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							SW6010_W
Aluminum	ND		200	ug/L		1 08/05/2013 8:54	73018
Arsenic	ND		20	ug/L		1 08/05/2013 8:54	73018
Barium	79	J	200	ug/L		1 08/05/2013 8:54	73018
Chromium	ND		20	ug/L		1 08/05/2013 8:54	73018
Copper	ND		25	ug/L		1 08/05/2013 8:54	73018
Iron	ND		200	ug/L		1 08/05/2013 8:54	73018
Manganese	51		50	ug/L		1 08/05/2013 8:54	73018
Nickel	0.90	J	50	ug/L		1 08/05/2013 8:54	73018
Zinc	ND		50	ug/L		1 08/05/2013 8:54	73018
SW846 7470A -- Mercury by FIA							SW7470
Mercury	ND		0.20	µg/L		1 08/02/2013 9:31	73001

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/08/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: INF 072413

Lab ID: M1256-02

Project: NOW Corp. Site

Collection Date: 07/24/13 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							SW6010_W
Aluminum	ND		200	ug/L		1 08/05/2013 8:58	73018
Arsenic	ND		20	ug/L		1 08/05/2013 8:58	73018
Barium	77	J	200	ug/L		1 08/05/2013 8:58	73018
Chromium	18	BJ	20	ug/L		1 08/05/2013 8:58	73018
Copper	ND		25	ug/L		1 08/05/2013 8:58	73018
Iron	150	BJ	200	ug/L		1 08/05/2013 8:58	73018
Manganese	85		50	ug/L		1 08/05/2013 8:58	73018
Nickel	ND		50	ug/L		1 08/05/2013 8:58	73018
Zinc	16	J	50	ug/L		1 08/05/2013 8:58	73018
SW846 7470A -- Mercury by FIA							SW7470
Mercury	ND		0.20	µg/L		1 08/02/2013 9:33	73001

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

M

Client: AECOM Technical Services, Inc.

ANALYTICAL QC SUMMARY REPORT

Work Order: M1256

SW6010_W

Project: NOW Corp. Site

SW846 6010C -- Metals by ICP

Sample ID: MB-73018	SampType: MBLK	TestCode: SW6010_W	Prep Date: 08/02/13 9:00	Run ID: OPTIMA3_130805A								
Client ID: MB-73018	Batch ID: 73018	Units: ug/L	Analysis Date: 08/05/13 8:43	SeqNo: 1947057								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	66	200									
Arsenic	ND	4.3	20									
Barium	ND	1.1	200									
Chromium	3.731	0.64	20									J
Copper	ND	3.6	30									
Iron	36.93	31	200									J
Manganese	ND	10	50									
Nickel	ND	0.85	50									
Zinc	ND	4.9	50									

Sample ID: LCS-73018	SampType: LCS	TestCode: SW6010_W			Prep Date: 08/02/13 9:00	Run ID: OPTIMA3_130805A						
Client ID: LCS-73018	Batch ID: 73018	Units: ug/L			Analysis Date: 08/05/13 8:47	SeqNo: 1947059						
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9562	66	200	9100	0	105	80	120	0			
Arsenic	471.3	4.3	20	455.0	0	104	80	120	0			
Barium	9855	1.1	200	9100	0	108	80	120	0			
Chromium	950.7	0.64	20	910.0	0	104	80	120	0			B
Copper	1198	3.6	30	1130	0	106	80	120	0			
Iron	4810	31	200	4550	0	106	80	120	0			B
Manganese	2431	10	50	2270	0	107	80	120	0			
Nickel	2379	0.85	50	2270	0	105	80	120	0			
Zinc	2371	4.9	50	2270	0	104	80	120	0			

CLIENT: AECOM Technical Services, Inc.

ANALYTICAL QC SUMMARY REPORT

Work Order: M1256

SW7470

Project: NOW Corp. Site

SW846 7470A -- Mercury by FIA

Sample ID: MB-73001	SampType: MBLK	TestCode: SW7470	Prep Date: 08/01/13 14:00	Run ID: FIMS2_130802A							
Client ID: MB-73001	Batch ID: 73001	Units: µg/L	Analysis Date: 08/02/13 9:26	SeqNo: 1946090							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.028	0.20								

Sample ID: LCS-73001	SampType: LCS	TestCode: SW7470	Prep Date: 08/01/13 14:00	Run ID: FIMS2_130802A							
Client ID: LCS-73001	Batch ID: 73001	Units: µg/L	Analysis Date: 08/02/13 9:28	SeqNo: 1946091							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.031	0.028	0.20	4.550	0	88.6	80	120	0		

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/08/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF55 072413

Lab ID: M1256-01

Project: NOW Corp. Site

Collection Date: 07/24/13 12:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2540C -- TOTAL DISSOLVED SOLIDS							SM2540_TDS
Total Dissolved Solids	290		10	mg/L	1	07/25/2013 22:00	72884
SM 2540D -- TOTAL SUSPENDED SOLIDS							SM2540_TSS
Total Suspended Solids	ND		10	mg/L	1	07/26/2013 1:00	72885
SW846 9012B -- Total Cyanide							SW9012_W
Cyanide	ND		10	ug/L	1	08/02/2013 10:57	73008

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

08/08/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: INF 072413

Lab ID: M1256-02

Project: NOW Corp. Site

Collection Date: 07/24/13 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2540C -- TOTAL DISSOLVED SOLIDS							SM2540_TDS
Total Dissolved Solids	280		10	mg/L	1	07/26/2013 1:30	72884
SM 2540D -- TOTAL SUSPENDED SOLIDS							SM2540_TSS
Total Suspended Solids	ND		10	mg/L	1	07/26/2013 3:30	72885
SW846 9012B -- Total Cyanide							SW9012_W
Cyanide	ND		10	ug/L	1	08/02/2013 10:59	73008

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.
Work Order: M1256
Project: NOW Corp. Site

SM2540_TDS
SM 2540C -- TOTAL DISSOLVED SOLIDS

Sample ID: MB-72884	SampType: MBLK	TestCode: SM2540_TDS	Prep Date: 07/25/13 15:00	Run ID: MANUAL_130725D			
Client ID: MB-72884	Batch ID: 72884	Units: mg/L	Analysis Date: 07/25/13 15:00	SeqNo: 1945877			
Analyte	Result	MDL	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual

Total Dissolved Solids	ND	10	10				
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Sample ID: LCS-72884	SampType: LCS	TestCode: SM2540_TDS	Prep Date: 07/25/13 15:00	Run ID: MANUAL_130725D			
Client ID: LCS-72884	Batch ID: 72884	Units: mg/L	Analysis Date: 07/25/13 18:30	SeqNo: 1945878			
Analyte	Result	MDL	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual

Total Dissolved Solids	415.0	10	10	411.0	0	101	80	120	0				
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Sample ID: M1256-02DDUP	SampType: DUP	TestCode: SM2540_TDS	Prep Date: 07/25/13 15:00	Run ID: MANUAL_130725D			
Client ID: INF 072413	Batch ID: 72884	Units: mg/L	Analysis Date: 07/26/13 5:00	SeqNo: 1945882			
Analyte	Result	MDL	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual

Total Dissolved Solids	270.0	10	10	0	0	0	0	0	276.0	2.2	5.0		
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Work Order: M1256

SM2540_TSS

Project: NOW Corp. Site

SM 2540D -- TOTAL SUSPENDED SOLIDS

Sample ID: MB-72885	SampType: MBLK	TestCode: SM2540_TSS	Prep Date: 07/25/13 15:00	Run ID: MANUAL_130725C							
Client ID: MB-72885	Batch ID: 72885	Units: mg/L	Analysis Date: 07/25/13 15:00	SeqNo: 1940881							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Suspended Solids		ND	10	10							

Sample ID: LCS-72885	SampType: LCS	TestCode: SM2540_TSS	Prep Date: 07/25/13 15:00	Run ID: MANUAL_130725C								
Client ID: LCS-72885	Batch ID: 72885	Units: mg/L	Analysis Date: 07/25/13 17:30	SeqNo: 1940882								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Suspended Solids	40.00	10	10	44.90	0	89.1	80	120	0			

Sample ID: M1256-02DDUP	SampType: DUP	TestCode: SM2540_TSS	Prep Date: 07/25/13 15:00	Run ID: MANUAL_130725C							
Client ID: INF 072413	Batch ID: 72885	Units: mg/L	Analysis Date: 07/26/13 6:00	SeqNo: 1940887							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Suspended Solids	ND	10	0	0	0	0	0	0	0	5.0	

CLIENT: AECOM Technical Services, Inc.

ANALYTICAL QC SUMMARY REPORT

Work Order: M1256 SW9012_W

Project: NOW Corp. Site SW846 9012B -- Total Cyanide

Sample ID: MB-73008	SampType: MBLK	TestCode: SW9012_W	Prep Date: 08/01/13 10:00	Run ID: LACHAT1_130802A
Client ID: MB-73008	Batch ID: 73008	Units: ug/L	Analysis Date: 08/02/13 10:52	SeqNo: 1948984
Analyte	Result	MDL	SPK Ref Val	RPD Ref Val
Cyanide	ND	7.5	SPK value	%RPD RPDLimit
		20	%REC LowLimit HighLimit	Qual

Sample ID: LCS-73008	SampType: LCS	TestCode: SW9012_W	Prep Date: 08/01/13 10:00	Run ID: LACHAT1_130802A
Client ID: LCS-73008	Batch ID: 73008	Units: ug/L	Analysis Date: 08/02/13 10:54	SeqNo: 1948985
Analyte	Result	MDL	SPK Ref Val	RPD Ref Val
Cyanide	94.40	7.5	SPK value	%RPD RPDLimit
		20	100.0	Qual
			0	0
			94.4	120

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF55 072413

Lab ID: M1256-01

Project: NOW Corp. Site

Collection Date: 07/24/13 12:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 1664A -- Oil & Grease, HEM							E1664
Oil & Grease, Total Recoverable	ND		5.0	mg/L	1	08/06/2013 15:59	73046

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: AECOM Technical Services, Inc.

Client Sample ID: INF 072413

Lab ID: M1256-02

Project: NOW Corp. Site

Collection Date: 07/24/13 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 1664A -- Oil & Grease, HEM							E1664
Oil & Grease, Total Recoverable	ND		5.0	mg/L	1	08/06/2013 15:59	73046

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

M

Client: AECOM Technical Services, Inc.
Work Order: M1256
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

E1664
EPA 1664A -- Oil & Grease, HEM

Sample ID: MB-73046	SampType: MBLK	TestCode: E1664	Prep Date: 08/05/13 17:00	Run ID: MANUAL_130806A
Client ID: MB-73046	Batch ID: 73046	Units: mg/L	Analysis Date: 08/06/13 15:59	SeqNo: 1948399
Analyte	Result	MDL	SPK Ref Val	SPK value
Oil & Grease, Total Recoverable	ND	1.2	0	40.00
			%REC	LowLimit HighLimit
			93.3	78 114
			RPD Ref Val	%RPD RPDLimit Qual

Sample ID: LCS-73046	SampType: LCS	TestCode: E1664	Prep Date: 08/05/13 17:00	Run ID: MANUAL_130806A
Client ID: LCS-73046	Batch ID: 73046	Units: mg/L	Analysis Date: 08/06/13 15:59	SeqNo: 1948388
Analyte	Result	MDL	SPK Ref Val	SPK value
Oil & Grease, Total Recoverable	37.30	1.2	0	40.00
			%REC	LowLimit HighLimit
			93.3	78 114
			RPD Ref Val	%RPD RPDLimit Qual

Sample ID: M1256-02BMS	SampType: MS	TestCode: E1664	Prep Date: 08/05/13 17:00	Run ID: MANUAL_130806A
Client ID: INF 072413	Batch ID: 73046	Units: mg/L	Analysis Date: 08/06/13 15:59	SeqNo: 1948391
Analyte	Result	MDL	SPK Ref Val	SPK value
Oil & Grease, Total Recoverable	37.20	1.2	0	40.00
			%REC	LowLimit HighLimit
			93.0	78 114
			RPD Ref Val	%RPD RPDLimit Qual

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

WorkOrder: M1256

Client ID: EARTH_NY
Project: NOW Corp. Site
WO Name: NOW Corp. Site
Location: NOW_CORP,
Comments: N/A

Case: HC Due: 08/13/13
SDG: Fax Due:
PO: 6027 6639 1

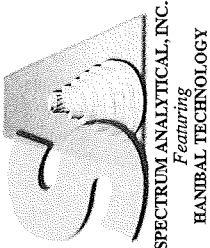
Report Level: LEVEL 2
Special Program:
EDD:

Fax Report: ☐

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M1256-01A	EFF55 072413	07/24/2013 12:05	07/25/2013	Aqueous	SW8260_25_W	/				Y	VOA
M1256-01B	EFF55 072413	07/24/2013 12:05	07/25/2013	Aqueous	E1664	/					H2
M1256-01C	EFF55 072413	07/24/2013 12:05	07/25/2013	Aqueous	SW6010_W	/ See SEL list				Y	M6
M1256-01C	EFF55 072413	07/24/2013 12:05	07/25/2013	Aqueous	SW7470	/ See SEL list					M6
M1256-01D	EFF55 072413	07/24/2013 12:05	07/25/2013	Aqueous	SM2540_TDS	/					H2
M1256-01D	EFF55 072413	07/24/2013 12:05	07/25/2013	Aqueous	SM2540_TSS	/					H2
M1256-01E	EFF55 072413	07/24/2013 12:05	07/25/2013	Aqueous	SW9012_W	/				Y	H2
M1256-02A	INF 072413	07/24/2013 12:15	07/25/2013	Aqueous	SW8260_25_W	/				Y	VOA
M1256-02B	INF 072413	07/24/2013 12:15	07/25/2013	Aqueous	E1664	/					H2
M1256-02C	INF 072413	07/24/2013 12:15	07/25/2013	Aqueous	SW6010_W	/ See SEL list				Y	M6
M1256-02C	INF 072413	07/24/2013 12:15	07/25/2013	Aqueous	SW7470	/ See SEL list					M6
M1256-02D	INF 072413	07/24/2013 12:15	07/25/2013	Aqueous	SM2540_TDS	/					H2
M1256-02D	INF 072413	07/24/2013 12:15	07/25/2013	Aqueous	SM2540_TSS	/					H2
M1256-02E	INF 072413	07/24/2013 12:15	07/25/2013	Aqueous	SW9012_W	/				Y	H2
M1256-03A	TW-1 072413	07/24/2013 12:30	07/25/2013	Aqueous	SW8260_25_W	/				Y	VOA
M1256-04A	TW-2A 072413	07/24/2013 12:20	07/25/2013	Aqueous	SW8260_25_W	/				Y	VOA
M1256-05A	TW-3 072413	07/24/2013 12:25	07/25/2013	Aqueous	SW8260_25_W	/				Y	VOA
M1256-06A	TB 072413	07/24/2013 00:00	07/25/2013	Aqueous	SW8260_25_W	/				Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Page of

CHAIN OF CUSTODY RECORD

☐ 11 Almgren Drive ☐ 8405 Benjamin Road, Ste A
Agawam, MA 01001 Tampa, FL 33634
(413) 789-9018 (813) 888-9507

Report To: Stephen Choiniere
AECOM 40 British American Blvd
Latham NY 12110

Telephone #: 518-951-2200
Project Mgr.

Invoice To: SameP.O. No.: RQN:

1=Na₂SO₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
8=NaHSO₄ 9=Deionized Water 10=H₃PO₄ 11=None 12=

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= X2= X3=

G=Grab C=Composite

Lab Id.	Sample Id.	Date:	Time:	Type	Matrix
M1250-01	EFF 55 072413	7-24-13	12:05	G	GW
- 02	INF 072413		12:15		
- 03	TW-1 072413		12:30		
- 04	TW-2A 072413		12:20		
- 05	TW-3 072413		12:25		
M1250-06	TB 072413				

Containers:

of VOA Vials
of Amber Glass
of Clear Glass
of Plastic

Analyses:

8260
Metals *
TSS/TDS
O+G
Cyanide

List preservative code below:

2 4 11 2 5

QA/QC Reporting Notes:

QA/QC Reporting Level

☐ Level I ☐ Level II
☐ Level III ☐ Level IV
☐ Other

State-specific reporting standards:

*AL, AS, BA, Cr, Cu,
Fe, Mn, Hg, Zn, Ni

Special Handling:

TAT- Indicate Date Needed:
· All TATs subject to laboratory approval.
· Min. 24-hour notification needed for rushes.
· Samples disposed of after 60 days unless otherwise instructed.

Project No.: 60276639 02Site Name: New Corp / 3-14-008Location: Stettinburg State: NYSampler(s): SRG

Relinquished by:

Steve Day
Federx

Received by:

Federx
WLB 70

Date:

7-24-13
7/25/13

Time:

15:05
9:00

Temp °C

34°C

☐ EDD Format

☐ E-mail to

Condition upon receipt: ☐ Ambient ☐ Iced ☐ Refrigerated ☐ DVOA Frozen ☐ Soil Jar Frozen
Custody Seals: ☐ Present ☐ Intact ☐ Broken

Received By: <u>VEB</u>					Page 01 of 00				
Reviewed By: <u>WSL</u>					Log-in Date 07/25/2013				
Work Order: M1256			Client Name: AECOM Technical Services, Inc.						
Project Name/Event: NOW Corp. Site									
Remarks: (1/2) Please see associated sample/extract transfer logbook pages submitted with this data package.									
		Lab Sample ID	Preservation (pH)					VOA Matrix	Soil HeadSpace or Air Bubble > or equal to 1/4"
			HNO3	H2SO4	HCl	NaOH	H3PO4		
1. Custody Seal(s)	<u>Present / Absent</u>	M1256-01	<2		<2	>12		H	
	<u>Intact / Broken</u>	M1256-02	<2		<2	>12		H	
2. Custody Seal Nos.	N/A	M1256-03						H	
		M1256-04						H	
3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists	<u>Present / Absent</u>	M1256-05						H	
		M1256-06						H	
4. Airbill	<u>AirBill / Sticker</u> <u>Present / Absent</u>								
5. Airbill No.	FedEx 8027 0341 8852								
6. Sample Tags	<u>Present / Absent</u>								
Sample Tag Numbers	Listed / <u>Not Listed on Chain-of-Custody</u>								
7. Sample Condition	<u>Intact / Broken / Leaking</u>								
8. Cooler Temperature Indicator Bottle	<u>Present / Absent</u>								
9. Cooler Temperature	3.4 °C								
10. Does information on TR/COCs and sample tags agree?	<u>Yes / No</u>								
11. Date Received at Laboratory	07/25/2013								
12. Time Received	09:00								
Sample Transfer									
Fraction (1) TVOA/VOA	Fraction (2) SVOA/PEST/ARO								
Area #	Area #								
By	By								
On	On								
IR Temp Gun ID: MT-74		VOA Matrix Key: US = Unpreserved Soil A = Air UA = Unpreserved Aqueous H = HCl M = MeOH E = Encore N = NaHSO4 F = Freeze							
Coolant Condition: ICE									
<u>Preservative Name/Lot No:</u>									
		See Sample Condition Notification/Corrective Action Form Yes / <u>No</u>							
		Rad OK <u>Yes</u> / No							

Last Page of Data Report