

Operation, Maintenance and Monitoring Report February 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

April 2013

April 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: "February" 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 (**January 30 – February 27, 2013**).

With the exceptions noted below, if any, the P&T system was online and operational throughout the reporting period. Approximately 691,700 gallons of water were treated during the period. Discharge from the treatment system averaged approximately 24,704 gallons per day (gpd), compared to 25,806 gpd in the prior reporting period.

As of the last day of the reporting period, a total of 92,031,500 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 February 27. **Effluent limitations were not exceeded this reporting period.** A copy of the analytical laboratory report is attached. Table 2 summarizes selected operational data as recorded on the sampling date. For the reporting period, including the sampling event, the VFD on the stripper blower was operating at 55 Hz.

AECOM made two site visits during the period to conduct the required system inspection, perform scheduled maintenance, and to collect water samples. The January 30 service visit was described in the previous report. Details for the current period follow:

February 27 – AECOM was onsite to complete monthly influent, effluent, and recovery well sampling. General housekeeping was performed in the treatment building.

The system efficiency and runtime was evaluated over the month. The system operated without downtime for the period.

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.



Stephen R. Choiniere
Project Manager

Table 1
Summary of Influent and Effluent Data
Sampling Date: February 27, 2013
NOW Corporation Site
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		24,704				Monitor	gallons
pH	7.1	6.8				6.5 to 8.5	standard units
Oil and Grease	<5	<5	NA	NA	NA	15	mg/L
Total Cyanide	<10	<10	NA	NA	NA	10	ug/L
TDS	250	230	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	65 J	67 J	NA	NA	NA	Monitor	ug/L
Chromium	1 J	0.98 J	NA	NA	NA	400	ug/L
Copper	<25	<25	NA	NA	NA	24	ug/L
Iron	<200	<200	NA	NA	NA	600	ug/L
Mercury	<0.2	<0.2	NA	NA	NA	0.8	ug/L
Manganese	94	59	NA	NA	NA	Monitor	ug/L
Nickel	0.97 J	1 J	NA	NA	NA	200	ug/L
Zinc	<50	<50	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	170	<0.5	4.5	300	3.6	10	ug/L
1,1,2-Trichloroethane	<10	<0.5	<2	<20	<0.5	1.2	ug/L
1,1-Dichloroethane	97	<0.5	47	150	14	10	ug/L
1,1-Dichloroethene	11	<0.5	11	<20	1.6	0.5	ug/L
1,2-Dichloroethane	<10	<0.5	<2	<20	<0.5	1.6	ug/L
Benzene	<10	<0.5	<2	<20	<0.5	1.4	ug/L
Chlorobenzene	<10	<0.5	<2	<20	<0.5	10	ug/L
Chloroethane	<10	<0.5	<2	<20	<0.5	10	ug/L
cis -1,2-Dichloroethene	12	<0.5	9.1	<20	<0.5	5	ug/L
Ethylbenzene	<10	<0.5	<2	<20	<0.5	10	ug/L
o-Xylene	<10	<0.5	<2	<20	<0.5	5	ug/L
m,p-Xylene	<10	<0.5	<2	<20	<0.5	10	ug/L
Tetrachloroethene	<10	<0.5	<2	<20	<0.5	1.4	ug/L
Toluene	<10	<0.5	<2	<20	<0.5	10	ug/L
trans -1,2-Dichloroethene	<10	<0.5	<2	<20	<0.5	5	ug/L
Trichloroethene	250	<0.5	85	420	14	6	ug/L
Vinyl Chloride	<10	<0.5	<2	<20	<0.5	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 February 2013 O&M Data

NOW Corporation Site
Town of Clinton, New York

Instrumentation/Readings:		2/27/13	Units
<i>TW-1</i>			
	Pumping Rate	2	GPM
	Water Level Above Transducer	28.03	feet
	Flow Meter Reading	6,506,400	gallons
	Pump Pressure	80	psi
<i>TW-2A</i>			
	Pumping Rate	~14	GPM
	Water Level Above Transducer	53.14	feet
	Flow Meter Reading	26,684,700	gallons
	Pump Pressure	0	psi
<i>TW-3</i>			
	Pumping Rate	4	GPM
	Water Level Above Transducer	26.46	feet
	Flow Meter Reading	10,436,800	gallons
	Pump Pressure	65	psi
<i>VFD Setting</i>			
	Arrival	55	Hz
	Departure	55	Hz
<i>Air Stripper</i>			
	Stripper Blower Pressure	16.5	inches H ₂ O
	Air Temperature in Stripper	50	°F
<i>Effluent Flow</i>			
	Effluent Flow this period (calculated)	691,700	gallons
	Total Effluent Flow (calculated)	92,031,500	gallons

Report Date:
18-Mar-13 16:01



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

Laboratory Report

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

Work Order: M0268
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>
M0268-01	EFF-55-022713	Aqueous	27-Feb-13 12:10	28-Feb-13 10:10
M0268-02	INF-022713	Aqueous	27-Feb-13 12:18	28-Feb-13 10:10
M0268-03	TW-1 022713	Aqueous	27-Feb-13 12:22	28-Feb-13 10:10
M0268-04	TW-2A 022713	Aqueous	27-Feb-13 12:30	28-Feb-13 10:10
M0268-05	TW-3 022713	Aqueous	27-Feb-13 12:38	28-Feb-13 10:10
M0268-06	TB 022713	Aqueous	27-Feb-13 00:00	28-Feb-13 10:10

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 #: M0268

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.

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-022713 (M0268-02A) : Dilution Factor: 20

TW-1 022713 (M0268-03A) : Dilution Factor: 4

TW-2A 022713 (M0268-04A) : Dilution Factor: 40

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.

Signed: _____

Date: 03/18/13

REPORT NARRATIVE

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

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M0268

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: 03/14/2013

REPORT NARRATIVE

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

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M0268

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-022713 (M0268-02BMS).

Percent recovery was 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.

Signed:  _____

Date: 03/18/13

REPORT NARRATIVE

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

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M0268

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

Aqueous 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:

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

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: 03/14/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-55-022713

Lab ID: M0268-01

Project: NOW Corp. Site

Collection Date: 02/27/13 12:10

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 03/05/2013 15:32	70742
Chloroethane	ND		0.50	ug/L		1 03/05/2013 15:32	70742
1,1-Dichloroethene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
trans-1,2-Dichloroethene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
Methyl tert-butyl ether	ND		0.50	ug/L		1 03/05/2013 15:32	70742
1,1-Dichloroethane	ND		0.50	ug/L		1 03/05/2013 15:32	70742
cis-1,2-Dichloroethene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
1,1,1-Trichloroethane	ND		0.50	ug/L		1 03/05/2013 15:32	70742
1,2-Dichloroethane	ND		0.50	ug/L		1 03/05/2013 15:32	70742
Benzene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
Trichloroethene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
Toluene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
1,1,2-Trichloroethane	ND		0.50	ug/L		1 03/05/2013 15:32	70742
Tetrachloroethene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
Chlorobenzene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
Ethylbenzene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
m,p-Xylene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
o-Xylene	ND		0.50	ug/L		1 03/05/2013 15:32	70742
Surrogate: Dibromofluoromethane	99.0		88-124	%REC		1 03/05/2013 15:32	70742
Surrogate: 1,2-Dichloroethane-d4	99.2		79-115	%REC		1 03/05/2013 15:32	70742
Surrogate: Toluene-d8	100		80-114	%REC		1 03/05/2013 15:32	70742
Surrogate: Bromofluorobenzene	99.1		60-123	%REC		1 03/05/2013 15:32	70742

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-022713

Lab ID: M0268-02

Project: NOW Corp. Site

Collection Date: 02/27/13 12:18

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 03/05/2013 15:59	70742
Chloroethane	ND		10	ug/L		20 03/05/2013 15:59	70742
1,1-Dichloroethene	11		10	ug/L		20 03/05/2013 15:59	70742
trans-1,2-Dichloroethene	ND		10	ug/L		20 03/05/2013 15:59	70742
Methyl tert-butyl ether	ND		10	ug/L		20 03/05/2013 15:59	70742
1,1-Dichloroethane	97		10	ug/L		20 03/05/2013 15:59	70742
cis-1,2-Dichloroethene	12		10	ug/L		20 03/05/2013 15:59	70742
1,1,1-Trichloroethane	170		10	ug/L		20 03/05/2013 15:59	70742
1,2-Dichloroethane	ND		10	ug/L		20 03/05/2013 15:59	70742
Benzene	ND		10	ug/L		20 03/05/2013 15:59	70742
Trichloroethene	250		10	ug/L		20 03/05/2013 15:59	70742
Toluene	ND		10	ug/L		20 03/05/2013 15:59	70742
1,1,2-Trichloroethane	ND		10	ug/L		20 03/05/2013 15:59	70742
Tetrachloroethene	ND		10	ug/L		20 03/05/2013 15:59	70742
Chlorobenzene	ND		10	ug/L		20 03/05/2013 15:59	70742
Ethylbenzene	ND		10	ug/L		20 03/05/2013 15:59	70742
m,p-Xylene	ND		10	ug/L		20 03/05/2013 15:59	70742
o-Xylene	ND		10	ug/L		20 03/05/2013 15:59	70742
Surrogate: Dibromofluoromethane	99.2		88-124	%REC		20 03/05/2013 15:59	70742
Surrogate: 1,2-Dichloroethane-d4	99.8		79-115	%REC		20 03/05/2013 15:59	70742
Surrogate: Toluene-d8	102		80-114	%REC		20 03/05/2013 15:59	70742
Surrogate: Bromofluorobenzene	98.4		60-123	%REC		20 03/05/2013 15:59	70742

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: TW-1 022713

Lab ID: M0268-03

Project: NOW Corp. Site

Collection Date: 02/27/13 12:22

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		2.0	ug/L	4	03/05/2013 16:27	70742
Chloroethane	ND		2.0	ug/L	4	03/05/2013 16:27	70742
1,1-Dichloroethene	11		2.0	ug/L	4	03/05/2013 16:27	70742
trans-1,2-Dichloroethene	ND		2.0	ug/L	4	03/05/2013 16:27	70742
Methyl tert-butyl ether	ND		2.0	ug/L	4	03/05/2013 16:27	70742
1,1-Dichloroethane	47		2.0	ug/L	4	03/05/2013 16:27	70742
cis-1,2-Dichloroethene	9.1		2.0	ug/L	4	03/05/2013 16:27	70742
1,1,1-Trichloroethane	4.5		2.0	ug/L	4	03/05/2013 16:27	70742
1,2-Dichloroethane	ND		2.0	ug/L	4	03/05/2013 16:27	70742
Benzene	ND		2.0	ug/L	4	03/05/2013 16:27	70742
Trichloroethene	85		2.0	ug/L	4	03/05/2013 16:27	70742
Toluene	ND		2.0	ug/L	4	03/05/2013 16:27	70742
1,1,2-Trichloroethane	ND		2.0	ug/L	4	03/05/2013 16:27	70742
Tetrachloroethene	ND		2.0	ug/L	4	03/05/2013 16:27	70742
Chlorobenzene	ND		2.0	ug/L	4	03/05/2013 16:27	70742
Ethylbenzene	ND		2.0	ug/L	4	03/05/2013 16:27	70742
m,p-Xylene	ND		2.0	ug/L	4	03/05/2013 16:27	70742
o-Xylene	ND		2.0	ug/L	4	03/05/2013 16:27	70742
Surrogate: Dibromofluoromethane	100		88-124	%REC	4	03/05/2013 16:27	70742
Surrogate: 1,2-Dichloroethane-d4	95.1		79-115	%REC	4	03/05/2013 16:27	70742
Surrogate: Toluene-d8	100		80-114	%REC	4	03/05/2013 16:27	70742
Surrogate: Bromofluorobenzene	98.7		60-123	%REC	4	03/05/2013 16:27	70742

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: TW-2A 022713

Lab ID: M0268-04

Project: NOW Corp. Site

Collection Date: 02/27/13 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	ND		20	ug/L	40	03/05/2013 16:55	70742
Chloroethane	ND		20	ug/L	40	03/05/2013 16:55	70742
1,1-Dichloroethene	ND		20	ug/L	40	03/05/2013 16:55	70742
trans-1,2-Dichloroethene	ND		20	ug/L	40	03/05/2013 16:55	70742
Methyl tert-butyl ether	ND		20	ug/L	40	03/05/2013 16:55	70742
1,1-Dichloroethane	150		20	ug/L	40	03/05/2013 16:55	70742
cis-1,2-Dichloroethene	ND		20	ug/L	40	03/05/2013 16:55	70742
1,1,1-Trichloroethane	300		20	ug/L	40	03/05/2013 16:55	70742
1,2-Dichloroethane	ND		20	ug/L	40	03/05/2013 16:55	70742
Benzene	ND		20	ug/L	40	03/05/2013 16:55	70742
Trichloroethene	420		20	ug/L	40	03/05/2013 16:55	70742
Toluene	ND		20	ug/L	40	03/05/2013 16:55	70742
1,1,2-Trichloroethane	ND		20	ug/L	40	03/05/2013 16:55	70742
Tetrachloroethene	ND		20	ug/L	40	03/05/2013 16:55	70742
Chlorobenzene	ND		20	ug/L	40	03/05/2013 16:55	70742
Ethylbenzene	ND		20	ug/L	40	03/05/2013 16:55	70742
m,p-Xylene	ND		20	ug/L	40	03/05/2013 16:55	70742
o-Xylene	ND		20	ug/L	40	03/05/2013 16:55	70742
Surrogate: Dibromofluoromethane	100		88-124	%REC	40	03/05/2013 16:55	70742
Surrogate: 1,2-Dichloroethane-d4	97.1		79-115	%REC	40	03/05/2013 16:55	70742
Surrogate: Toluene-d8	99.2		80-114	%REC	40	03/05/2013 16:55	70742
Surrogate: Bromofluorobenzene	98.3		60-123	%REC	40	03/05/2013 16:55	70742

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: TW-3 022713

Lab ID: M0268-05

Project: NOW Corp. Site

Collection Date: 02/27/13 12:38

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 03/05/2013 17:23	70742
Chloroethane	ND		0.50	ug/L		1 03/05/2013 17:23	70742
1,1-Dichloroethene	1.6		0.50	ug/L		1 03/05/2013 17:23	70742
trans-1,2-Dichloroethene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
Methyl tert-butyl ether	ND		0.50	ug/L		1 03/05/2013 17:23	70742
1,1-Dichloroethane	14		0.50	ug/L		1 03/05/2013 17:23	70742
cis-1,2-Dichloroethene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
1,1,1-Trichloroethane	3.6		0.50	ug/L		1 03/05/2013 17:23	70742
1,2-Dichloroethane	ND		0.50	ug/L		1 03/05/2013 17:23	70742
Benzene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
Trichloroethene	14		0.50	ug/L		1 03/05/2013 17:23	70742
Toluene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
1,1,2-Trichloroethane	ND		0.50	ug/L		1 03/05/2013 17:23	70742
Tetrachloroethene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
Chlorobenzene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
Ethylbenzene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
m,p-Xylene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
o-Xylene	ND		0.50	ug/L		1 03/05/2013 17:23	70742
Surrogate: Dibromofluoromethane	101		88-124	%REC		1 03/05/2013 17:23	70742
Surrogate: 1,2-Dichloroethane-d4	99.3		79-115	%REC		1 03/05/2013 17:23	70742
Surrogate: Toluene-d8	96.7		80-114	%REC		1 03/05/2013 17:23	70742
Surrogate: Bromofluorobenzene	99.0		60-123	%REC		1 03/05/2013 17:23	70742

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: TB 022713

Lab ID: M0268-06

Project: NOW Corp. Site

Collection Date: 02/27/13 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 03/05/2013 17:50	70742
Chloroethane	ND		0.50	ug/L		1 03/05/2013 17:50	70742
1,1-Dichloroethene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
trans-1,2-Dichloroethene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
Methyl tert-butyl ether	ND		0.50	ug/L		1 03/05/2013 17:50	70742
1,1-Dichloroethane	ND		0.50	ug/L		1 03/05/2013 17:50	70742
cis-1,2-Dichloroethene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
1,1,1-Trichloroethane	ND		0.50	ug/L		1 03/05/2013 17:50	70742
1,2-Dichloroethane	ND		0.50	ug/L		1 03/05/2013 17:50	70742
Benzene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
Trichloroethene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
Toluene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
1,1,2-Trichloroethane	ND		0.50	ug/L		1 03/05/2013 17:50	70742
Tetrachloroethene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
Chlorobenzene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
Ethylbenzene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
m,p-Xylene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
o-Xylene	ND		0.50	ug/L		1 03/05/2013 17:50	70742
Surrogate: Dibromofluoromethane	103		88-124	%REC		1 03/05/2013 17:50	70742
Surrogate: 1,2-Dichloroethane-d4	103		79-115	%REC		1 03/05/2013 17:50	70742
Surrogate: Toluene-d8	98.1		80-114	%REC		1 03/05/2013 17:50	70742
Surrogate: Bromofluorobenzene	100		60-123	%REC		1 03/05/2013 17:50	70742

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: M0268

SW8260_25_W

Project: NOW Corp. Site

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

Sample ID: MB-70742	SampType: MBLK	TestCode: SW8260_25_W	Prep Date: 03/05/13 8:53	Run ID: V5_130305A								
Client ID: MB-70742	Batch ID: 70742	Units: ug/L	Analysis Date: 03/05/13 12:47	SeqNo: 1874183								
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:	9.965		0.50	10.00	0	99.7	88	124		0		
Dibromofluoromethane												
Surrogate: 1,2-	9.965		0.50	10.00	0	99.6	79	115		0		
Dichloroethane-d4												
Surrogate: Toluene-d8	10.03		0.50	10.00	0	100	80	114		0		
Surrogate:	10.19		0.50	10.00	0	102	60	123		0		
Bromofluorobenzene												

S - Recovery outside accepted recovery limits

MDL - Method Detection Limit

B - Analyte detected in the associated Method Blank

ND - Not Detected at the MDL

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.
Work Order: M0268
Project: NOW Corp. Site

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

Sample ID: LCS-70742	SampType: LCS	TestCode: SW8260_25_W	Prep Date: 03/05/13 8:53	Run ID: V5_130305A								
Client ID: LCS-70742	Batch ID: 70742	Units: ug/L	Analysis Date: 03/05/13 10:34	SeqNo: 1874181								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	10.65	0.15	0.50	10.00	0	106	77	120	0			
Chloroethane	10.48	0.24	0.50	10.00	0	105	75	135	0			
1,1-Dichloroethene	10.67	0.19	0.50	10.00	0	107	81	125	0			
trans-1,2-Dichloroethene	10.54	0.14	0.50	10.00	0	105	60	137	0			
Methyl tert-butyl ether	10.70	0.13	0.50	10.00	0	107	61	134	0			
1,1-Dichloroethane	10.22	0.18	0.50	10.00	0	102	82	120	0			
cis-1,2-Dichloroethene	10.44	0.19	0.50	10.00	0	104	84	116	0			
1,1,1-Trichloroethane	9.787	0.11	0.50	10.00	0	97.9	80	124	0			
1,2-Dichloroethane	10.19	0.16	0.50	10.00	0	102	86	117	0			
Benzene	10.22	0.12	0.50	10.00	0	102	81	121	0			
Trichloroethene	10.44	0.13	0.50	10.00	0	104	74	123	0			
Toluene	10.50	0.14	0.50	10.00	0	105	88	117	0			
1,1,2-Trichloroethane	10.80	0.20	0.50	10.00	0	108	83	121	0			
Tetrachloroethene	10.38	0.17	0.50	10.00	0	104	74	115	0			
Chlorobenzene	10.20	0.13	0.50	10.00	0	102	83	112	0			
Ethylbenzene	10.05	0.13	0.50	10.00	0	100	87	110	0			
m,p-Xylene	20.71	0.22	0.50	20.00	0	104	87	114	0			
o-Xylene	10.27	0.17	0.50	10.00	0	103	84	114	0			
Surrogate:	10.21		0.50	10.00	0	102	88	124	0			
Dibromofluoromethane												
Surrogate: 1,2-	10.31		0.50	10.00	0	103	79	115	0			
Dichloroethane-d4												
Surrogate: Toluene-d8	9.842		0.50	10.00	0	98.4	80	114	0			
Surrogate:	9.888		0.50	10.00	0	98.9	60	123	0			
Bromofluorobenzene												

Qualifiers:	ND - Not Detected at the MDL	S - Recovery outside accepted recovery limits	MDL - Method Detection Limit	B - Analyte detected in the associated Method Blank
m13.03.14.A	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	RL - Reporting Limit	

CLIENT: AECOM Technical Services, Inc. ANALYTICAL QC SUMMARY REPORT

Work Order: M0268 SW8260_25_W
Project: NOW Corp. Site SW846 8260C -- VOC by GC-MS (25 mL Purge)

Sample ID: LCSD-70742	SampType: LCSD	TestCode: SW8260_25_W	Prep Date: 03/05/13 8:53	Run ID: V5_130305A								
Client ID: LCSD-70742	Batch ID: 70742	Units: ug/L	Analysis Date: 03/05/13 11:02	SeqNo: 1874182								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	10.26	0.15	0.50	10.00	0	103	77	120	10.65	3.72	40	
Chloroethane	10.36	0.24	0.50	10.00	0	104	75	135	10.48	1.17	40	
1,1,1-Dichloroethene	10.47	0.19	0.50	10.00	0	105	81	125	10.67	1.88	40	
trans-1,2-Dichloroethene	10.18	0.14	0.50	10.00	0	102	60	137	10.54	3.45	40	
Methyl tert-butyl ether	10.46	0.13	0.50	10.00	0	105	61	134	10.70	2.2	40	
1,1-Dichloroethane	10.18	0.18	0.50	10.00	0	102	82	120	10.22	0.399	40	
cis-1,2-Dichloroethene	10.29	0.19	0.50	10.00	0	103	84	116	10.44	1.41	40	
1,1,1-Trichloroethane	9.954	0.11	0.50	10.00	0	99.5	80	124	9.787	1.69	40	
1,2-Dichloroethane	10.22	0.16	0.50	10.00	0	102	86	117	10.19	0.27	40	
Benzene	10.12	0.12	0.50	10.00	0	101	81	121	10.22	0.96	40	
Trichloroethene	10.27	0.13	0.50	10.00	0	103	74	123	10.44	1.7	40	
Toluene	10.12	0.14	0.50	10.00	0	101	88	117	10.50	3.72	40	
1,1,2-Trichloroethane	10.50	0.20	0.50	10.00	0	105	83	121	10.80	2.83	40	
Tetrachloroethene	10.30	0.17	0.50	10.00	0	103	74	115	10.38	0.789	40	
Chlorobenzene	10.18	0.13	0.50	10.00	0	102	83	112	10.20	0.184	40	
Ethylbenzene	10.00	0.13	0.50	10.00	0	100	87	110	10.05	0.438	40	
m,p-Xylene	20.20	0.22	0.50	20.00	0	101	87	114	20.71	2.46	40	
o-Xylene	9.968	0.17	0.50	10.00	0	99.7	84	114	10.27	2.96	40	
Surrogate:	10.25		0.50	10.00	0	102	88	124	0			
Dibromofluoromethane												
Surrogate: 1,2-	9.855		0.50	10.00	0	98.6	79	115	0			
Dichloroethane-d4												
Surrogate: Toluene-d8	9.979		0.50	10.00	0	99.8	80	114	0			
Surrogate:	9.977		0.50	10.00	0	99.8	60	123	0			
Bromofluorobenzene												

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Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

03/14/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-55-022713

Lab ID: M0268-01

Project: NOW Corp. Site

Collection Date: 02/27/13 12:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							SW6010_W
Aluminum	ND		200	ug/L		1 03/07/2013 8:42	70754
Arsenic	ND		20	ug/L		1 03/07/2013 8:42	70754
Barium	67	J	200	ug/L		1 03/07/2013 8:42	70754
Chromium	0.98	J	20	ug/L		1 03/07/2013 8:42	70754
Copper	ND		25	ug/L		1 03/07/2013 8:42	70754
Iron	ND		200	ug/L		1 03/07/2013 8:42	70754
Manganese	59		50	ug/L		1 03/07/2013 8:42	70754
Nickel	1.0	J	50	ug/L		1 03/07/2013 8:42	70754
Zinc	ND		50	ug/L		1 03/07/2013 8:42	70754
SW846 7470A -- Mercury by FIA							SW7470
Mercury	ND		0.20	µg/L		1 03/04/2013 16:14	70717

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. Featuring Hanibal Technology -- Rhode Island Division

03/14/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-022713

Lab ID: M0268-02

Project: NOW Corp. Site

Collection Date: 02/27/13 12:18

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							SW6010_W
Aluminum	ND		200	ug/L		1 03/07/2013 8:46	70754
Arsenic	ND		20	ug/L		1 03/07/2013 8:46	70754
Barium	65	J	200	ug/L		1 03/07/2013 8:46	70754
Chromium	1.0	J	20	ug/L		1 03/07/2013 8:46	70754
Copper	ND		25	ug/L		1 03/07/2013 8:46	70754
Iron	ND		200	ug/L		1 03/07/2013 8:46	70754
Manganese	94		50	ug/L		1 03/07/2013 8:46	70754
Nickel	0.97	J	50	ug/L		1 03/07/2013 8:46	70754
Zinc	ND		50	ug/L		1 03/07/2013 8:46	70754
SW846 7470A -- Mercury by FIA							SW7470
Mercury	ND		0.20	µg/L		1 03/04/2013 16:15	70717

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: M0268
Project: NOW Corp. Site

SW6010_W
SW846 6010C -- Metals by ICP

Sample ID: MB-70754	SampType: MBLK	TestCode: SW6010_W	Prep Date: 03/06/13 9:04	Run ID: OPTIMA3_130307A								
Client ID: MB-70754	Batch ID: 70754	Units: ug/L	Analysis Date: 03/07/13 8:31	SeqNo: 1875101								
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	ND	0.64	20									
Copper	ND	3.6	30									
Iron	ND	31	200									
Manganese	ND	10	50									
Nickel	ND	0.85	50									
Zinc	ND	4.9	50									

Sample ID: LCS-70754		SampType: LCS		TestCode: SW6010_W		Prep Date: 03/06/13 9:04		Run ID: OPTIMA3_130307A				
Client ID: LCS-70754		Batch ID: 70754		Units: ug/L		Analysis Date: 03/07/13 8:35		SeqNo: 1875102				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9267	66	200	9100	0	102	80	120	0			
Arsenic	486.2	4.3	20	455.0	0	107	80	120	0			
Barium	9603	1.1	200	9100	0	106	80	120	0			
Chromium	926.7	0.64	20	910.0	0	102	80	120	0			
Copper	1137	3.6	30	1130	0	101	80	120	0			
Iron	4706	31	200	4550	0	103	80	120	0			
Manganese	2355	10	50	2270	0	104	80	120	0			
Nickel	2344	0.85	50	2270	0	103	80	120	0			
Zinc	2324	4.9	50	2270	0	102	80	120	0			

CLIENT: AECOM Technical Services, Inc. ANALYTICAL QC SUMMARY REPORT

Work Order: M0268 SW7470
Project: NOW Corp. Site SW846 7470A -- Mercury by FIA

Sample ID: MB-70717	SampType: MBLK	TestCode: SW7470	Prep Date: 03/04/13 11:30	Run ID: FIMS2_130304A
Client ID: MB-70717	Batch ID: 70717	Units: µg/L	Analysis Date: 03/04/13 15:50	SeqNo: 1873383
Analyte	Result	MDL	SPK value	SPK Ref Val
Mercury	ND	0.028	0.20	RPD Ref Val
				%RPD RPDLimit
				Qual

Sample ID: LCS-70717	SampType: LCS	TestCode: SW7470	Prep Date: 03/04/13 11:30	Run ID: FIMS2_130304A
Client ID: LCS-70717	Batch ID: 70717	Units: µg/L	Analysis Date: 03/04/13 15:55	SeqNo: 1873386
Analyte	Result	MDL	SPK value	SPK Ref Val
Mercury	4.226	0.028	0.20	RPD Ref Val
				%RPD RPDLimit
				Qual

Qualifiers:	ND - Not Detected at the MDL	S - Recovery outside accepted recovery limits	MDL - Method Detection Limit	B - Analyte detected in the associated Method Blank
m13.03.05.A	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	RL - Reporting Limit	

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

03/12/2013

Client: AECOM Technical Services, Inc.**Client Sample ID:** EFF-55-022713**Project:** NOW Corp. Site**Lab ID:** M0268-01**Collection Date:** 02/27/13 12:10

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 03/12/2013 0:00	70816

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. Featuring Hanibal Technology -- Rhode Island Division

03/12/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-022713

Project: NOW Corp. Site

Lab ID: M0268-02

Collection Date: 02/27/13 12:18

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	03/12/2013 0:00	70816

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

MKS

Client: AECOM Technical Services, Inc.

Work Order: M0268

Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

E1664

EPA 1664A -- Oil & Grease, HEM

Sample ID: MB-70816	SampType: MBLK	TestCode: E1664	Prep Date: 03/11/13 14:59	Run ID: MANUAL_130312A
Client ID: MB-70816	Batch ID: 70816	Units: mg/L	Analysis Date: 03/12/13 0:00	SeqNo: 1876498
Analyte	Result	MDL	SPK value	SPK Ref Val
Oil & Grease, Total Recoverable	ND	1.2	5.0	RPD Ref Val
				%RPD RPDLimit Qual
Sample ID: LCS-70816	SampType: LCS	TestCode: E1664	Prep Date: 03/11/13 14:59	Run ID: MANUAL_130312A
Client ID: LCS-70816	Batch ID: 70816	Units: mg/L	Analysis Date: 03/12/13 0:00	SeqNo: 1876484
Analyte	Result	MDL	SPK value	SPK Ref Val
Oil & Grease, Total Recoverable	39.10	1.2	40.00	RPD Ref Val
				%RPD RPDLimit Qual
Sample ID: LCSD-70816	SampType: LCSD	TestCode: E1664	Prep Date: 03/11/13 14:59	Run ID: MANUAL_130312A
Client ID: LCSD-70816	Batch ID: 70816	Units: mg/L	Analysis Date: 03/12/13 0:00	SeqNo: 1876485
Analyte	Result	MDL	SPK value	SPK Ref Val
Oil & Grease, Total Recoverable	37.10	1.2	40.00	RPD Ref Val
				%RPD RPDLimit Qual
Sample ID: M0268-02BMS	SampType: MS	TestCode: E1664	Prep Date: 03/11/13 14:59	Run ID: MANUAL_130312A
Client ID: INF-022713	Batch ID: 70816	Units: mg/L	Analysis Date: 03/12/13 0:00	SeqNo: 1876488
Analyte	Result	MDL	SPK value	SPK Ref Val
Oil & Grease, Total Recoverable	35.50	1.2	40.00	RPD Ref Val
				%RPD RPDLimit Qual

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

03/14/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-55-022713

Lab ID: M0268-01

Project: NOW Corp. Site

Collection Date: 02/27/13 12:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2540C -- TOTAL DISSOLVED SOLIDS							SM2540_TDS
Total Dissolved Solids	230		10	mg/L	1	03/05/2013 17:50	70750
SM 2540D -- TOTAL SUSPENDED SOLIDS							SM2540_TSS
Total Suspended Solids	ND		10	mg/L	1	03/05/2013 16:51	70751
SW846 9012B -- Total Cyanide							SW9012_W
Cyanide	ND		10	ug/L	1	03/12/2013 11:55	70815

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. Featuring Hanibal Technology -- Rhode Island Division

03/14/2013

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-022713

Lab ID: M0268-02

Project: NOW Corp. Site

Collection Date: 02/27/13 12:18

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2540C -- TOTAL DISSOLVED SOLIDS							SM2540_TDS
Total Dissolved Solids	250		10	mg/L	1	03/05/2013 18:45	70750
SM 2540D -- TOTAL SUSPENDED SOLIDS							SM2540_TSS
Total Suspended Solids	ND		10	mg/L	1	03/05/2013 16:55	70751
SW846 9012B -- Total Cyanide							SW9012_W
Cyanide	ND		10	ug/L	1	03/12/2013 11:58	70815

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.
WORK ORDER: M0268
PROJECT: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT
SM2540_TDS
SM 2540C -- TOTAL DISSOLVED SOLIDS

Sample ID: MB-70750	SampType: MBLK	TestCode: SM2540_TDS	Prep Date: 03/05/13 16:00	Run ID: MANUAL_130305C				
Client ID: MB-70750	Batch ID: 70750	Units: mg/L	Analysis Date: 03/05/13 16:00	SeqNo: 1875754				
Analyte	Result	MDL	SPK value	SPK Ref Val	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids		ND	10					

Sample ID: LCS-70750	SampType: LCS	TestCode: SM2540_TDS	Prep Date: 03/05/13 16:00	Run ID: MANUAL_130305C					
Client ID: LCS-70750	Batch ID: 70750	Units: mg/L	Analysis Date: 03/05/13 16:55	SeqNo: 1875755					
Analyte	Result	MDL	SPK value	SPK Ref Val	RPD Ref Val	%RPD	RPDLimit	Qual	
Total Dissolved Solids		254.0	10	266.0	0	95.5	80	120	0

CLIENT: AECOM Technical Services, Inc. ANALYTICAL QC SUMMARY REPORT

Work Order: M0268 SM2540_TSS
Project: NOW Corp. Site SM 2540D -- TOTAL SUSPENDED SOLIDS

Sample ID: MB-70751	SampType: MBLK	TestCode: SM2540_TSS	Prep Date: 03/05/13 16:00	Run ID: MANUAL_130305A
Client ID: MB-70751	Batch ID: 70751	Units: mg/L	Analysis Date: 03/05/13 16:00	SeqNo: 1874554
Analyte	Result	MDL	SPK value	SPK Ref Val
	ND	10	%REC LowLimit HighLimit	RPD Ref Val %RPD RPDLimit Qual
Total Suspended Solids				

Sample ID: LCS-70751	SampType: LCS	TestCode: SM2540_TSS	Prep Date: 03/05/13 16:00	Run ID: MANUAL_130305A
Client ID: LCS-70751	Batch ID: 70751	Units: mg/L	Analysis Date: 03/05/13 16:04	SeqNo: 1874555
Analyte	Result	MDL	SPK value	SPK Ref Val
	57.00	10	61.00	RPD Ref Val %RPD RPDLimit Qual
Total Suspended Solids				

CLIENT: AECOM Technical Services, Inc.

ANALYTICAL QC SUMMARY REPORT

Work Order: M0268

SW9012_W

Project: NOW Corp. Site

SW846 9012B -- Total Cyanide

Sample ID: MB-70815	SampType: MBLK	TestCode: SW9012_W	Prep Date: 03/11/13 9:15	Run ID: LACHAT1_130312A
Client ID: MB-70815	Batch ID: 70815	Units: ug/L	Analysis Date: 03/12/13 11:50	SeqNo: 1876932
Analyte	Result	MDL	SPK Ref Val	RPD Ref Val
Cyanide	ND	7.5	SPK value	%RPD RPDLimit
		20		Qual

Sample ID: LCS-70815	SampType: LCS	TestCode: SW9012_W	Prep Date: 03/11/13 9:15	Run ID: LACHAT1_130312A
Client ID: LCS-70815	Batch ID: 70815	Units: ug/L	Analysis Date: 03/12/13 11:53	SeqNo: 1876933
Analyte	Result	MDL	SPK Ref Val	RPD Ref Val
Cyanide	94.07	7.5	100.0	%RPD RPDLimit
		20	0	Qual
			94.1	120
			80	0

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0268

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

Case: HC Due: 03/19/13
SDG: Fax Due:
PO: 6027 6639 1
Report Level: LEVEL 2
Special Program:
EDD:

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0268-01A	EFF-55-022713	02/27/2013 12:10	02/28/2013	Aqueous	SW8260_25_W	/				Y	VOA
M0268-01B	EFF-55-022713	02/27/2013 12:10	02/28/2013	Aqueous	E1664	/					L2
M0268-01C	EFF-55-022713	02/27/2013 12:10	02/28/2013	Aqueous	SW6010_W	/ See SEL list				Y	M2
M0268-01C	EFF-55-022713	02/27/2013 12:10	02/28/2013	Aqueous	SW7470	/ See SEL list					M2
M0268-01D	EFF-55-022713	02/27/2013 12:10	02/28/2013	Aqueous	SM2540_TDS	/					L2
M0268-01D	EFF-55-022713	02/27/2013 12:10	02/28/2013	Aqueous	SM2540_TSS	/					L2
M0268-01E	EFF-55-022713	02/27/2013 12:10	02/28/2013	Aqueous	SW9012_W	/				Y	L2
M0268-02A	INF-022713	02/27/2013 12:18	02/28/2013	Aqueous	SW8260_25_W	/				Y	VOA
M0268-02B	INF-022713	02/27/2013 12:18	02/28/2013	Aqueous	E1664	/					L2
M0268-02C	INF-022713	02/27/2013 12:18	02/28/2013	Aqueous	SW6010_W	/ See SEL list				Y	M2
M0268-02C	INF-022713	02/27/2013 12:18	02/28/2013	Aqueous	SW7470	/ See SEL list					M2
M0268-02D	INF-022713	02/27/2013 12:18	02/28/2013	Aqueous	SM2540_TDS	/					L2
M0268-02D	INF-022713	02/27/2013 12:18	02/28/2013	Aqueous	SM2540_TSS	/					L2
M0268-02E	INF-022713	02/27/2013 12:18	02/28/2013	Aqueous	SW9012_W	/				Y	L2
M0268-03A	TW-1 022713	02/27/2013 12:22	02/28/2013	Aqueous	SW8260_25_W	/				Y	VOA
M0268-04A	TW-2A 022713	02/27/2013 12:30	02/28/2013	Aqueous	SW8260_25_W	/				Y	VOA
M0268-05A	TW-3 022713	02/27/2013 12:38	02/28/2013	Aqueous	SW8260_25_W	/				Y	VOA
M0268-06A	TB 022713	02/27/2013 00:00	02/28/2013	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



Special Handling:

TAT- Indicate Date Needed: _____

- All TATs subject to laboratory approval.
Min. 24-hour notification needed for rushes.
- Samples disposed of after 30 days unless otherwise instructed.

Page 1 of 1

Report To: AECOM

40 British American Blvd.
Latham NY 12110

Invoice To: [REDACTED]

Same

Invoice To: Same

Project No.: 60276639 1

Site Name: New Corp

Location: Staatsburg State: NY

Sampler(s): SPG

Project Mgr.: Stephen Chainiere

P.O. No.: _____ RQN: _____

1= $\text{Na}_2\text{S}_2\text{O}_3$ 2= HCl 3= H_2SO_4 4= HNO_3 5= NaOH 6=Ascorbic Acid 7= CH_3OH
8= NaHSO_4 9= *None* 10= 11=

Notes:

List preservative code below:

Notes:

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

Containers:

Analyses:

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,
N

□ E-mail to info@openminded.org

EDD Format

Condition upon receipt: ☒ Iced ☐ Ambient ☒ °C 4

Relinquished by:

Received by:

Time:

Steve Darr

Feb 3rd x

2/27/13 15:40

FedEx

Vern Briggs

2/28/13	15:016
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Received By: <u>AED</u>		Page 01 of 00	
Reviewed By: <u>VEB</u>		Log-in Date 02/28/2013	
Work Order: M0268		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.			
		Preservation (pH)	
Lab Sample ID		HNO3	H2SO4
		HCl	NaOH
		H3PO4	VOA Matrix
		Soil HeadSpace or Air Bubble > or equal to 1/4"	
1. Custody Seal(s)		Present / Absent	
		M0268-01	
2. Custody Seal Nos.		Intact / Broken	
N/A		M0268-02	
3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists		Present / Absent	
		M0268-03	
		M0268-04	
		M0268-05	
		M0268-06	
4. Airbill		AirBill / Sticker	
		Present / Absent	
5. Airbill No.		FedEx 8996 2349 6046	
6. Sample Tags		Present / Absent	
Sample Tag Numbers		Listed /	
		Not Listed on Chain-of-Custody	
7. Sample Condition		Intact / Broken / Leaking	
8. Cooler Temperature Indicator Bottle		Present / Absent	
9. Cooler Temperature		4 °C	
10. Does information on TR/COCs and sample tags agree?		Yes / No	
11. Date Received at Laboratory		02/28/2013	
12. Time Received		10:10	
Sample Transfer			
Fraction (1) TVOA/VOA		Fraction (2) SVOA/PEST/ARO	
Area #		Area #	
By		By	
On		On	
IR Temp Gun ID: MT-1		VOA Matrix Key:	
Coolant Condition: ICE		US = Unpreserved Soil A = Air	
Preservative Name/Lot No:		UA = Unpreserved Aqueous H = HCl	
		M = MeOH E = Encore	
		N = NaHSO4 F = Freeze	
		See Sample Condition Notification/Corrective Action Form Yes / No	
		Rad OK Yes / No	

Last Page of Data Report