



October 3, 2014

Mr. Lance Norris
Public Works Director
Public Works
Town of Chapel Hill
6850 Millhouse Road
Chapel Hill, NC 27516-8173
lnorris@townofchapelhill.org

Re: Responses to NC DENR September 19, 2014 Letter
828 Martin Luther King Jr Blvd, Chapel Hill NC
Site ID # NONCD0001486
PN E13047

Dear Mr. Norris:

Falcon Engineering, Inc. (Falcon) is in receipt of the September 19, 2014 letter from Ms. Amy Axon with the Division of Waste Management of NC DENR. This letter has been provided as Attachment A to this letter for reference. Falcon staff has reviewed the comments and a request provided by Ms. Axon and provides the following information in response.

Responses to Report Review Comments

1. The Environmental Site Characterization document (3/25/2014) Tables 4 and 6 have been updated and are attached to reflect the Inactive Hazardous Waste Branch's Preliminary Soil Remediation Goal (PSRG) rather than the NC DENR Maximum Soil Contaminant Concentrations (MSCC). Table 5 was not impacted by this change and has therefore not been updated. While some of the regulatory values have changed the material impact remains unchanged that these materials are consistent with Coal Combustion Products (CCP) and are above remedial goals within the six (6) soil sampling locations provided for several constituents, specifically Hexavalent Chromium, Arsenic, Barium, Selenium, and Toxaphene. These updated Tables are provided within Attachment B.
2. The Updated Groundwater Sampling Report (9/2/2014) was missing the two chains of custodies from the lab reports. These missing pages have been provided within Attachment C.
3. Based upon the NC DENR request, Falcon was under the understanding that if turbidity levels were high within the monitoring wells (as evidenced by the provided turbidity samples), then filtered samples should be collected. Since unfiltered samples were already provided for these wells, it was understood that these unfiltered samples were not being requested. These monitoring wells have a very low recharge rate so collection of both filtered and unfiltered samples, during the same sampling mobilization, is not possible. MW-4 unfiltered samples were

collected on August 15 and 20, 2014. The full lab reports for both August 15 and 20, 2014 are attached within Attachment C.

4. All wells were purged dry twice prior to sample collection. Based upon Groundwater Sampling Procedures, as outlined within the U. S. Environmental Protection Agency (USEPA) Region IV Science And Ecosystem Support Division (SESD) *Field Branches Quality System and Technical Procedures*, specifically Sections 3.2.1.1.2 and 3.2.1.1.3, these wells do not exhibit signs of becoming stable following purging. Pursuant to this guidance, turbidity was shown to be above 10 NTUs and therefore not stabilized, however Section 3.2.1.1.3 indicates that adequacy of purging can be evidenced by these wells being purged dry. Excerpts from this guidance are provided within Attachment D.
5. Trigon Drilling, a certified well drilling company, provided all drilling services for MW-3 and MW-4. The well construction records are being corrected per the comments. Comments and updates on these records will be provided by Trigon Drilling under separate cover to The Town of Chapel Hill.
6. Question #5 of the Site Conditions Questionnaire was answered based upon the filtered samples from both MW-3 and MW-4. MW-1 is installed directly within the contaminant area and is up gradient of groundwater flow. MW-3 and MW-4 provide more adequate evaluation of groundwater impacts as these would be more indicative of an off-property groundwater sample. To adequately determine impact to groundwater from an exposure risk model on-site groundwater samples that are collected within the source area are not appropriate risk indicators.

Response to Request for Additional Information

1. As mentioned previously all sampling records from August 15 and 20, 2014 have been included for information. Again it was not Falcon's understanding that NC DENR desired these additional non-filtered results. Full lab results are provided in Attachment C.
2. These previously installed wells were installed by a certified well driller (Trigon Drilling) and based upon our conversations, these wells were installed in compliance with NCAC Title 15A, Subchapter 2C, Section .0100. Due to existing site conditions, alternative well construction methods will be used when these wells are reconstructed. These current wells will be properly abandoned to eliminate any cross contamination. All proposed well construction methods will be provided to NC DENR prior to reconstruction.
3. As requested, once MW-3 and MW-4 have been reconstructed, sampling will be completed for metals in groundwater (including MW-1). All sampling will continue to adhere to and follow NC DENR and US EPA guidance for sampling of groundwater. Turbidity readings will be collected and no sampling completed until acceptable turbidity can be achieved.



4. As requested a work plan will be prepared and submitted to NC DENR for review and approval prior to completion of the above requested items. Falcon will coordinate with Town of Chapel Hill staff for submission of this work plan.

This site continues to employ engineered controls to restrict access and prevent soil runoff from this site. These measures have been and will continue to remain in place to ensure this site does not pose a risk to human health or the environment. Based upon their current conditions, these measures continue to remain adequate and effective.

If you have any questions, please give me a call at (919) 871-0800.

Sincerely,

FALCON ENGINEERING, INC.



Josh Dunbar, PE
Director of Design Services

Enclosures



ATTACHMENT A | SEPTEMBER 19, 2014 NC DENR LETTER





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North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

September 19, 2014

Roger L. Stancil, Town Manager
Town of Chapel Hill
405 Martin Luther King Jr. Blvd
Chapel Hill NC 27514

Re: Chapel Hill Police Department Property
828 Martin Luther King Jr Blvd, Chapel Hill, Orange County, NC
Site ID# NONCD0001486

- Phase I & Limited Phase II Environmental Site Assessment (7/18/13)
- Environmental Site Characterization (3/25/14)
- Updated Groundwater Sampling Report and Site Conditions Questionnaire (9/2/14)

Dear Mr. Stancil:

I have completed a review of the above referenced documents and have the following observations and comments:

1. In the Environmental Site Characterization document (3/25/14) Tables 4, 5 and 6 provide Maximum Soil Contaminant Concentrations for soil to groundwater, Residential and Commercial. The concentrations cited are not applicable. Refer to the Inactive Hazardous Waste Branch; Soil Remediation Goals Table located here <http://portal.ncdenr.org/web/wm/sf/ihs/ihsguide>.
2. The Updated Groundwater Sampling Report (9/2/14) was incomplete. The lab sheets for each sample event were missing the last page. Also, no chain of custody was included.
3. During sample collection for metals it is important to ensure that the turbidity of the water is low in order to get an accurate analysis of transmittable metals in the aquifer. During the August 20 sample collection event, no turbidity reading was provided for MW-4, nor was a pre-filter sample collected from either monitoring well. Therefore, the sample results from this event cannot be compared to cleanup standards.
4. We did not find that field parameters, such as temp, pH, turbidity and Specific Conductivity were taken at the time of sample collection to show adequate well purging prior to sampling.
5. The well drilling records (GW-1 forms) for MW-3 and MW-4, provided in the Environmental Site Characterization document (3/25/14), are inaccurate and incomplete. For example, the records for MW-3 do not have any information on the depth and length of the casing and for MWW-4, the record states that the casing is 9'2" deep, which is the total depth of the well. Also, there is no mention of a

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bentonite seal, which is required in the annular space directly in contact and above the packing material. Due to these incorrect records, we cannot tell if the wells were constructed in compliance with NCAC Title 15A, Subchapter 2C, Section .0100. The well construction details mentioned here have direct bearing on the ability to properly purge and obtain a non-turbid sample.

6. In response to Question #5 in the Site Conditions Questionnaire, you state that site groundwater has been confirmed to not be impacted. However, results from MW-1 show exceedances of the 15A NCAC 2L standards. Also, as indicated above, the latest sample results from MW-4 and MW-3 are not valid for comparison to standards.

Based on the comments above, we will need the following information to evaluate whether the site requires any remediation:

1. Please submit all sample analysis, all lab sheets, field notes and copies of the chain of custody documents related to the sampling efforts on August 15 and 20, 2014.
2. Due to the incorrect well drilling records for MW-3 and MW-4, which are necessary to show proper construction, along with the ongoing turbidity issues and low recharge of these wells, it is recommended that you construct new monitoring wells that comply with NCAC Title 15A, Subchapter 2C, Section .0100 well construction standards. Please ensure that you use a certified well driller that properly constructs and accurately documents the details of the new monitoring wells. Due to potential turbidity problems at the site, you may want to use a finer packing material, such as a #1 or #00 sand pack and a smaller slot size for the screen. Also, MW-3 and MW-4 should be properly abandoned in accordance with these standards so that they do not act as a source of contamination.
3. Once the new monitoring wells have been installed and properly developed, collect groundwater samples from all of the monitoring wells (including MW-1) in order to determine the levels of total metals in the groundwater. Prior to collection of the samples, turbidity readings should be collected. If turbidity is elevated a sample should not be collected. Additional well development and other procedures may be necessary. Please be sure to follow the US EPA Region IV Science and Ecosystem Support Division Field Branches Quality System and Technical Procedures as referenced in Section 2 of the *Inactive Hazardous Sites Program Guidelines for Assessment and Cleanup* located on our website.
4. We recommend that you prepare a work plan for our review prior to conducting this work.

Until it has been determined that the site is not posing risk to human health or the environment, you must control site access and take measures to prevent soil run off. If you have any questions, please do not hesitate to contact me at (919) 707-8371 or via email at amy.axon@ncdenr.gov.

Sincerely,



Amy Axon, Hydrogeologist
Division of Waste Management, NCDENR

cc: Curtis Brooks, Town of Chapel Hill
Josh Dunbar, Falcon Engineering

ATTACHMENT B | UPDATED TABLES



TABLE 4 | SUMMARY OF COMPOSITE SOIL SAMPLING LAB RESULTS

| Constituent of Potential Concern (COPC) | Units | Sampling Locations | | | Preliminary Soil Remediation Goal (PSRG) | | |
|---|-------|--------------------|--------------|--------------|--|---------------|----------------|
| | | S-5 | S-6 | S-7 | Protection of GW | Residential | Industrial |
| Hexavalent Chromium | mg/kg | 1.3 | 2.7 | 1.4 | <u>3.8</u> | <u>0.30</u> | <u>6.3</u> |
| Mercury | mg/kg | 0.3 | 0.42 | 0.44 | <u>1.0</u> | <u>1.9</u> | <u>3.1</u> |
| Arsenic | mg/kg | 37 | 43 | 44 | <u>5.8</u> | <u>0.67</u> | <u>3.0</u> |
| Barium | mg/kg | 2,800 | 3,200 | 2,500 | <u>580</u> | <u>3,000</u> | <u>44,000</u> |
| Chromium | mg/kg | 21 | 22 | 29 | <u>360,000</u> | <u>24,000</u> | <u>100,000</u> |
| Lead | mg/kg | 10 | 12 | 11 | 270 | 400 | <u>800</u> |
| Selenium | mg/kg | 3.2 | 6.1 | 4.5 | <u>2.1</u> | <u>78</u> | <u>1,200</u> |
| 4-Isopropyltoluene | mg/kg | 0.051 | ND | 0.024 | <u>0.68</u> | NA | NA |
| Acetone | mg/kg | 0.14 | 0.17 | 0.11 | 24 | <u>12,000</u> | <u>100,000</u> |
| Methyl Ethyl Ketone (2-Butanone) | mg/kg | BRL | 0.0086 | BRL | 16 | <u>5,400</u> | <u>28,000</u> |
| Toxaphene | mg/kg | BRL | BRL | 0.17 | <u>0.046</u> | <u>0.48</u> | <u>2.1</u> |

NOTES:

Values shown in **BOLD** are above the most stringent of the applicable PSRG

BRL = Below Reporting Limit

NA = Not applicable. No PSRG for this constituent

PSRG based on September 2014 PSRG Table

Values that are underlined are values that were revised from the 3/25/14 Report

TABLE 5 | SUMMARY OF GEOPROBE COLLECTED DATA

| Geoprobe Location ID | Final Boring Depth (ft bgs) | Depths Ash Present (ft bgs) | Soil Sampling Depth (ft bgs) | Notes |
|----------------------|-----------------------------|-----------------------------|------------------------------|--|
| GP-1 | 14 | 9 - 12 | 8 - 12 | Refusal at 14 ft bgs into weathered rock |
| GP-2 | 35 | 5 - 30 | 26 - 28 | Refusal at 35 ft bgs |
| GP-3 | 17 | 10 - 16 | 10 - 12 | Refusal at 17 ft bgs due to possible landfill debris |
| GP-4 | 20 | 3 - 16 | 10 - 12 | Into native soils at 17 ft bgs |
| GP-5-A | 8 | 4 - 8 | No Samples | Refusal from wood debris at 8 ft bgs |
| GP-5 | 12 | 4 - 8 | Sampled 4 - 6 | Refusal at 12 ft bgs |
| GP-6 | 26 | 11 - 23 | 9 - 11 | Into native soils at 24 ft bgs |
| GP-7 | 20 | 3 - 14 | 10 - 12 | Into native soils at 16 ft bgs |
| GP-8 | 17 | 5 - 15 | 11 - 15 | Into native soils at 16 ft bgs |
| GP-9 | 8 | - | No Samples | Into native soils at 4 ft bgs / No ash observed |
| GP-10 | 8 | - | No Samples | Into native soils at 1 ft bgs / No ash observed |
| GP-11 | 9 | 3 - 9 | 4 - 6 | Refusal at 9 ft bgs |
| GP-12 | 12 | 2 - 10 | 2 - 4 | Into native soils at 11 ft bgs |

TABLE 6 | SUMMARY OF GEOPROBE SOIL SAMPLE LAB RESULTS

| Constituent of Potential Concern (COPC) | Units | Sampling Locations | | | Preliminary Soil Remediation Goal (PSRG) | | |
|---|-------|--------------------|--------------|--------------|--|---------------|----------------|
| | | GP-1 | GP-2 | GP-3 | Protection of Ground Water | Residential | Commercial |
| Mercury | mg/kg | 0.083 | 0.24 | 0.42 | <u>1.0</u> | <u>1.9</u> | <u>3.1</u> |
| Arsenic | mg/kg | 3.5 | 41 | 48 | <u>5.8</u> | <u>0.67</u> | <u>3.0</u> |
| Barium | mg/kg | 86 | 1,100 | 1,200 | <u>580</u> | <u>3,000</u> | <u>44,000</u> |
| Chromium | mg/kg | 8.8 | 19 | 23 | <u>360,000</u> | <u>24,000</u> | <u>100,000</u> |
| Lead | mg/kg | 26 | 11 | 39 | 270 | 400 | <u>800</u> |
| Selenium | mg/kg | BRL | 4 | BRL | <u>2.1</u> | <u>78</u> | <u>1200</u> |
| Hexavalent Chromium | mg/kg | BRL | BRL | 0.53 | <u>3.8</u> | <u>0.30</u> | <u>6.3</u> |

NOTES:

Values shown in **Bold** are above the most stringent of the applicable PRSG

BRL = Below Reporting Limit

NA = Not applicable. No PSRG for this constituent

PSRG based on September 2014 PSRG Table

Values that are underlined are values that were revised from the 3/25/14 Report

ATTACHMENT C | LABORATORY DATA





Full-Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert No. 37735
VA Certification No. 460211
DoD ELAP: L-A-B Accredited Certificate No. L2307
ISO/IEC 17025: L-A-B Accredited Certificate No. L2307

Case Narrative

09/03/2014

Falcon Engineering
Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Lab Submittal Date: 08/18/2014
Prism Work Order: 4080360

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Please call if you have any questions relating to this analytical report.

Respectfully,

PRISM LABORATORIES, INC.

Angela D. Overcash
VP Laboratory Services

Reviewed By Robbi A. Jones For Angela D. Overcash
President/Project Manager

Data Qualifiers Key Reference:

- A % recovery within QC limits but below RL.
Aa CCV result is above range on the secondary confirmation column. Results are reported from the primary column. Analyte was not detected. No further action taken.
Ab ECV is above range on the secondary confirmation column. Results are reported from the primary column. Sample is BDL. No further action taken.
HT Sample received and analyzed outside of the hold time.
LCD2 LCS/LCSD RPD Value outside of the control limits. LCS and LCSD Values within the control limits.
SR Surrogate recovery outside the QC limits.
BRL Below Reporting Limit
MDL Method Detection Limit
RPD Relative Percent Difference
* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

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| Client Sample ID | Lab Sample ID | Matrix | Date Sampled | Date Received |
|------------------|---------------|--------|--------------|---------------|
| Well 1 | 4080360-01 | Water | 08/15/14 | 08/18/14 |
| MW-4 | 4080360-02 | Water | 08/15/14 | 08/18/14 |

Samples were received in good condition at 1.6 degrees C unless otherwise noted.

| Prism ID | Client ID | Parameter | Method | Result | | Units |
|------------|-----------|---------------------|--------------|--------|----|-------|
| 4080360-01 | Well 1 | Hexavalent Chromium | *SM3500-Cr B | 0.030 | HT | mg/L |
| 4080360-01 | Well 1 | Turbidity | *180.1 | 1500 | HT | NTU |
| 4080360-01 | Well 1 | Arsenic | *6010C | 0.051 | | mg/L |
| 4080360-01 | Well 1 | Barium | *6010C | 0.83 | | mg/L |
| 4080360-01 | Well 1 | Chromium | *6010C | 0.078 | | mg/L |
| 4080360-01 | Well 1 | Lead | *6010C | 0.030 | | mg/L |
| 4080360-02 | MW-4 | Turbidity | *180.1 | 310 | HT | NTU |

Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Sample Matrix: Water

Client Sample ID: Well 1
Prism Sample ID: 4080360-01
Prism Work Order: 4080360
Time Collected: 08/15/14 10:30
Time Submitted: 08/18/14 17:00

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|-----------|--------|-------|--------------|-----|-----------------|--------|--------------------|---------|----------|
|-----------|--------|-------|--------------|-----|-----------------|--------|--------------------|---------|----------|

General Chemistry Parameters

| | | | | | | | | | |
|---------------------|----------|------|-------|--------|----|--------------|---------------|-----|---------|
| Hexavalent Chromium | 0.030 HT | mg/L | 0.010 | 0.0026 | 1 | *SM3500-Cr B | 8/19/14 16:15 | CDE | P4H0343 |
| Turbidity | 1500 HT | NTU | 40 | 0.64 | 40 | *180.1 | 8/19/14 15:00 | CDE | P4H0340 |

Organochlorine Pesticides by GC/ECD

| | | | | | | | | | |
|--------------------|--------|------|-------|--------|---|-------|-------------|-----|---------|
| 4,4'-DDD | BRL Ab | ug/L | 0.062 | 0.0045 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| 4,4'-DDE | BRL | ug/L | 0.062 | 0.0048 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| 4,4'-DDT | BRL Ab | ug/L | 0.062 | 0.026 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Aldrin | BRL | ug/L | 0.062 | 0.013 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| alpha-BHC | BRL | ug/L | 0.062 | 0.0055 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| cis-Chlordane | BRL | ug/L | 0.062 | 0.0088 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| beta-BHC | BRL | ug/L | 0.062 | 0.0082 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Chlordane | BRL | ug/L | 0.62 | 0.20 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| delta-BHC | BRL | ug/L | 0.062 | 0.0041 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Dieldrin | BRL Ab | ug/L | 0.062 | 0.0058 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Endosulfan I | BRL | ug/L | 0.062 | 0.010 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Endosulfan II | BRL Ab | ug/L | 0.062 | 0.0059 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Endosulfan Sulfate | BRL Ab | ug/L | 0.062 | 0.0059 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Endrin | BRL Ab | ug/L | 0.062 | 0.0058 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Endrin Aldehyde | BRL Ab | ug/L | 0.062 | 0.0066 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Endrin Ketone | BRL Ab | ug/L | 0.062 | 0.0054 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| gamma-BHC | BRL | ug/L | 0.062 | 0.0061 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| trans-Chlordane | BRL | ug/L | 0.062 | 0.0075 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Heptachlor | BRL | ug/L | 0.062 | 0.0096 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Heptachlor Epoxide | BRL | ug/L | 0.062 | 0.0058 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Methoxychlor | BRL Ab | ug/L | 0.062 | 0.011 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |
| Toxaphene | BRL Aa | ug/L | 0.62 | 0.19 | 1 | 8081B | 9/3/14 2:41 | JMV | P4H0369 |

| Surrogate | Recovery | Control Limits |
|----------------------|----------|----------------|
| Decachlorobiphenyl | 72 % | 13-186 |
| Tetrachloro-m-xylene | 63 % | 40-134 |

Polychlorinated Biphenyls (PCBs) by GC/ECD

| | | | | | | | | | |
|--------------|-----|------|------|------|---|-------|---------------|-----|---------|
| Aroclor 1016 | BRL | ug/L | 0.56 | 0.15 | 1 | 8082A | 8/19/14 13:08 | JMV | P4H0279 |
| Aroclor 1221 | BRL | ug/L | 1.1 | 0.12 | 1 | 8082A | 8/19/14 13:08 | JMV | P4H0279 |
| Aroclor 1232 | BRL | ug/L | 0.56 | 0.18 | 1 | 8082A | 8/19/14 13:08 | JMV | P4H0279 |
| Aroclor 1242 | BRL | ug/L | 0.56 | 0.16 | 1 | 8082A | 8/19/14 13:08 | JMV | P4H0279 |
| Aroclor 1248 | BRL | ug/L | 0.56 | 0.16 | 1 | 8082A | 8/19/14 13:08 | JMV | P4H0279 |
| Aroclor 1254 | BRL | ug/L | 0.56 | 0.18 | 1 | 8082A | 8/19/14 13:08 | JMV | P4H0279 |
| Aroclor 1260 | BRL | ug/L | 0.56 | 0.21 | 1 | 8082A | 8/19/14 13:08 | JMV | P4H0279 |

| Surrogate | Recovery | Control Limits |
|----------------------|----------|----------------|
| Tetrachloro-m-xylene | 73 % | 30-161 |
| Decachlorobiphenyl | 35 % | 32-178 |

Semivolatile Organic Compounds by GC/MS

| | | | | | | | | | |
|------------------------|-----|------|----|-----|---|-------|---------------|----|---------|
| 1,2,4-Trichlorobenzene | BRL | ug/L | 10 | 2.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
|------------------------|-----|------|----|-----|---|-------|---------------|----|---------|

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Sample Matrix: Water

Client Sample ID: Well 1
Prism Sample ID: 4080360-01
Prism Work Order: 4080360
Time Collected: 08/15/14 10:30
Time Submitted: 08/18/14 17:00

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|-----------------------------|--------|-------|--------------|------|-----------------|--------|--------------------|---------|----------|
| 1,2-Dichlorobenzene | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 1,3-Dichlorobenzene | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 1,4-Dichlorobenzene | BRL | ug/L | 10 | 2.0 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 1-Methylnaphthalene | BRL | ug/L | 10 | 2.5 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2,4,5-Trichlorophenol | BRL | ug/L | 10 | 2.5 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2,4,6-Trichlorophenol | BRL | ug/L | 10 | 2.3 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2,4-Dichlorophenol | BRL | ug/L | 10 | 2.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2,4-Dimethylphenol | BRL | ug/L | 10 | 2.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2,4-Dinitrophenol | BRL | ug/L | 10 | 2.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2,4-Dinitrotoluene | BRL | ug/L | 10 | 0.95 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2,6-Dinitrotoluene | BRL | ug/L | 10 | 1.6 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2-Chloronaphthalene | BRL | ug/L | 10 | 2.3 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2-Chlorophenol | BRL | ug/L | 10 | 2.1 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2-Methylnaphthalene | BRL | ug/L | 10 | 2.6 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2-Methylphenol | BRL | ug/L | 10 | 2.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2-Nitroaniline | BRL | ug/L | 10 | 1.9 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 2-Nitrophenol | BRL | ug/L | 10 | 2.5 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 3,3'-Dichlorobenzidine | BRL | ug/L | 10 | 0.96 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 3/4-Methylphenol | BRL | ug/L | 10 | 2.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 3-Nitroaniline | BRL | ug/L | 10 | 1.3 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 4,6-Dinitro-2-methylphenol | BRL | ug/L | 10 | 2.7 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 4-Bromophenyl phenyl ether | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 4-Chloro-3-methylphenol | BRL | ug/L | 10 | 2.3 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 4-Chloroaniline | BRL | ug/L | 10 | 2.5 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 4-Chlorophenyl phenyl ether | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 4-Nitroaniline | BRL | ug/L | 10 | 0.91 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| 4-Nitrophenol | BRL | ug/L | 10 | 2.6 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Acenaphthene | BRL | ug/L | 10 | 2.1 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Acenaphthylene | BRL | ug/L | 10 | 2.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Aniline | BRL | ug/L | 10 | 2.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Anthracene | BRL | ug/L | 10 | 1.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Azobenzene | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Benzo(a)anthracene | BRL | ug/L | 10 | 0.95 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Benzo(a)pyrene | BRL | ug/L | 10 | 1.1 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Benzo(b)fluoranthene | BRL | ug/L | 10 | 1.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Benzo(g,h,i)perylene | BRL | ug/L | 10 | 2.1 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Benzo(k)fluoranthene | BRL | ug/L | 10 | 1.1 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Benzoic Acid | BRL | ug/L | 100 | 50 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Benzyl alcohol | BRL | ug/L | 10 | 2.1 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| bis(2-Chloroethoxy)methane | BRL | ug/L | 10 | 2.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Bis(2-Chloroethyl)ether | BRL | ug/L | 10 | 1.9 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Bis(2-chloroisopropyl)ether | BRL | ug/L | 10 | 2.3 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Bis(2-Ethylhexyl)phthalate | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Sample Matrix: Water

Client Sample ID: Well 1
Prism Sample ID: 4080360-01
Prism Work Order: 4080360
Time Collected: 08/15/14 10:30
Time Submitted: 08/18/14 17:00

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|----------------------------|--------|-------|--------------|------|-----------------|--------|--------------------|---------|----------|
| Butyl benzyl phthalate | BRL | ug/L | 10 | 1.5 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Chrysene | BRL | ug/L | 10 | 1.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Dibenzo(a,h)anthracene | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Dibenzofuran | BRL | ug/L | 10 | 2.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Diethyl phthalate | BRL | ug/L | 10 | 1.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Dimethyl phthalate | BRL | ug/L | 10 | 1.6 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Di-n-butyl phthalate | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Di-n-octyl phthalate | BRL | ug/L | 10 | 1.9 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Fluoranthene | BRL | ug/L | 10 | 0.94 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Fluorene | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Hexachlorobenzene | BRL | ug/L | 10 | 1.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Hexachlorobutadiene | BRL | ug/L | 10 | 2.3 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Hexachlorocyclopentadiene | BRL | ug/L | 10 | 1.8 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Hexachloroethane | BRL | ug/L | 10 | 1.9 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Indeno(1,2,3-cd)pyrene | BRL | ug/L | 10 | 1.6 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Isophorone | BRL | ug/L | 10 | 2.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Naphthalene | BRL | ug/L | 10 | 2.3 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Nitrobenzene | BRL | ug/L | 10 | 2.0 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| N-Nitroso-di-n-propylamine | BRL | ug/L | 10 | 2.3 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| N-Nitrosodiphenylamine | BRL | ug/L | 10 | 1.6 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Pentachlorophenol | BRL | ug/L | 10 | 1.6 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Phenanthrene | BRL | ug/L | 10 | 1.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Phenol | BRL | ug/L | 10 | 2.2 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |
| Pyrene | BRL | ug/L | 10 | 1.4 | 1 | 8270D | 8/20/14 17:14 | KC | P4H0313 |

| Surrogate | Recovery | Control Limits |
|----------------------|----------|----------------|
| 2,4,6-Tribromophenol | 100 % | 49-109 |
| 2-Fluorobiphenyl | 93 % | 55-96 |
| 2-Fluorophenol | 57 % | 27-74 |
| Nitrobenzene-d5 | 89 % | 53-99 |
| Phenol-d5 | 35 % | 11-52 |
| Terphenyl-d14 | 96 % | 42-133 |

Total Metals

| | | | | | | | | | |
|-----------------|--------------|-------------|---------------|----------------|----------|---------------|----------------------|------------|----------------|
| Mercury | BRL | mg/L | 0.00020 | 0.000012 | 1 | *7470A | 8/21/14 12:23 | BGM | P4H0355 |
| Arsenic | 0.051 | mg/L | 0.010 | 0.0012 | 1 | *6010C | 8/27/14 20:12 | BGM | P4H0393 |
| Barium | 0.83 | mg/L | 0.010 | 0.0025 | 1 | *6010C | 8/27/14 20:12 | BGM | P4H0393 |
| Cadmium | BRL | mg/L | 0.0010 | 0.000044 | 1 | *6010C | 8/27/14 20:12 | BGM | P4H0393 |
| Chromium | 0.078 | mg/L | 0.0050 | 0.00038 | 1 | *6010C | 8/27/14 20:12 | BGM | P4H0393 |
| Lead | 0.030 | mg/L | 0.0050 | 0.00057 | 1 | *6010C | 8/27/14 20:12 | BGM | P4H0393 |
| Selenium | BRL | mg/L | 0.020 | 0.0037 | 1 | *6010C | 8/27/14 20:12 | BGM | P4H0393 |
| Silver | BRL | mg/L | 0.0050 | 0.00024 | 1 | *6010C | 8/27/14 20:12 | BGM | P4H0393 |

Volatile Organic Compounds by GC/MS

| | | | | | | | | | |
|---------------------------|-----|------|------|------|---|-------|---------------|-----|---------|
| 1,1,1,2-Tetrachloroethane | BRL | ug/L | 0.50 | 0.15 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
|---------------------------|-----|------|------|------|---|-------|---------------|-----|---------|

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Falcon Engineering
 Attn: Josh Dunbar
 1210 Trinity Road
 Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Sample Matrix: Water

Client Sample ID: Well 1
 Prism Sample ID: 4080360-01
 Prism Work Order: 4080360
 Time Collected: 08/15/14 10:30
 Time Submitted: 08/18/14 17:00

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|-----------------------------|--------|-------|--------------|-------|-----------------|--------|--------------------|---------|----------|
| 1,1,1-Trichloroethane | BRL | ug/L | 0.50 | 0.063 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,1,2,2-Tetrachloroethane | BRL | ug/L | 0.50 | 0.071 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,1,2-Trichloroethane | BRL | ug/L | 0.50 | 0.17 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,1-Dichloroethane | BRL | ug/L | 0.50 | 0.096 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,1-Dichloroethylene | BRL | ug/L | 0.50 | 0.078 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,1-Dichloropropylene | BRL | ug/L | 0.50 | 0.061 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2,3-Trichlorobenzene | BRL | ug/L | 2.0 | 0.20 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2,3-Trichloropropane | BRL | ug/L | 1.0 | 0.081 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2,4-Trichlorobenzene | BRL | ug/L | 1.0 | 0.10 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2,4-Trimethylbenzene | BRL | ug/L | 0.50 | 0.048 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2-Dibromo-3-chloropropane | BRL | ug/L | 2.0 | 0.59 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2-Dibromoethane | BRL | ug/L | 0.50 | 0.14 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2-Dichlorobenzene | BRL | ug/L | 0.50 | 0.076 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2-Dichloroethane | BRL | ug/L | 0.50 | 0.14 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,2-Dichloropropane | BRL | ug/L | 0.50 | 0.13 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,3,5-Trimethylbenzene | BRL | ug/L | 0.50 | 0.057 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,3-Dichlorobenzene | BRL | ug/L | 0.50 | 0.074 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,3-Dichloropropane | BRL | ug/L | 0.50 | 0.11 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 1,4-Dichlorobenzene | BRL | ug/L | 0.50 | 0.068 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 2,2-Dichloropropane | BRL | ug/L | 2.0 | 0.11 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 2-Chloroethyl Vinyl Ether | BRL | ug/L | 5.0 | 0.22 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 2-Chlorotoluene | BRL | ug/L | 0.50 | 0.038 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 4-Chlorotoluene | BRL | ug/L | 0.50 | 0.053 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| 4-Isopropyltoluene | BRL | ug/L | 0.50 | 0.065 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Acetone | BRL | ug/L | 5.0 | 0.62 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Acrolein | BRL | ug/L | 20 | 1.1 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Acrylonitrile | BRL | ug/L | 20 | 0.86 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Benzene | BRL | ug/L | 0.50 | 0.072 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Bromobenzene | BRL | ug/L | 0.50 | 0.064 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Bromochloromethane | BRL | ug/L | 0.50 | 0.13 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Bromodichloromethane | BRL | ug/L | 0.50 | 0.062 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Bromoform | BRL | ug/L | 1.0 | 0.27 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Bromomethane | BRL | ug/L | 1.0 | 0.47 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Carbon disulfide | BRL | ug/L | 5.0 | 1.4 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Carbon Tetrachloride | BRL | ug/L | 0.50 | 0.12 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Chlorobenzene | BRL | ug/L | 0.50 | 0.061 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Chloroethane | BRL | ug/L | 0.50 | 0.13 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Chloroform | BRL | ug/L | 0.50 | 0.089 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Chloromethane | BRL | ug/L | 0.50 | 0.11 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| cis-1,2-Dichloroethylene | BRL | ug/L | 0.50 | 0.076 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| cis-1,3-Dichloropropylene | BRL | ug/L | 0.50 | 0.10 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Dibromochloromethane | BRL | ug/L | 0.50 | 0.30 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Dibromomethane | BRL | ug/L | 0.50 | 0.13 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |

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Falcon Engineering
 Attn: Josh Dunbar
 1210 Trinity Road
 Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Sample Matrix: Water

Client Sample ID: Well 1
 Prism Sample ID: 4080360-01
 Prism Work Order: 4080360
 Time Collected: 08/15/14 10:30
 Time Submitted: 08/18/14 17:00

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|----------------------------------|--------|-------|--------------|-------|-----------------|--------|--------------------|---------|----------|
| Dichlorodifluoromethane | BRL | ug/L | 1.0 | 0.11 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Ethylbenzene | BRL | ug/L | 0.50 | 0.067 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Hexachlorobutadiene | BRL | ug/L | 2.0 | 0.36 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Isopropyl Ether | BRL | ug/L | 0.50 | 0.043 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Isopropylbenzene (Cumene) | BRL | ug/L | 0.50 | 0.072 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| m,p-Xylenes | BRL | ug/L | 1.0 | 0.081 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Methyl Butyl Ketone (2-Hexanone) | BRL | ug/L | 5.0 | 0.19 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Methyl Ethyl Ketone (2-Butanone) | BRL | ug/L | 5.0 | 0.90 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Methyl Isobutyl Ketone | BRL | ug/L | 5.0 | 0.12 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Methylene Chloride | BRL | ug/L | 1.0 | 0.44 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Methyl-tert-Butyl Ether | BRL | ug/L | 0.50 | 0.070 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Naphthalene | BRL | ug/L | 1.0 | 0.098 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| n-Butylbenzene | BRL | ug/L | 1.0 | 0.11 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| n-Propylbenzene | BRL | ug/L | 0.50 | 0.060 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| o-Xylene | BRL | ug/L | 0.50 | 0.046 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| sec-Butylbenzene | BRL | ug/L | 0.50 | 0.087 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Styrene | BRL | ug/L | 0.50 | 0.047 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| tert-Butylbenzene | BRL | ug/L | 0.50 | 0.080 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Tetrachloroethylene | BRL | ug/L | 0.50 | 0.069 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Toluene | BRL | ug/L | 0.50 | 0.042 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| trans-1,2-Dichloroethylene | BRL | ug/L | 0.50 | 0.12 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| trans-1,3-Dichloropropylene | BRL | ug/L | 0.50 | 0.043 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Trichloroethylene | BRL | ug/L | 0.50 | 0.054 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Trichlorofluoromethane | BRL | ug/L | 0.50 | 0.088 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Vinyl acetate | BRL | ug/L | 2.0 | 0.10 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |
| Vinyl chloride | BRL | ug/L | 0.50 | 0.16 | 1 | 8260B | 8/20/14 19:30 | VHL | P4H0368 |

| Surrogate | Recovery | Control Limits |
|----------------------|----------|----------------|
| 4-Bromofluorobenzene | 99 % | 80-124 |
| Dibromofluoromethane | 121 % | 75-129 |
| Toluene-d8 | 111 % | 77-123 |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Sample Matrix: Water

Client Sample ID: MW-4
Prism Sample ID: 4080360-02
Prism Work Order: 4080360
Time Collected: 08/15/14 14:00
Time Submitted: 08/18/14 17:00

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|--|--------|-------|--------------|------|-----------------|--------|--------------------|---------|----------|
| General Chemistry Parameters | | | | | | | | | |
| Turbidity | 310 HT | NTU | 10 | 0.16 | 10 | *180.1 | 8/19/14 15:00 | CDE | P4H0340 |
| Semivolatile Organic Compounds by GC/MS | | | | | | | | | |
| 1,2,4-Trichlorobenzene | BRL | ug/L | 15 | 3.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 1,2-Dichlorobenzene | BRL | ug/L | 15 | 2.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 1,3-Dichlorobenzene | BRL | ug/L | 15 | 2.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 1,4-Dichlorobenzene | BRL | ug/L | 15 | 3.1 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 1-Methylnaphthalene | BRL | ug/L | 15 | 3.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2,4,5-Trichlorophenol | BRL | ug/L | 15 | 3.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2,4,6-Trichlorophenol | BRL | ug/L | 15 | 3.6 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2,4-Dichlorophenol | BRL | ug/L | 15 | 3.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2,4-Dimethylphenol | BRL | ug/L | 15 | 3.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2,4-Dinitrophenol | BRL | ug/L | 15 | 3.6 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2,4-Dinitrotoluene | BRL | ug/L | 15 | 1.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2,6-Dinitrotoluene | BRL | ug/L | 15 | 2.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2-Chloronaphthalene | BRL | ug/L | 15 | 3.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2-Chlorophenol | BRL | ug/L | 15 | 3.3 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2-Methylnaphthalene | BRL | ug/L | 15 | 4.0 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2-Methylphenol | BRL | ug/L | 15 | 3.7 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2-Nitroaniline | BRL | ug/L | 15 | 3.0 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 2-Nitrophenol | BRL | ug/L | 15 | 3.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 3,3'-Dichlorobenzidine | BRL | ug/L | 15 | 1.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 3/4-Methylphenol | BRL | ug/L | 15 | 3.6 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 3-Nitroaniline | BRL | ug/L | 15 | 2.0 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 4,6-Dinitro-2-methylphenol | BRL | ug/L | 15 | 4.1 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 4-Bromophenyl phenyl ether | BRL | ug/L | 15 | 2.7 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 4-Chloro-3-methylphenol | BRL | ug/L | 15 | 3.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 4-Chloroaniline | BRL | ug/L | 15 | 3.9 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 4-Chlorophenyl phenyl ether | BRL | ug/L | 15 | 2.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 4-Nitroaniline | BRL | ug/L | 15 | 1.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| 4-Nitrophenol | BRL | ug/L | 15 | 3.9 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Acenaphthene | BRL | ug/L | 15 | 3.3 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Acenaphthylene | BRL | ug/L | 15 | 3.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Aniline | BRL | ug/L | 15 | 3.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Anthracene | BRL | ug/L | 15 | 1.9 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Azobenzene | BRL | ug/L | 15 | 2.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Benzo(a)anthracene | BRL | ug/L | 15 | 1.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Benzo(a)pyrene | BRL | ug/L | 15 | 1.7 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Benzo(b)fluoranthene | BRL | ug/L | 15 | 2.1 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Benzo(g,h,i)perylene | BRL | ug/L | 15 | 3.3 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Benzo(k)fluoranthene | BRL | ug/L | 15 | 1.7 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Benzoic Acid | BRL | ug/L | 150 | 77 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Benzyl alcohol | BRL | ug/L | 15 | 3.2 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Sample Matrix: Water

Client Sample ID: MW-4
Prism Sample ID: 4080360-02
Prism Work Order: 4080360
Time Collected: 08/15/14 14:00
Time Submitted: 08/18/14 17:00

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|-----------------------------|--------|-------|--------------|-----|-----------------|--------|--------------------|---------|----------|
| bis(2-Chloroethoxy)methane | BRL | ug/L | 15 | 3.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Bis(2-Chloroethyl)ether | BRL | ug/L | 15 | 2.9 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Bis(2-chloroisopropyl)ether | BRL | ug/L | 15 | 3.6 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Bis(2-Ethylhexyl)phthalate | BRL | ug/L | 15 | 2.7 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Butyl benzyl phthalate | BRL | ug/L | 15 | 2.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Chrysene | BRL | ug/L | 15 | 1.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Dibenzo(a,h)anthracene | BRL | ug/L | 15 | 2.7 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Dibenzofuran | BRL | ug/L | 15 | 3.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Diethyl phthalate | BRL | ug/L | 15 | 2.2 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Dimethyl phthalate | BRL | ug/L | 15 | 2.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Di-n-butyl phthalate | BRL | ug/L | 15 | 2.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Di-n-octyl phthalate | BRL | ug/L | 15 | 2.9 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Fluoranthene | BRL | ug/L | 15 | 1.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Fluorene | BRL | ug/L | 15 | 2.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Hexachlorobenzene | BRL | ug/L | 15 | 2.2 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Hexachlorobutadiene | BRL | ug/L | 15 | 3.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Hexachlorocyclopentadiene | BRL | ug/L | 15 | 2.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Hexachloroethane | BRL | ug/L | 15 | 3.0 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Indeno(1,2,3-cd)pyrene | BRL | ug/L | 15 | 2.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Isophorone | BRL | ug/L | 15 | 3.7 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Naphthalene | BRL | ug/L | 15 | 3.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Nitrobenzene | BRL | ug/L | 15 | 3.0 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| N-Nitroso-di-n-propylamine | BRL | ug/L | 15 | 3.6 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| N-Nitrosodiphenylamine | BRL | ug/L | 15 | 2.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Pentachlorophenol | BRL | ug/L | 15 | 2.5 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Phenanthrene | BRL | ug/L | 15 | 1.8 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Phenol | BRL | ug/L | 15 | 3.4 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |
| Pyrene | BRL | ug/L | 15 | 2.1 | 1 | 8270D | 8/20/14 17:35 | KC | P4H0313 |

| Surrogate | Recovery | Control Limits |
|----------------------|----------|----------------|
| 2,4,6-Tribromophenol | 85 % | 49-109 |
| 2-Fluorobiphenyl | 74 % | 55-96 |
| 2-Fluorophenol | 53 % | 27-74 |
| Nitrobenzene-d5 | 70 % | 53-99 |
| Phenol-d5 | 37 % | 11-52 |
| Terphenyl-d14 | 88 % | 42-133 |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Volatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0368 - 5030B | | | | | | | | | | |
| Blank (P4H0368-BLK1) | | | | | | | | | | |
| Prepared & Analyzed: 08/20/14 | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | BRL | 0.50 | ug/L | | | | | | | |
| 1,1,1-Trichloroethane | BRL | 0.50 | ug/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | BRL | 0.50 | ug/L | | | | | | | |
| 1,1,2-Trichloroethane | BRL | 0.50 | ug/L | | | | | | | |
| 1,1-Dichloroethane | BRL | 0.50 | ug/L | | | | | | | |
| 1,1-Dichloroethylene | BRL | 0.50 | ug/L | | | | | | | |
| 1,1-Dichloropropylene | BRL | 0.50 | ug/L | | | | | | | |
| 1,2,3-Trichlorobenzene | BRL | 2.0 | ug/L | | | | | | | |
| 1,2,3-Trichloropropane | BRL | 1.0 | ug/L | | | | | | | |
| 1,2,4-Trichlorobenzene | BRL | 1.0 | ug/L | | | | | | | |
| 1,2,4-Trimethylbenzene | BRL | 0.50 | ug/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane | BRL | 2.0 | ug/L | | | | | | | |
| 1,2-Dibromoethane | BRL | 0.50 | ug/L | | | | | | | |
| 1,2-Dichlorobenzene | BRL | 0.50 | ug/L | | | | | | | |
| 1,2-Dichloroethane | BRL | 0.50 | ug/L | | | | | | | |
| 1,2-Dichloropropane | BRL | 0.50 | ug/L | | | | | | | |
| 1,3,5-Trimethylbenzene | BRL | 0.50 | ug/L | | | | | | | |
| 1,3-Dichlorobenzene | BRL | 0.50 | ug/L | | | | | | | |
| 1,3-Dichloropropane | BRL | 0.50 | ug/L | | | | | | | |
| 1,4-Dichlorobenzene | BRL | 0.50 | ug/L | | | | | | | |
| 2,2-Dichloropropane | BRL | 2.0 | ug/L | | | | | | | |
| 2-Chloroethyl Vinyl Ether | BRL | 5.0 | ug/L | | | | | | | |
| 2-Chlorotoluene | BRL | 0.50 | ug/L | | | | | | | |
| 4-Chlorotoluene | BRL | 0.50 | ug/L | | | | | | | |
| 4-Isopropyltoluene | BRL | 0.50 | ug/L | | | | | | | |
| Acetone | BRL | 5.0 | ug/L | | | | | | | |
| Acrolein | BRL | 20 | ug/L | | | | | | | |
| Acrylonitrile | BRL | 20 | ug/L | | | | | | | |
| Benzene | BRL | 0.50 | ug/L | | | | | | | |
| Bromobenzene | BRL | 0.50 | ug/L | | | | | | | |
| Bromochloromethane | BRL | 0.50 | ug/L | | | | | | | |
| Bromodichloromethane | BRL | 0.50 | ug/L | | | | | | | |
| Bromoform | BRL | 1.0 | ug/L | | | | | | | |
| Bromomethane | BRL | 1.0 | ug/L | | | | | | | |
| Carbon disulfide | BRL | 5.0 | ug/L | | | | | | | |
| Carbon Tetrachloride | BRL | 0.50 | ug/L | | | | | | | |
| Chlorobenzene | BRL | 0.50 | ug/L | | | | | | | |
| Chloroethane | BRL | 0.50 | ug/L | | | | | | | |
| Chloroform | BRL | 0.50 | ug/L | | | | | | | |
| Chloromethane | BRL | 0.50 | ug/L | | | | | | | |
| cis-1,2-Dichloroethylene | BRL | 0.50 | ug/L | | | | | | | |
| cis-1,3-Dichloropropylene | BRL | 0.50 | ug/L | | | | | | | |
| Dibromochloromethane | BRL | 0.50 | ug/L | | | | | | | |
| Dibromomethane | BRL | 0.50 | ug/L | | | | | | | |
| Dichlorodifluoromethane | BRL | 1.0 | ug/L | | | | | | | |
| Ethylbenzene | BRL | 0.50 | ug/L | | | | | | | |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Volatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0368 - 5030B | | | | | | | | | | |
| Blank (P4H0368-BLK1) | | | | | | | | | | |
| Prepared & Analyzed: 08/20/14 | | | | | | | | | | |
| Hexachlorobutadiene | BRL | 2.0 | ug/L | | | | | | | |
| Isopropyl Ether | BRL | 0.50 | ug/L | | | | | | | |
| Isopropylbenzene (Cumene) | BRL | 0.50 | ug/L | | | | | | | |
| m,p-Xylenes | BRL | 1.0 | ug/L | | | | | | | |
| Methyl Butyl Ketone (2-Hexanone) | BRL | 5.0 | ug/L | | | | | | | |
| Methyl Ethyl Ketone (2-Butanone) | BRL | 5.0 | ug/L | | | | | | | |
| Methyl Isobutyl Ketone | BRL | 5.0 | ug/L | | | | | | | |
| Methylene Chloride | BRL | 1.0 | ug/L | | | | | | | |
| Methyl-tert-Butyl Ether | BRL | 0.50 | ug/L | | | | | | | |
| Naphthalene | BRL | 1.0 | ug/L | | | | | | | |
| n-Butylbenzene | BRL | 1.0 | ug/L | | | | | | | |
| n-Propylbenzene | BRL | 0.50 | ug/L | | | | | | | |
| o-Xylene | BRL | 0.50 | ug/L | | | | | | | |
| sec-Butylbenzene | BRL | 0.50 | ug/L | | | | | | | |
| Styrene | BRL | 0.50 | ug/L | | | | | | | |
| tert-Butylbenzene | BRL | 0.50 | ug/L | | | | | | | |
| Tetrachloroethylene | BRL | 0.50 | ug/L | | | | | | | |
| Toluene | BRL | 0.50 | ug/L | | | | | | | |
| trans-1,2-Dichloroethylene | BRL | 0.50 | ug/L | | | | | | | |
| trans-1,3-Dichloropropylene | BRL | 0.50 | ug/L | | | | | | | |
| Trichloroethylene | BRL | 0.50 | ug/L | | | | | | | |
| Trichlorofluoromethane | BRL | 0.50 | ug/L | | | | | | | |
| Vinyl acetate | BRL | 2.0 | ug/L | | | | | | | |
| Vinyl chloride | BRL | 0.50 | ug/L | | | | | | | |
| Surrogate: 4-Bromofluorobenzene | 49.7 | | ug/L | 50.00 | | 99 | 80-124 | | | |
| Surrogate: Dibromofluoromethane | 60.6 | | ug/L | 50.00 | | 121 | 75-129 | | | |
| Surrogate: Toluene-d8 | 54.7 | | ug/L | 50.00 | | 109 | 77-123 | | | |

Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Volatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0368 - 5030B | | | | | | | | | | |
| LCS (P4H0368-BS1) | | | | | | | | | | |
| Prepared & Analyzed: 08/20/14 | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 20.8 | 0.50 | ug/L | 20.00 | | 104 | 79-134 | | | |
| 1,1,1-Trichloroethane | 25.0 | 0.50 | ug/L | 20.00 | | 125 | 75-136 | | | |
| 1,1,2,2-Tetrachloroethane | 18.2 | 0.50 | ug/L | 20.00 | | 91 | 62-127 | | | |
| 1,1,2-Trichloroethane | 22.1 | 0.50 | ug/L | 20.00 | | 111 | 70-140 | | | |
| 1,1-Dichloroethane | 23.4 | 0.50 | ug/L | 20.00 | | 117 | 78-130 | | | |
| 1,1-Dichloroethylene | 25.5 | 0.50 | ug/L | 20.00 | | 128 | 70-154 | | | |
| 1,1-Dichloropropylene | 25.1 | 0.50 | ug/L | 20.00 | | 126 | 71-136 | | | |
| 1,2,3-Trichlorobenzene | 21.2 | 2.0 | ug/L | 20.00 | | 106 | 58-144 | | | |
| 1,2,3-Trichloropropane | 17.7 | 1.0 | ug/L | 20.00 | | 89 | 71-127 | | | |
| 1,2,4-Trichlorobenzene | 19.4 | 1.0 | ug/L | 20.00 | | 97 | 66-139 | | | |
| 1,2,4-Trimethylbenzene | 19.5 | 0.50 | ug/L | 20.00 | | 97 | 75-133 | | | |
| 1,2-Dibromo-3-chloropropane | 18.5 | 2.0 | ug/L | 20.00 | | 92 | 63-134 | | | |
| 1,2-Dibromoethane | 19.6 | 0.50 | ug/L | 20.00 | | 98 | 77-135 | | | |
| 1,2-Dichlorobenzene | 19.3 | 0.50 | ug/L | 20.00 | | 97 | 78-128 | | | |
| 1,2-Dichloroethane | 23.0 | 0.50 | ug/L | 20.00 | | 115 | 68-131 | | | |
| 1,2-Dichloropropane | 21.7 | 0.50 | ug/L | 20.00 | | 109 | 77-130 | | | |
| 1,3,5-Trimethylbenzene | 19.5 | 0.50 | ug/L | 20.00 | | 98 | 75-131 | | | |
| 1,3-Dichlorobenzene | 19.2 | 0.50 | ug/L | 20.00 | | 96 | 77-125 | | | |
| 1,3-Dichloropropane | 19.9 | 0.50 | ug/L | 20.00 | | 99 | 76-132 | | | |
| 1,4-Dichlorobenzene | 19.4 | 0.50 | ug/L | 20.00 | | 97 | 75-126 | | | |
| 2,2-Dichloropropane | 26.0 | 2.0 | ug/L | 20.00 | | 130 | 29-149 | | | |
| 2-Chloroethyl Vinyl Ether | 21.3 | 5.0 | ug/L | 20.00 | | 107 | 34-144 | | | |
| 2-Chlorotoluene | 19.2 | 0.50 | ug/L | 20.00 | | 96 | 74-126 | | | |
| 4-Chlorotoluene | 19.0 | 0.50 | ug/L | 20.00 | | 95 | 78-129 | | | |
| 4-Isopropyltoluene | 20.2 | 0.50 | ug/L | 20.00 | | 101 | 69-132 | | | |
| Acetone | 39.7 | 5.0 | ug/L | 40.00 | | 99 | 40-166 | | | |
| Acrolein | 46.0 | 20 | ug/L | 40.00 | | 115 | 70-130 | | | |
| Acrylonitrile | 41.0 | 20 | ug/L | 40.00 | | 102 | 81-127 | | | |
| Benzene | 25.0 | 0.50 | ug/L | 20.00 | | 125 | 77-128 | | | |
| Bromobenzene | 18.1 | 0.50 | ug/L | 20.00 | | 91 | 78-129 | | | |
| Bromochloromethane | 22.2 | 0.50 | ug/L | 20.00 | | 111 | 78-135 | | | |
| Bromodichloromethane | 22.1 | 0.50 | ug/L | 20.00 | | 110 | 76-138 | | | |
| Bromoform | 19.5 | 1.0 | ug/L | 20.00 | | 98 | 71-135 | | | |
| Bromomethane | 16.1 | 1.0 | ug/L | 20.00 | | 80 | 41-168 | | | |
| Carbon disulfide | 24.4 | 5.0 | ug/L | 20.00 | | 122 | 59-135 | | | |
| Carbon Tetrachloride | 22.9 | 0.50 | ug/L | 20.00 | | 114 | 72-142 | | | |
| Chlorobenzene | 20.3 | 0.50 | ug/L | 20.00 | | 102 | 78-119 | | | |
| Chloroethane | 22.8 | 0.50 | ug/L | 20.00 | | 114 | 57-142 | | | |
| Chloroform | 23.0 | 0.50 | ug/L | 20.00 | | 115 | 77-130 | | | |
| Chloromethane | 20.0 | 0.50 | ug/L | 20.00 | | 100 | 47-145 | | | |
| cis-1,2-Dichloroethylene | 22.1 | 0.50 | ug/L | 20.00 | | 111 | 76-141 | | | |
| cis-1,3-Dichloropropylene | 22.0 | 0.50 | ug/L | 20.00 | | 110 | 65-140 | | | |
| Dibromochloromethane | 19.3 | 0.50 | ug/L | 20.00 | | 96 | 75-134 | | | |
| Dibromomethane | 22.4 | 0.50 | ug/L | 20.00 | | 112 | 76-138 | | | |
| Dichlorodifluoromethane | 28.2 | 1.0 | ug/L | 20.00 | | 141 | 28-163 | | | |
| Ethylbenzene | 20.5 | 0.50 | ug/L | 20.00 | | 102 | 80-127 | | | |

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Falcon Engineering
 Attn: Josh Dunbar
 1210 Trinity Road
 Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
 Time Submitted: 8/18/2014 5:00:00PM

Volatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0368 - 5030B | | | | | | | | | | |
| LCS (P4H0368-BS1) | | | | | | | | | | |
| Prepared & Analyzed: 08/20/14 | | | | | | | | | | |
| Hexachlorobutadiene | 20.8 | 2.0 | ug/L | 20.00 | | 104 | 61-134 | | | |
| Isopropyl Ether | 19.5 | 0.50 | ug/L | 20.00 | | 98 | 60-154 | | | |
| Isopropylbenzene (Cumene) | 20.1 | 0.50 | ug/L | 20.00 | | 100 | 70-130 | | | |
| m,p-Xylenes | 43.0 | 1.0 | ug/L | 40.00 | | 108 | 77-133 | | | |
| Methyl Butyl Ketone (2-Hexanone) | 18.7 | 5.0 | ug/L | 20.00 | | 94 | 64-137 | | | |
| Methyl Ethyl Ketone (2-Butanone) | 20.6 | 5.0 | ug/L | 20.00 | | 103 | 71-134 | | | |
| Methyl Isobutyl Ketone | 20.6 | 5.0 | ug/L | 20.00 | | 103 | 69-134 | | | |
| Methylene Chloride | 19.5 | 1.0 | ug/L | 20.00 | | 98 | 73-131 | | | |
| Methyl-tert-Butyl Ether | 20.0 | 0.50 | ug/L | 20.00 | | 100 | 68-135 | | | |
| Naphthalene | 19.6 | 1.0 | ug/L | 20.00 | | 98 | 64-136 | | | |
| n-Butylbenzene | 20.3 | 1.0 | ug/L | 20.00 | | 101 | 68-134 | | | |
| n-Propylbenzene | 20.1 | 0.50 | ug/L | 20.00 | | 100 | 72-132 | | | |
| o-Xylene | 20.8 | 0.50 | ug/L | 20.00 | | 104 | 78-128 | | | |
| sec-Butylbenzene | 20.0 | 0.50 | ug/L | 20.00 | | 100 | 71-131 | | | |
| Styrene | 21.9 | 0.50 | ug/L | 20.00 | | 110 | 78-129 | | | |
| tert-Butylbenzene | 19.9 | 0.50 | ug/L | 20.00 | | 99 | 70-132 | | | |
| Tetrachloroethylene | 23.4 | 0.50 | ug/L | 20.00 | | 117 | 80-129 | | | |
| Toluene | 23.2 | 0.50 | ug/L | 20.00 | | 116 | 76-131 | | | |
| trans-1,2-Dichloroethylene | 23.3 | 0.50 | ug/L | 20.00 | | 117 | 76-135 | | | |
| trans-1,3-Dichloropropylene | 22.0 | 0.50 | ug/L | 20.00 | | 110 | 67-140 | | | |
| Trichloroethylene | 24.9 | 0.50 | ug/L | 20.00 | | 124 | 77-133 | | | |
| Trichlorofluoromethane | 24.4 | 0.50 | ug/L | 20.00 | | 122 | 62-148 | | | |
| Vinyl acetate | 23.2 | 2.0 | ug/L | 20.00 | | 116 | 34-167 | | | |
| Vinyl chloride | 25.3 | 0.50 | ug/L | 20.00 | | 126 | 57-141 | | | |
| Surrogate: 4-Bromofluorobenzene | 47.5 | | ug/L | 50.00 | | 95 | 80-124 | | | |
| Surrogate: Dibromofluoromethane | 57.9 | | ug/L | 50.00 | | 116 | 75-129 | | | |
| Surrogate: Toluene-d8 | 53.3 | | ug/L | 50.00 | | 107 | 77-123 | | | |

Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360

Time Submitted: 8/18/2014 5:00:00PM

Volatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0368 - 5030B | | | | | | | | | | |
| LCS Dup (P4H0368-bsd1) | | | | | | | | | | |
| Prepared & Analyzed: 08/20/14 | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 20.1 | 0.50 | ug/L | 20.00 | | 101 | 79-134 | 3 | 20 | |
| 1,1,1-Trichloroethane | 23.1 | 0.50 | ug/L | 20.00 | | 116 | 75-136 | 8 | 20 | |
| 1,1,1,2,2-Tetrachloroethane | 18.6 | 0.50 | ug/L | 20.00 | | 93 | 62-127 | 2 | 20 | |
| 1,1,2-Trichloroethane | 22.3 | 0.50 | ug/L | 20.00 | | 112 | 70-140 | 0.8 | 20 | |
| 1,1-Dichloroethane | 22.0 | 0.50 | ug/L | 20.00 | | 110 | 78-130 | 6 | 20 | |
| 1,1-Dichloroethylene | 23.0 | 0.50 | ug/L | 20.00 | | 115 | 70-154 | 10 | 20 | |
| 1,1-Dichloropropylene | 23.2 | 0.50 | ug/L | 20.00 | | 116 | 71-136 | 8 | 20 | |
| 1,2,3-Trichlorobenzene | 18.8 | 2.0 | ug/L | 20.00 | | 94 | 58-144 | 12 | 20 | |
| 1,2,3-Trichloropropane | 18.4 | 1.0 | ug/L | 20.00 | | 92 | 71-127 | 4 | 20 | |
| 1,2,4-Trichlorobenzene | 18.2 | 1.0 | ug/L | 20.00 | | 91 | 66-139 | 6 | 20 | |
| 1,2,4-Trimethylbenzene | 18.6 | 0.50 | ug/L | 20.00 | | 93 | 75-133 | 4 | 20 | |
| 1,2-Dibromo-3-chloropropane | 18.7 | 2.0 | ug/L | 20.00 | | 93 | 63-134 | 1 | 20 | |
| 1,2-Dibromoethane | 19.8 | 0.50 | ug/L | 20.00 | | 99 | 77-135 | 0.7 | 20 | |
| 1,2-Dichlorobenzene | 18.8 | 0.50 | ug/L | 20.00 | | 94 | 78-128 | 3 | 20 | |
| 1,2-Dichloroethane | 22.6 | 0.50 | ug/L | 20.00 | | 113 | 68-131 | 2 | 20 | |
| 1,2-Dichloropropane | 21.0 | 0.50 | ug/L | 20.00 | | 105 | 77-130 | 3 | 20 | |
| 1,3,5-Trimethylbenzene | 18.8 | 0.50 | ug/L | 20.00 | | 94 | 75-131 | 4 | 20 | |
| 1,3-Dichlorobenzene | 18.5 | 0.50 | ug/L | 20.00 | | 93 | 77-125 | 4 | 20 | |
| 1,3-Dichloropropane | 19.8 | 0.50 | ug/L | 20.00 | | 99 | 76-132 | 0.3 | 20 | |
| 1,4-Dichlorobenzene | 18.7 | 0.50 | ug/L | 20.00 | | 94 | 75-126 | 3 | 20 | |
| 2,2-Dichloropropane | 23.9 | 2.0 | ug/L | 20.00 | | 119 | 29-149 | 9 | 20 | |
| 2-Chloroethyl Vinyl Ether | 22.0 | 5.0 | ug/L | 20.00 | | 110 | 34-144 | 3 | 20 | |
| 2-Chlorotoluene | 18.5 | 0.50 | ug/L | 20.00 | | 93 | 74-126 | 4 | 20 | |
| 4-Chlorotoluene | 18.4 | 0.50 | ug/L | 20.00 | | 92 | 78-129 | 3 | 20 | |
| 4-Isopropyltoluene | 19.2 | 0.50 | ug/L | 20.00 | | 96 | 69-132 | 5 | 20 | |
| Acetone | 43.2 | 5.0 | ug/L | 40.00 | | 108 | 40-166 | 8 | 20 | |
| Acrolein | 49.4 | 20 | ug/L | 40.00 | | 123 | 70-130 | 7 | 20 | |
| Acrylonitrile | 43.1 | 20 | ug/L | 40.00 | | 108 | 81-127 | 5 | 20 | |
| Benzene | 23.6 | 0.50 | ug/L | 20.00 | | 118 | 77-128 | 6 | 20 | |
| Bromobenzene | 18.0 | 0.50 | ug/L | 20.00 | | 90 | 78-129 | 0.8 | 20 | |
| Bromochloromethane | 22.2 | 0.50 | ug/L | 20.00 | | 111 | 78-135 | 0.1 | 20 | |
| Bromodichloromethane | 21.8 | 0.50 | ug/L | 20.00 | | 109 | 76-138 | 2 | 20 | |
| Bromoform | 19.6 | 1.0 | ug/L | 20.00 | | 98 | 71-135 | 0.2 | 20 | |
| Bromomethane | 15.8 | 1.0 | ug/L | 20.00 | | 79 | 41-168 | 2 | 20 | |
| Carbon disulfide | 22.2 | 5.0 | ug/L | 20.00 | | 111 | 59-135 | 9 | 20 | |
| Carbon Tetrachloride | 21.7 | 0.50 | ug/L | 20.00 | | 109 | 72-142 | 5 | 20 | |
| Chlorobenzene | 19.6 | 0.50 | ug/L | 20.00 | | 98 | 78-119 | 4 | 20 | |
| Chloroethane | 20.9 | 0.50 | ug/L | 20.00 | | 105 | 57-142 | 9 | 20 | |
| Chloroform | 21.9 | 0.50 | ug/L | 20.00 | | 109 | 77-130 | 5 | 20 | |
| Chloromethane | 21.0 | 0.50 | ug/L | 20.00 | | 105 | 47-145 | 5 | 20 | |
| cis-1,2-Dichloroethylene | 21.1 | 0.50 | ug/L | 20.00 | | 105 | 76-141 | 5 | 20 | |
| cis-1,3-Dichloropropylene | 21.4 | 0.50 | ug/L | 20.00 | | 107 | 65-140 | 3 | 20 | |
| Dibromochloromethane | 19.2 | 0.50 | ug/L | 20.00 | | 96 | 75-134 | 0.6 | 20 | |
| Dibromomethane | 22.5 | 0.50 | ug/L | 20.00 | | 112 | 76-138 | 0.6 | 20 | |
| Dichlorodifluoromethane | 25.8 | 1.0 | ug/L | 20.00 | | 129 | 28-163 | 9 | 20 | |
| Ethylbenzene | 19.5 | 0.50 | ug/L | 20.00 | | 97 | 80-127 | 5 | 20 | |

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Falcon Engineering
 Attn: Josh Dunbar
 1210 Trinity Road
 Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
 Time Submitted: 8/18/2014 5:00:00PM

Volatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0368 - 5030B | | | | | | | | | | |
| LCS Dup (P4H0368-BSD1) | | | | | | | | | | |
| Prepared & Analyzed: 08/20/14 | | | | | | | | | | |
| Hexachlorobutadiene | 19.5 | 2.0 | ug/L | 20.00 | | 97 | 61-134 | 7 | 20 | |
| Isopropyl Ether | 18.9 | 0.50 | ug/L | 20.00 | | 95 | 60-154 | 3 | 20 | |
| Isopropylbenzene (Cumene) | 19.4 | 0.50 | ug/L | 20.00 | | 97 | 70-130 | 3 | 20 | |
| m,p-Xylenes | 40.8 | 1.0 | ug/L | 40.00 | | 102 | 77-133 | 5 | 20 | |
| Methyl Butyl Ketone (2-Hexanone) | 19.8 | 5.0 | ug/L | 20.00 | | 99 | 64-137 | 5 | 20 | |
| Methyl Ethyl Ketone (2-Butanone) | 21.1 | 5.0 | ug/L | 20.00 | | 105 | 71-134 | 2 | 20 | |
| Methyl Isobutyl Ketone | 21.7 | 5.0 | ug/L | 20.00 | | 108 | 69-134 | 5 | 20 | |
| Methylene Chloride | 18.8 | 1.0 | ug/L | 20.00 | | 94 | 73-131 | 4 | 20 | |
| Methyl-tert-Butyl Ether | 19.9 | 0.50 | ug/L | 20.00 | | 99 | 68-135 | 0.3 | 20 | |
| Naphthalene | 18.9 | 1.0 | ug/L | 20.00 | | 94 | 64-136 | 4 | 20 | |
| n-Butylbenzene | 19.3 | 1.0 | ug/L | 20.00 | | 96 | 68-134 | 5 | 20 | |
| n-Propylbenzene | 19.4 | 0.50 | ug/L | 20.00 | | 97 | 72-132 | 4 | 20 | |
| o-Xylene | 19.9 | 0.50 | ug/L | 20.00 | | 100 | 78-128 | 4 | 20 | |
| sec-Butylbenzene | 19.1 | 0.50 | ug/L | 20.00 | | 96 | 71-131 | 5 | 20 | |
| Styrene | 21.0 | 0.50 | ug/L | 20.00 | | 105 | 78-129 | 5 | 20 | |
| tert-Butylbenzene | 19.0 | 0.50 | ug/L | 20.00 | | 95 | 70-132 | 5 | 20 | |
| Tetrachloroethylene | 21.7 | 0.50 | ug/L | 20.00 | | 109 | 80-129 | 7 | 20 | |
| Toluene | 22.1 | 0.50 | ug/L | 20.00 | | 111 | 76-131 | 5 | 20 | |
| trans-1,2-Dichloroethylene | 21.8 | 0.50 | ug/L | 20.00 | | 109 | 76-135 | 7 | 20 | |
| trans-1,3-Dichloropropylene | 21.9 | 0.50 | ug/L | 20.00 | | 110 | 67-140 | 0.2 | 20 | |
| Trichloroethylene | 23.6 | 0.50 | ug/L | 20.00 | | 118 | 77-133 | 5 | 20 | |
| Trichlorofluoromethane | 22.6 | 0.50 | ug/L | 20.00 | | 113 | 62-148 | 8 | 20 | |
| Vinyl acetate | 22.8 | 2.0 | ug/L | 20.00 | | 114 | 34-167 | 2 | 20 | |
| Vinyl chloride | 23.5 | 0.50 | ug/L | 20.00 | | 117 | 57-141 | 7 | 20 | |
| Surrogate: 4-Bromofluorobenzene | 48.8 | | ug/L | 50.00 | | 98 | 80-124 | | | |
| Surrogate: Dibromofluoromethane | 58.6 | | ug/L | 50.00 | | 117 | 75-129 | | | |
| Surrogate: Toluene-d8 | 53.9 | | ug/L | 50.00 | | 108 | 77-123 | | | |

Falcon Engineering
 Attn: Josh Dunbar
 1210 Trinity Road
 Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
 Time Submitted: 8/18/2014 5:00:00PM

Semivolatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0313 - 3510C MS | | | | | | | | | | |
| Blank (P4H0313-BLK1) | | | | | | | | | | |
| Prepared: 08/19/14 Analyzed: 08/20/14 | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | BRL | 10 | ug/L | | | | | | | |
| 1,2-Dichlorobenzene | BRL | 10 | ug/L | | | | | | | |
| 1,3-Dichlorobenzene | BRL | 10 | ug/L | | | | | | | |
| 1,4-Dichlorobenzene | BRL | 10 | ug/L | | | | | | | |
| 1-Methylnaphthalene | BRL | 10 | ug/L | | | | | | | |
| 2,4,5-Trichlorophenol | BRL | 10 | ug/L | | | | | | | |
| 2,4,6-Trichlorophenol | BRL | 10 | ug/L | | | | | | | |
| 2,4-Dichlorophenol | BRL | 10 | ug/L | | | | | | | |
| 2,4-Dimethylphenol | BRL | 10 | ug/L | | | | | | | |
| 2,4-Dinitrophenol | BRL | 10 | ug/L | | | | | | | |
| 2,4-Dinitrotoluene | BRL | 10 | ug/L | | | | | | | |
| 2,6-Dinitrotoluene | BRL | 10 | ug/L | | | | | | | |
| 2-Chloronaphthalene | BRL | 10 | ug/L | | | | | | | |
| 2-Chlorophenol | BRL | 10 | ug/L | | | | | | | |
| 2-Methylnaphthalene | BRL | 10 | ug/L | | | | | | | |
| 2-Methylphenol | BRL | 10 | ug/L | | | | | | | |
| 2-Nitroaniline | BRL | 10 | ug/L | | | | | | | |
| 2-Nitrophenol | BRL | 10 | ug/L | | | | | | | |
| 3,3'-Dichlorobenzidine | BRL | 10 | ug/L | | | | | | | |
| 3/4-Methylphenol | BRL | 10 | ug/L | | | | | | | |
| 3-Nitroaniline | BRL | 10 | ug/L | | | | | | | |
| 4,6-Dinitro-2-methylphenol | BRL | 10 | ug/L | | | | | | | |
| 4-Bromophenyl phenyl ether | BRL | 10 | ug/L | | | | | | | |
| 4-Chloro-3-methylphenol | BRL | 10 | ug/L | | | | | | | |
| 4-Chloroaniline | BRL | 10 | ug/L | | | | | | | |
| 4-Chlorophenyl phenyl ether | BRL | 10 | ug/L | | | | | | | |
| 4-Nitroaniline | BRL | 10 | ug/L | | | | | | | |
| 4-Nitrophenol | BRL | 10 | ug/L | | | | | | | |
| Acenaphthene | BRL | 10 | ug/L | | | | | | | |
| Acenaphthylene | BRL | 10 | ug/L | | | | | | | |
| Aniline | BRL | 10 | ug/L | | | | | | | |
| Anthracene | BRL | 10 | ug/L | | | | | | | |
| Azobenzene | BRL | 10 | ug/L | | | | | | | |
| Benzo(a)anthracene | BRL | 10 | ug/L | | | | | | | |
| Benzo(a)pyrene | BRL | 10 | ug/L | | | | | | | |
| Benzo(b)fluoranthene | BRL | 10 | ug/L | | | | | | | |
| Benzo(g,h,i)perylene | BRL | 10 | ug/L | | | | | | | |
| Benzo(k)fluoranthene | BRL | 10 | ug/L | | | | | | | |
| Benzoic Acid | BRL | 100 | ug/L | | | | | | | |
| Benzyl alcohol | BRL | 10 | ug/L | | | | | | | |
| bis(2-Chloroethoxy)methane | BRL | 10 | ug/L | | | | | | | |
| Bis(2-Chloroethyl)ether | BRL | 10 | ug/L | | | | | | | |
| Bis(2-chloroisopropyl)ether | BRL | 10 | ug/L | | | | | | | |
| Bis(2-Ethylhexyl)phthalate | BRL | 10 | ug/L | | | | | | | |
| Butyl benzyl phthalate | BRL | 10 | ug/L | | | | | | | |
| Chrysene | BRL | 10 | ug/L | | | | | | | |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Semivolatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch P4H0313 - 3510C MS

Blank (P4H0313-BLK1)

Prepared: 08/19/14 Analyzed: 08/20/14

| | | | | | | | | | | |
|--|------|----|------|-------|--|----|--------|--|--|--|
| Dibenzo(a,h)anthracene | BRL | 10 | ug/L | | | | | | | |
| Dibenzofuran | BRL | 10 | ug/L | | | | | | | |
| Diethyl phthalate | BRL | 10 | ug/L | | | | | | | |
| Dimethyl phthalate | BRL | 10 | ug/L | | | | | | | |
| Di-n-butyl phthalate | BRL | 10 | ug/L | | | | | | | |
| Di-n-octyl phthalate | BRL | 10 | ug/L | | | | | | | |
| Fluoranthene | BRL | 10 | ug/L | | | | | | | |
| Fluorene | BRL | 10 | ug/L | | | | | | | |
| Hexachlorobenzene | BRL | 10 | ug/L | | | | | | | |
| Hexachlorobutadiene | BRL | 10 | ug/L | | | | | | | |
| Hexachlorocyclopentadiene | BRL | 10 | ug/L | | | | | | | |
| Hexachloroethane | BRL | 10 | ug/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene | BRL | 10 | ug/L | | | | | | | |
| Isophorone | BRL | 10 | ug/L | | | | | | | |
| Naphthalene | BRL | 10 | ug/L | | | | | | | |
| Nitrobenzene | BRL | 10 | ug/L | | | | | | | |
| N-Nitroso-di-n-propylamine | BRL | 10 | ug/L | | | | | | | |
| N-Nitrosodiphenylamine | BRL | 10 | ug/L | | | | | | | |
| Pentachlorophenol | BRL | 10 | ug/L | | | | | | | |
| Phenanthrene | BRL | 10 | ug/L | | | | | | | |
| Phenol | BRL | 10 | ug/L | | | | | | | |
| Pyrene | BRL | 10 | ug/L | | | | | | | |
| <i>Surrogate: 2,4,6-Tribromophenol</i> | 86.0 | | ug/L | 100.0 | | 86 | 49-109 | | | |
| <i>Surrogate: 2-Fluorobiphenyl</i> | 40.2 | | ug/L | 50.00 | | 80 | 55-96 | | | |
| <i>Surrogate: 2-Fluorophenol</i> | 49.6 | | ug/L | 100.0 | | 50 | 27-74 | | | |
| <i>Surrogate: Nitrobenzene-d5</i> | 40.1 | | ug/L | 50.00 | | 80 | 53-99 | | | |
| <i>Surrogate: Phenol-d5</i> | 30.6 | | ug/L | 100.0 | | 31 | 11-52 | | | |
| <i>Surrogate: Terphenyl-d14</i> | 44.1 | | ug/L | 50.00 | | 88 | 42-133 | | | |

Falcon Engineering
 Attn: Josh Dunbar
 1210 Trinity Road
 Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
 Time Submitted: 8/18/2014 5:00:00PM

Semivolatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|---------------------------------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0313 - 3510C MS | | | | | | | | | | |
| LCS (P4H0313-BS1) | | | | | | | | | | |
| | | | | Prepared: 08/19/14 Analyzed: 08/20/14 | | | | | | |
| 1,2,4-Trichlorobenzene | 41.5 | 10 | ug/L | 50.00 | | 83 | 45-103 | | | |
| 1,2-Dichlorobenzene | 38.8 | 10 | ug/L | 50.00 | | 78 | 43-100 | | | |
| 1,3-Dichlorobenzene | 38.3 | 10 | ug/L | 50.00 | | 77 | 42-98 | | | |
| 1,4-Dichlorobenzene | 38.6 | 10 | ug/L | 50.00 | | 77 | 42-100 | | | |
| 1-Methylnaphthalene | 44.2 | 10 | ug/L | 50.00 | | 88 | 45-135 | | | |
| 2,4,5-Trichlorophenol | 47.2 | 10 | ug/L | 50.00 | | 94 | 66-120 | | | |
| 2,4,6-Trichlorophenol | 46.4 | 10 | ug/L | 50.00 | | 93 | 62-121 | | | |
| 2,4-Dichlorophenol | 42.9 | 10 | ug/L | 50.00 | | 86 | 58-113 | | | |
| 2,4-Dimethylphenol | 41.7 | 10 | ug/L | 50.00 | | 83 | 42-120 | | | |
| 2,4-Dinitrophenol | 43.7 | 10 | ug/L | 50.00 | | 87 | 27-129 | | | |
| 2,4-Dinitrotoluene | 51.9 | 10 | ug/L | 50.00 | | 104 | 62-136 | | | |
| 2,6-Dinitrotoluene | 51.8 | 10 | ug/L | 50.00 | | 104 | 64-129 | | | |
| 2-Chloronaphthalene | 54.6 | 10 | ug/L | 50.00 | | 109 | 38-141 | | | |
| 2-Chlorophenol | 39.9 | 10 | ug/L | 50.00 | | 80 | 49-107 | | | |
| 2-Methylnaphthalene | 44.6 | 10 | ug/L | 50.00 | | 89 | 55-112 | | | |
| 2-Methylphenol | 36.4 | 10 | ug/L | 50.00 | | 73 | 40-106 | | | |
| 2-Nitroaniline | 49.0 | 10 | ug/L | 50.00 | | 98 | 65-122 | | | |
| 2-Nitrophenol | 42.5 | 10 | ug/L | 50.00 | | 85 | 57-115 | | | |
| 3,3'-Dichlorobenzidine | 54.5 | 10 | ug/L | 50.00 | | 109 | 58-139 | | | |
| 3/4-Methylphenol | 33.5 | 10 | ug/L | 50.00 | | 67 | 34-101 | | | |
| 3-Nitroaniline | 49.5 | 10 | ug/L | 50.00 | | 99 | 52-155 | | | |
| 4,6-Dinitro-2-methylphenol | 51.4 | 10 | ug/L | 50.00 | | 103 | 49-138 | | | |
| 4-Bromophenyl phenyl ether | 49.4 | 10 | ug/L | 50.00 | | 99 | 63-135 | | | |
| 4-Chloro-3-methylphenol | 44.3 | 10 | ug/L | 50.00 | | 89 | 33-149 | | | |
| 4-Chloroaniline | 45.9 | 10 | ug/L | 50.00 | | 92 | 44-163 | | | |
| 4-Chlorophenyl phenyl ether | 47.6 | 10 | ug/L | 50.00 | | 95 | 63-129 | | | |
| 4-Nitroaniline | 51.2 | 10 | ug/L | 50.00 | | 102 | 63-147 | | | |
| 4-Nitrophenol | 19.6 | 10 | ug/L | 50.00 | | 39 | 10-77 | | | |
| Acenaphthene | 46.8 | 10 | ug/L | 50.00 | | 94 | 64-118 | | | |
| Acenaphthylene | 48.4 | 10 | ug/L | 50.00 | | 97 | 65-119 | | | |
| Aniline | 45.5 | 10 | ug/L | 50.00 | | 91 | 12-197 | | | |
| Anthracene | 53.9 | 10 | ug/L | 50.00 | | 108 | 69-134 | | | |
| Azobenzene | 47.2 | 10 | ug/L | 50.00 | | 94 | 56-129 | | | |
| Benzo(a)anthracene | 52.7 | 10 | ug/L | 50.00 | | 105 | 71-125 | | | |
| Benzo(a)pyrene | 55.1 | 10 | ug/L | 50.00 | | 110 | 67-135 | | | |
| Benzo(b)fluoranthene | 52.4 | 10 | ug/L | 50.00 | | 105 | 56-145 | | | |
| Benzo(g,h,i)perylene | 53.4 | 10 | ug/L | 50.00 | | 107 | 44-149 | | | |
| Benzo(k)fluoranthene | 52.1 | 10 | ug/L | 50.00 | | 104 | 65-138 | | | |
| Benzoic Acid | BRL | 100 | ug/L | 50.00 | | | 10-125 | | | A |
| Benzyl alcohol | 43.7 | 10 | ug/L | 50.00 | | 87 | 35-111 | | | |
| bis(2-Chloroethoxy)methane | 43.8 | 10 | ug/L | 50.00 | | 88 | 49-126 | | | |
| Bis(2-Chloroethyl)ether | 42.7 | 10 | ug/L | 50.00 | | 85 | 47-124 | | | |
| Bis(2-chloroisopropyl)ether | 41.6 | 10 | ug/L | 50.00 | | 83 | 42-126 | | | |
| Bis(2-Ethylhexyl)phthalate | 52.2 | 10 | ug/L | 50.00 | | 104 | 59-139 | | | |
| Butyl benzyl phthalate | 51.5 | 10 | ug/L | 50.00 | | 103 | 67-133 | | | |
| Chrysene | 53.1 | 10 | ug/L | 50.00 | | 106 | 64-124 | | | |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Semivolatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch P4H0313 - 3510C MS

LCS (P4H0313-BS1)

Prepared: 08/19/14 Analyzed: 08/20/14

| | | | | | | | | | | |
|---------------------------------|------|----|------|-------|--|-----|--------|--|--|----|
| Dibenzo(a,h)anthracene | 52.6 | 10 | ug/L | 50.00 | | 105 | 49-144 | | | |
| Dibenzofuran | 47.7 | 10 | ug/L | 50.00 | | 95 | 68-113 | | | |
| Diethyl phthalate | 50.6 | 10 | ug/L | 50.00 | | 101 | 70-124 | | | |
| Dimethyl phthalate | 50.5 | 10 | ug/L | 50.00 | | 101 | 71-117 | | | |
| Di-n-butyl phthalate | 51.5 | 10 | ug/L | 50.00 | | 103 | 69-128 | | | |
| Di-n-octyl phthalate | 51.3 | 10 | ug/L | 50.00 | | 103 | 52-150 | | | |
| Fluoranthene | 52.9 | 10 | ug/L | 50.00 | | 106 | 66-135 | | | |
| Fluorene | 50.6 | 10 | ug/L | 50.00 | | 101 | 67-124 | | | |
| Hexachlorobenzene | 51.1 | 10 | ug/L | 50.00 | | 102 | 62-124 | | | |
| Hexachlorobutadiene | 40.0 | 10 | ug/L | 50.00 | | 80 | 42-105 | | | |
| Hexachlorocyclopentadiene | 39.1 | 10 | ug/L | 50.00 | | 78 | 32-117 | | | |
| Hexachloroethane | 37.5 | 10 | ug/L | 50.00 | | 75 | 40-99 | | | |
| Indeno(1,2,3-cd)pyrene | 51.9 | 10 | ug/L | 50.00 | | 104 | 40-150 | | | |
| Isophorone | 49.3 | 10 | ug/L | 50.00 | | 99 | 54-125 | | | |
| Naphthalene | 43.4 | 10 | ug/L | 50.00 | | 87 | 54-111 | | | |
| Nitrobenzene | 45.6 | 10 | ug/L | 50.00 | | 91 | 51-117 | | | |
| N-Nitroso-di-n-propylamine | 42.4 | 10 | ug/L | 50.00 | | 85 | 55-115 | | | |
| N-Nitrosodiphenylamine | 49.1 | 10 | ug/L | 50.00 | | 98 | 70-152 | | | |
| Pentachlorophenol | 50.2 | 10 | ug/L | 50.00 | | 100 | 23-139 | | | |
| Phenanthrene | 51.8 | 10 | ug/L | 50.00 | | 104 | 68-128 | | | |
| Phenol | 17.6 | 10 | ug/L | 50.00 | | 35 | 12-58 | | | |
| Pyrene | 53.5 | 10 | ug/L | 50.00 | | 107 | 62-139 | | | |
| Surrogate: 2,4,6-Tribromophenol | 107 | | ug/L | 100.0 | | 107 | 49-109 | | | |
| Surrogate: 2-Fluorobiphenyl | 49.3 | | ug/L | 50.00 | | 99 | 55-96 | | | SR |
| Surrogate: 2-Fluorophenol | 59.1 | | ug/L | 100.0 | | 59 | 27-74 | | | |
| Surrogate: Nitrobenzene-d5 | 46.0 | | ug/L | 50.00 | | 92 | 53-99 | | | |
| Surrogate: Phenol-d5 | 36.4 | | ug/L | 100.0 | | 36 | 11-52 | | | |
| Surrogate: Terphenyl-d14 | 53.6 | | ug/L | 50.00 | | 107 | 42-133 | | | |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Semivolatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|---------------------------------------|---------------|--------|-------------|-----|-----------|-------|
| Batch P4H0313 - 3510C MS | | | | | | | | | | |
| LCS Dup (P4H0313-BSD1) | | | | | | | | | | |
| | | | | Prepared: 08/19/14 Analyzed: 08/20/14 | | | | | | |
| 1,2,4-Trichlorobenzene | 37.6 | 10 | ug/L | 50.00 | 75 | 45-103 | 10 | 20 | | |
| 1,2-Dichlorobenzene | 34.3 | 10 | ug/L | 50.00 | 69 | 43-100 | 12 | 20 | | |
| 1,3-Dichlorobenzene | 33.2 | 10 | ug/L | 50.00 | 66 | 42-98 | 14 | 20 | | |
| 1,4-Dichlorobenzene | 34.4 | 10 | ug/L | 50.00 | 69 | 42-100 | 12 | 20 | | |
| 1-Methylnaphthalene | 40.5 | 10 | ug/L | 50.00 | 81 | 45-135 | 9 | 20 | | |
| 2,4,5-Trichlorophenol | 42.4 | 10 | ug/L | 50.00 | 85 | 66-120 | 11 | 20 | | |
| 2,4,6-Trichlorophenol | 42.2 | 10 | ug/L | 50.00 | 84 | 62-121 | 9 | 20 | | |
| 2,4-Dichlorophenol | 39.0 | 10 | ug/L | 50.00 | 78 | 58-113 | 9 | 20 | | |
| 2,4-Dimethylphenol | 38.0 | 10 | ug/L | 50.00 | 76 | 42-120 | 9 | 20 | | |
| 2,4-Dinitrophenol | 42.0 | 10 | ug/L | 50.00 | 84 | 27-129 | 4 | 20 | | |
| 2,4-Dinitrotoluene | 48.1 | 10 | ug/L | 50.00 | 96 | 62-136 | 8 | 20 | | |
| 2,6-Dinitrotoluene | 47.4 | 10 | ug/L | 50.00 | 95 | 64-129 | 9 | 20 | | |
| 2-Chloronaphthalene | 49.0 | 10 | ug/L | 50.00 | 98 | 38-141 | 11 | 20 | | |
| 2-Chlorophenol | 35.4 | 10 | ug/L | 50.00 | 71 | 49-107 | 12 | 20 | | |
| 2-Methylnaphthalene | 40.3 | 10 | ug/L | 50.00 | 81 | 55-112 | 10 | 20 | | |
| 2-Methylphenol | 32.8 | 10 | ug/L | 50.00 | 66 | 40-106 | 10 | 20 | | |
| 2-Nitroaniline | 45.0 | 10 | ug/L | 50.00 | 90 | 65-122 | 9 | 20 | | |
| 2-Nitrophenol | 39.5 | 10 | ug/L | 50.00 | 79 | 57-115 | 7 | 20 | | |
| 3,3'-Dichlorobenzidine | 50.4 | 10 | ug/L | 50.00 | 101 | 58-139 | 8 | 20 | | |
| 3/4-Methylphenol | 30.3 | 10 | ug/L | 50.00 | 61 | 34-101 | 10 | 20 | | |
| 3-Nitroaniline | 45.5 | 10 | ug/L | 50.00 | 91 | 52-155 | 8 | 20 | | |
| 4,6-Dinitro-2-methylphenol | 48.4 | 10 | ug/L | 50.00 | 97 | 49-138 | 6 | 20 | | |
| 4-Bromophenyl phenyl ether | 45.0 | 10 | ug/L | 50.00 | 90 | 63-135 | 9 | 20 | | |
| 4-Chloro-3-methylphenol | 40.9 | 10 | ug/L | 50.00 | 82 | 33-149 | 8 | 20 | | |
| 4-Chloroaniline | 44.0 | 10 | ug/L | 50.00 | 88 | 44-163 | 4 | 20 | | |
| 4-Chlorophenyl phenyl ether | 43.0 | 10 | ug/L | 50.00 | 86 | 63-129 | 10 | 20 | | |
| 4-Nitroaniline | 47.2 | 10 | ug/L | 50.00 | 94 | 63-147 | 8 | 20 | | |
| 4-Nitrophenol | 18.2 | 10 | ug/L | 50.00 | 36 | 10-77 | 7 | 20 | | |
| Acenaphthene | 42.6 | 10 | ug/L | 50.00 | 85 | 64-118 | 9 | 20 | | |
| Acenaphthylene | 43.6 | 10 | ug/L | 50.00 | 87 | 65-119 | 10 | 20 | | |
| Aniline | 42.1 | 10 | ug/L | 50.00 | 84 | 12-197 | 8 | 20 | | |
| Anthracene | 49.9 | 10 | ug/L | 50.00 | 100 | 69-134 | 8 | 20 | | |
| Azobenzene | 42.6 | 10 | ug/L | 50.00 | 85 | 56-129 | 10 | 20 | | |
| Benzo(a)anthracene | 48.9 | 10 | ug/L | 50.00 | 98 | 71-125 | 8 | 20 | | |
| Benzo(a)pyrene | 50.9 | 10 | ug/L | 50.00 | 102 | 67-135 | 8 | 20 | | |
| Benzo(b)fluoranthene | 48.3 | 10 | ug/L | 50.00 | 97 | 56-145 | 8 | 20 | | |
| Benzo(g,h,i)perylene | 49.3 | 10 | ug/L | 50.00 | 99 | 44-149 | 8 | 20 | | |
| Benzo(k)fluoranthene | 48.4 | 10 | ug/L | 50.00 | 97 | 65-138 | 7 | 20 | | |
| Benzoic Acid | BRL | 100 | ug/L | 50.00 | | 10-125 | | 20 | | A |
| Benzyl alcohol | 39.1 | 10 | ug/L | 50.00 | 78 | 35-111 | 11 | 20 | | |
| bis(2-Chloroethoxy)methane | 39.9 | 10 | ug/L | 50.00 | 80 | 49-126 | 9 | 20 | | |
| Bis(2-Chloroethyl)ether | 38.2 | 10 | ug/L | 50.00 | 76 | 47-124 | 11 | 20 | | |
| Bis(2-chloroisopropyl)ether | 37.2 | 10 | ug/L | 50.00 | 74 | 42-126 | 11 | 20 | | |
| Bis(2-Ethylhexyl)phthalate | 48.3 | 10 | ug/L | 50.00 | 97 | 59-139 | 8 | 20 | | |
| Butyl benzyl phthalate | 47.4 | 10 | ug/L | 50.00 | 95 | 67-133 | 8 | 20 | | |
| Chrysene | 48.3 | 10 | ug/L | 50.00 | 97 | 64-124 | 10 | 20 | | |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Semivolatile Organic Compounds by GC/MS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|---------------------------------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0313 - 3510C MS | | | | | | | | | | |
| LCS Dup (P4H0313-BSD1) | | | | | | | | | | |
| | | | | Prepared: 08/19/14 Analyzed: 08/20/14 | | | | | | |
| Dibenzo(a,h)anthracene | 48.8 | 10 | ug/L | 50.00 | | 98 | 49-144 | 7 | 20 | |
| Dibenzofuran | 43.4 | 10 | ug/L | 50.00 | | 87 | 68-113 | 9 | 20 | |
| Diethyl phthalate | 45.9 | 10 | ug/L | 50.00 | | 92 | 70-124 | 10 | 20 | |
| Dimethyl phthalate | 46.1 | 10 | ug/L | 50.00 | | 92 | 71-117 | 9 | 20 | |
| Di-n-butyl phthalate | 47.8 | 10 | ug/L | 50.00 | | 96 | 69-128 | 7 | 20 | |
| Di-n-octyl phthalate | 47.3 | 10 | ug/L | 50.00 | | 95 | 52-150 | 8 | 20 | |
| Fluoranthene | 48.5 | 10 | ug/L | 50.00 | | 97 | 66-135 | 9 | 20 | |
| Fluorene | 45.4 | 10 | ug/L | 50.00 | | 91 | 67-124 | 11 | 20 | |
| Hexachlorobenzene | 46.6 | 10 | ug/L | 50.00 | | 93 | 62-124 | 9 | 20 | |
| Hexachlorobutadiene | 36.4 | 10 | ug/L | 50.00 | | 73 | 42-105 | 9 | 20 | |
| Hexachlorocyclopentadiene | 35.7 | 10 | ug/L | 50.00 | | 71 | 32-117 | 9 | 20 | |
| Hexachloroethane | 33.2 | 10 | ug/L | 50.00 | | 66 | 40-99 | 12 | 20 | |
| Indeno(1,2,3-cd)pyrene | 48.8 | 10 | ug/L | 50.00 | | 98 | 40-150 | 6 | 20 | |
| Isophorone | 45.4 | 10 | ug/L | 50.00 | | 91 | 54-125 | 8 | 20 | |
| Naphthalene | 39.5 | 10 | ug/L | 50.00 | | 79 | 54-111 | 9 | 20 | |
| Nitrobenzene | 41.7 | 10 | ug/L | 50.00 | | 83 | 51-117 | 9 | 20 | |
| N-Nitroso-di-n-propylamine | 37.9 | 10 | ug/L | 50.00 | | 76 | 55-115 | 11 | 20 | |
| N-Nitrosodiphenylamine | 45.2 | 10 | ug/L | 50.00 | | 90 | 70-152 | 8 | 20 | |
| Pentachlorophenol | 46.6 | 10 | ug/L | 50.00 | | 93 | 23-139 | 7 | 20 | |
| Phenanthrene | 47.8 | 10 | ug/L | 50.00 | | 96 | 68-128 | 8 | 20 | |
| Phenol | 15.5 | 10 | ug/L | 50.00 | | 31 | 12-58 | 13 | 20 | |
| Pyrene | 48.9 | 10 | ug/L | 50.00 | | 98 | 62-139 | 9 | 20 | |
| Surrogate: 2,4,6-Tribromophenol | 91.8 | | ug/L | 100.0 | | 92 | 49-109 | | | |
| Surrogate: 2-Fluorobiphenyl | 41.1 | | ug/L | 50.00 | | 82 | 55-96 | | | |
| Surrogate: 2-Fluorophenol | 48.6 | | ug/L | 100.0 | | 49 | 27-74 | | | |
| Surrogate: Nitrobenzene-d5 | 39.3 | | ug/L | 50.00 | | 79 | 53-99 | | | |
| Surrogate: Phenol-d5 | 29.6 | | ug/L | 100.0 | | 30 | 11-52 | | | |
| Surrogate: Terphenyl-d14 | 46.8 | | ug/L | 50.00 | | 94 | 42-133 | | | |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Organochlorine Pesticides by GC/ECD - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch P4H0369 - 3510C GC

Blank (P4H0369-BLK1)

Prepared: 08/21/14 Analyzed: 09/02/14

| | | | | | | | | | | |
|--|-------|-------|------|-------|--|-----|--------|--|--|--|
| 4,4'-DDD | BRL | 0.050 | ug/L | | | | | | | |
| 4,4'-DDE | BRL | 0.050 | ug/L | | | | | | | |
| 4,4'-DDT | BRL | 0.050 | ug/L | | | | | | | |
| Aldrin | BRL | 0.050 | ug/L | | | | | | | |
| alpha-BHC | BRL | 0.050 | ug/L | | | | | | | |
| cis-Chlordane | BRL | 0.050 | ug/L | | | | | | | |
| beta-BHC | BRL | 0.050 | ug/L | | | | | | | |
| Chlordane | BRL | 0.50 | ug/L | | | | | | | |
| delta-BHC | BRL | 0.050 | ug/L | | | | | | | |
| Dieldrin | BRL | 0.050 | ug/L | | | | | | | |
| Endosulfan I | BRL | 0.050 | ug/L | | | | | | | |
| Endosulfan II | BRL | 0.050 | ug/L | | | | | | | |
| Endosulfan Sulfate | BRL | 0.050 | ug/L | | | | | | | |
| Endrin | BRL | 0.050 | ug/L | | | | | | | |
| Endrin Aldehyde | BRL | 0.050 | ug/L | | | | | | | |
| Endrin Ketone | BRL | 0.050 | ug/L | | | | | | | |
| gamma-BHC | BRL | 0.050 | ug/L | | | | | | | |
| trans-Chlordane | BRL | 0.050 | ug/L | | | | | | | |
| Heptachlor | BRL | 0.050 | ug/L | | | | | | | |
| Heptachlor Epoxide | BRL | 0.050 | ug/L | | | | | | | |
| Methoxychlor | BRL | 0.050 | ug/L | | | | | | | |
| Toxaphene | BRL | 0.50 | ug/L | | | | | | | |
| <i>Surrogate: Decachlorobiphenyl</i> | 1.05 | | ug/L | 1.000 | | 105 | 13-186 | | | |
| <i>Surrogate: Tetrachloro-m-xylene</i> | 0.680 | | ug/L | 1.000 | | 68 | 40-134 | | | |

LCS (P4H0369-BS1)

Prepared: 08/21/14 Analyzed: 09/02/14

| | | | | | | | | | | |
|--------------------|-------|-------|------|-------|--|-----|--------|--|--|--|
| 4,4'-DDD | 0.940 | 0.050 | ug/L | 1.000 | | 94 | 66-138 | | | |
| 4,4'-DDE | 0.810 | 0.050 | ug/L | 1.000 | | 81 | 67-127 | | | |
| 4,4'-DDT | 0.970 | 0.050 | ug/L | 1.000 | | 97 | 66-142 | | | |
| Aldrin | 0.810 | 0.050 | ug/L | 1.000 | | 81 | 62-124 | | | |
| alpha-BHC | 0.830 | 0.050 | ug/L | 1.000 | | 83 | 63-125 | | | |
| cis-Chlordane | 0.820 | 0.050 | ug/L | 1.000 | | 82 | 68-126 | | | |
| beta-BHC | 0.820 | 0.050 | ug/L | 1.000 | | 82 | 65-137 | | | |
| delta-BHC | 0.830 | 0.050 | ug/L | 1.000 | | 83 | 65-132 | | | |
| Dieldrin | 0.900 | 0.050 | ug/L | 1.000 | | 90 | 69-130 | | | |
| Endosulfan I | 0.810 | 0.050 | ug/L | 1.000 | | 81 | 71-129 | | | |
| Endosulfan II | 0.830 | 0.050 | ug/L | 1.000 | | 83 | 73-135 | | | |
| Endosulfan Sulfate | 1.01 | 0.050 | ug/L | 1.000 | | 101 | 72-137 | | | |
| Endrin | 0.900 | 0.050 | ug/L | 1.000 | | 90 | 69-144 | | | |
| Endrin Aldehyde | 0.940 | 0.050 | ug/L | 1.000 | | 94 | 68-139 | | | |
| Endrin Ketone | 0.850 | 0.050 | ug/L | 1.000 | | 85 | 68-150 | | | |
| gamma-BHC | 0.840 | 0.050 | ug/L | 1.000 | | 84 | 66-129 | | | |
| trans-Chlordane | 0.820 | 0.050 | ug/L | 1.000 | | 82 | 66-126 | | | |
| Heptachlor | 0.880 | 0.050 | ug/L | 1.000 | | 88 | 61-136 | | | |
| Heptachlor Epoxide | 0.840 | 0.050 | ug/L | 1.000 | | 84 | 69-131 | | | |
| Methoxychlor | 1.15 | 0.050 | ug/L | 1.000 | | 115 | 70-157 | | | |

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Falcon Engineering
 Attn: Josh Dunbar
 1210 Trinity Road
 Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
 Time Submitted: 8/18/2014 5:00:00PM

Organochlorine Pesticides by GC/ECD - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|---------------------------------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0369 - 3510C GC | | | | | | | | | | |
| LCS (P4H0369-BS1) | | | | Prepared: 08/21/14 Analyzed: 09/02/14 | | | | | | |
| Surrogate: Decachlorobiphenyl | 1.13 | | ug/L | 1.000 | | 113 | 13-186 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.710 | | ug/L | 1.000 | | 71 | 40-134 | | | |
| LCS (P4H0369-BS2) | | | | Prepared: 08/21/14 Analyzed: 09/02/14 | | | | | | |
| Chlordane | 10.0 | 0.50 | ug/L | 10.00 | | 100 | 50-150 | | | |
| Surrogate: Decachlorobiphenyl | 1.23 | | ug/L | 1.000 | | 123 | 13-186 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.750 | | ug/L | 1.000 | | 75 | 40-134 | | | |
| LCS (P4H0369-BS3) | | | | Prepared: 08/21/14 Analyzed: 09/03/14 | | | | | | |
| Toxaphene | 9.70 | 0.50 | ug/L | 10.00 | | 97 | 50-150 | | | |
| Surrogate: Decachlorobiphenyl | 1.07 | | ug/L | 1.000 | | 107 | 13-186 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.680 | | ug/L | 1.000 | | 68 | 40-134 | | | |
| LCS Dup (P4H0369-BSD1) | | | | Prepared: 08/21/14 Analyzed: 09/02/14 | | | | | | |
| 4,4'-DDD | 0.970 | 0.050 | ug/L | 1.000 | | 97 | 66-138 | 3 | 20 | |
| 4,4'-DDE | 1.03 | 0.050 | ug/L | 1.000 | | 103 | 67-127 | 24 | 20 | LCD2 |
| 4,4'-DDT | 0.990 | 0.050 | ug/L | 1.000 | | 99 | 66-142 | 2 | 20 | |
| Aldrin | 0.860 | 0.050 | ug/L | 1.000 | | 86 | 62-124 | 6 | 20 | |
| alpha-BHC | 0.910 | 0.050 | ug/L | 1.000 | | 91 | 63-125 | 9 | 20 | |
| cis-Chlordane | 0.850 | 0.050 | ug/L | 1.000 | | 85 | 68-126 | 4 | 20 | |
| beta-BHC | 0.850 | 0.050 | ug/L | 1.000 | | 85 | 65-137 | 4 | 20 | |
| delta-BHC | 0.870 | 0.050 | ug/L | 1.000 | | 87 | 65-132 | 5 | 20 | |
| Dieldrin | 1.04 | 0.050 | ug/L | 1.000 | | 104 | 69-130 | 14 | 20 | |
| Endosulfan I | 0.850 | 0.050 | ug/L | 1.000 | | 85 | 71-129 | 5 | 20 | |
| Endosulfan II | 0.830 | 0.050 | ug/L | 1.000 | | 83 | 73-135 | 0 | 20 | |
| Endosulfan Sulfate | 1.04 | 0.050 | ug/L | 1.000 | | 104 | 72-137 | 3 | 20 | |
| Endrin | 0.940 | 0.050 | ug/L | 1.000 | | 94 | 69-144 | 4 | 20 | |
| Endrin Aldehyde | 0.900 | 0.050 | ug/L | 1.000 | | 90 | 68-139 | 4 | 20 | |
| Endrin Ketone | 0.960 | 0.050 | ug/L | 1.000 | | 96 | 68-150 | 12 | 20 | |
| gamma-BHC | 0.910 | 0.050 | ug/L | 1.000 | | 91 | 66-129 | 8 | 20 | |
| trans-Chlordane | 0.850 | 0.050 | ug/L | 1.000 | | 85 | 66-126 | 4 | 20 | |
| Heptachlor | 0.940 | 0.050 | ug/L | 1.000 | | 94 | 61-136 | 7 | 20 | |
| Heptachlor Epoxide | 0.890 | 0.050 | ug/L | 1.000 | | 89 | 69-131 | 6 | 20 | |
| Methoxychlor | 1.26 | 0.050 | ug/L | 1.000 | | 126 | 70-157 | 9 | 20 | |
| Surrogate: Decachlorobiphenyl | 1.14 | | ug/L | 1.000 | | 114 | 13-186 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.740 | | ug/L | 1.000 | | 74 | 40-134 | | | |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Organochlorine Pesticides by GC/ECD - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch P4H0369 - 3510C GC

| Matrix Spike (P4H0369-MS1) | Source: 4080360-01 | | | Prepared: 08/21/14 | | Analyzed: 09/03/14 | | | | |
|---------------------------------|--------------------|------|------|--------------------|-----|--------------------|--------|--|--|--|
| 4,4'-DDD | 2.40 | 0.12 | ug/L | 2.500 | BRL | 96 | 17-160 | | | |
| 4,4'-DDE | 2.00 | 0.12 | ug/L | 2.500 | BRL | 80 | 10-158 | | | |
| 4,4'-DDT | 2.60 | 0.12 | ug/L | 2.500 | BRL | 104 | 15-171 | | | |
| Aldrin | 2.18 | 0.12 | ug/L | 2.500 | BRL | 87 | 24-142 | | | |
| alpha-BHC | 2.20 | 0.12 | ug/L | 2.500 | BRL | 88 | 52-130 | | | |
| cis-Chlordane | 2.10 | 0.12 | ug/L | 2.500 | BRL | 84 | 18-147 | | | |
| beta-BHC | 2.12 | 0.12 | ug/L | 2.500 | BRL | 85 | 31-166 | | | |
| delta-BHC | 2.18 | 0.12 | ug/L | 2.500 | BRL | 87 | 20-171 | | | |
| Dieldrin | 2.40 | 0.12 | ug/L | 2.500 | BRL | 96 | 27-148 | | | |
| Endosulfan I | 2.12 | 0.12 | ug/L | 2.500 | BRL | 85 | 40-141 | | | |
| Endosulfan II | 2.18 | 0.12 | ug/L | 2.500 | BRL | 87 | 43-146 | | | |
| Endosulfan Sulfate | 2.72 | 0.12 | ug/L | 2.500 | BRL | 109 | 37-153 | | | |
| Endrin | 2.42 | 0.12 | ug/L | 2.500 | BRL | 97 | 35-165 | | | |
| Endrin Aldehyde | 2.18 | 0.12 | ug/L | 2.500 | BRL | 87 | 15-165 | | | |
| Endrin Ketone | 2.30 | 0.12 | ug/L | 2.500 | BRL | 92 | 36-172 | | | |
| gamma-BHC | 2.22 | 0.12 | ug/L | 2.500 | BRL | 89 | 45-150 | | | |
| trans-Chlordane | 2.15 | 0.12 | ug/L | 2.500 | BRL | 86 | 35-136 | | | |
| Heptachlor | 2.38 | 0.12 | ug/L | 2.500 | BRL | 95 | 38-150 | | | |
| Heptachlor Epoxide | 2.38 | 0.12 | ug/L | 2.500 | BRL | 95 | 40-141 | | | |
| Methoxychlor | 3.12 | 0.12 | ug/L | 2.500 | BRL | 125 | 37-187 | | | |
| Surrogate: Decachlorobiphenyl | 2.38 | | ug/L | 2.500 | | 95 | 13-186 | | | |
| Surrogate: Tetrachloro-m-xylene | 1.62 | | ug/L | 2.500 | | 65 | 40-134 | | | |

| Matrix Spike Dup (P4H0369-MSD1) | Source: 4080360-01 | | | Prepared: 08/21/14 | | Analyzed: 09/03/14 | | | | |
|---------------------------------|--------------------|------|------|--------------------|-----|--------------------|--------|---|----|--|
| 4,4'-DDD | 2.42 | 0.12 | ug/L | 2.500 | BRL | 97 | 17-160 | 1 | 29 | |
| 4,4'-DDE | 2.00 | 0.12 | ug/L | 2.500 | BRL | 80 | 10-158 | 0 | 38 | |
| 4,4'-DDT | 2.55 | 0.12 | ug/L | 2.500 | BRL | 102 | 15-171 | 2 | 30 | |
| Aldrin | 2.02 | 0.12 | ug/L | 2.500 | BRL | 81 | 24-142 | 7 | 35 | |
| alpha-BHC | 2.05 | 0.12 | ug/L | 2.500 | BRL | 82 | 52-130 | 7 | 31 | |
| cis-Chlordane | 2.05 | 0.12 | ug/L | 2.500 | BRL | 82 | 18-147 | 2 | 40 | |
| beta-BHC | 2.05 | 0.12 | ug/L | 2.500 | BRL | 82 | 31-166 | 4 | 29 | |
| delta-BHC | 2.15 | 0.12 | ug/L | 2.500 | BRL | 86 | 20-171 | 1 | 27 | |
| Dieldrin | 2.35 | 0.12 | ug/L | 2.500 | BRL | 94 | 27-148 | 2 | 28 | |
| Endosulfan I | 2.08 | 0.12 | ug/L | 2.500 | BRL | 83 | 40-141 | 2 | 40 | |
| Endosulfan II | 2.15 | 0.12 | ug/L | 2.500 | BRL | 86 | 43-146 | 1 | 32 | |
| Endosulfan Sulfate | 2.78 | 0.12 | ug/L | 2.500 | BRL | 111 | 37-153 | 2 | 36 | |
| Endrin | 2.42 | 0.12 | ug/L | 2.500 | BRL | 97 | 35-165 | 0 | 27 | |
| Endrin Aldehyde | 2.08 | 0.12 | ug/L | 2.500 | BRL | 83 | 15-165 | 5 | 33 | |
| Endrin Ketone | 2.20 | 0.12 | ug/L | 2.500 | BRL | 88 | 36-172 | 4 | 29 | |
| gamma-BHC | 2.08 | 0.12 | ug/L | 2.500 | BRL | 83 | 45-150 | 7 | 32 | |
| trans-Chlordane | 2.10 | 0.12 | ug/L | 2.500 | BRL | 84 | 35-136 | 2 | 34 | |
| Heptachlor | 2.25 | 0.12 | ug/L | 2.500 | BRL | 90 | 38-150 | 5 | 36 | |
| Heptachlor Epoxide | 2.30 | 0.12 | ug/L | 2.500 | BRL | 92 | 40-141 | 3 | 36 | |
| Methoxychlor | 3.02 | 0.12 | ug/L | 2.500 | BRL | 121 | 37-187 | 3 | 34 | |
| Surrogate: Decachlorobiphenyl | 2.30 | | ug/L | 2.500 | | 92 | 13-186 | | | |
| Surrogate: Tetrachloro-m-xylene | 1.52 | | ug/L | 2.500 | | 61 | 40-134 | | | |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Polychlorinated Biphenyls (PCBs) by GC/ECD - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0279 - 3510C GC | | | | | | | | | | |
| Blank (P4H0279-BLK1) | | | | | | | | | | |
| Prepared & Analyzed: 08/18/14 | | | | | | | | | | |
| Aroclor 1016 | BRL | 0.50 | ug/L | | | | | | | |
| Aroclor 1221 | BRL | 1.0 | ug/L | | | | | | | |
| Aroclor 1232 | BRL | 0.50 | ug/L | | | | | | | |
| Aroclor 1242 | BRL | 0.50 | ug/L | | | | | | | |
| Aroclor 1248 | BRL | 0.50 | ug/L | | | | | | | |
| Aroclor 1254 | BRL | 0.50 | ug/L | | | | | | | |
| Aroclor 1260 | BRL | 0.50 | ug/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | 0.940 | | ug/L | 1.000 | | 94 | 30-161 | | | |
| Surrogate: Decachlorobiphenyl | 1.00 | | ug/L | 1.000 | | 100 | 32-178 | | | |
| LCS (P4H0279-BS1) | | | | | | | | | | |
| Prepared & Analyzed: 08/18/14 | | | | | | | | | | |
| Aroclor 1016 | 9.89 | 0.50 | ug/L | 10.00 | | 99 | 50-114 | | | |
| Aroclor 1260 | 9.56 | 0.50 | ug/L | 10.00 | | 96 | 10-127 | | | |
| Surrogate: Tetrachloro-m-xylene | 0.860 | | ug/L | 1.000 | | 86 | 30-161 | | | |
| Surrogate: Decachlorobiphenyl | 0.980 | | ug/L | 1.000 | | 98 | 32-178 | | | |
| LCS Dup (P4H0279-BSD1) | | | | | | | | | | |
| Prepared & Analyzed: 08/18/14 | | | | | | | | | | |
| Aroclor 1016 | 9.15 | 0.50 | ug/L | 10.00 | | 92 | 50-114 | 8 | 50 | |
| Aroclor 1260 | 9.29 | 0.50 | ug/L | 10.00 | | 93 | 10-127 | 3 | 50 | |
| Surrogate: Tetrachloro-m-xylene | 0.890 | | ug/L | 1.000 | | 89 | 30-161 | | | |
| Surrogate: Decachlorobiphenyl | 0.960 | | ug/L | 1.000 | | 96 | 32-178 | | | |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

Total Metals - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------------|---------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0355 - 7470A | | | | | | | | | | |
| Blank (P4H0355-BLK1) | | | | | | | | | | |
| Prepared: 08/20/14 Analyzed: 08/21/14 | | | | | | | | | | |
| Mercury | BRL | 0.00020 | mg/L | | | | | | | |
| LCS (P4H0355-BS1) | | | | | | | | | | |
| Prepared: 08/20/14 Analyzed: 08/21/14 | | | | | | | | | | |
| Mercury | 0.00939 | 0.00020 | mg/L | 0.009375 | | 100 | 80-120 | | | |
| Batch P4H0393 - 3010A | | | | | | | | | | |
| Blank (P4H0393-BLK1) | | | | | | | | | | |
| Prepared: 08/22/14 Analyzed: 08/27/14 | | | | | | | | | | |
| Arsenic | BRL | 0.010 | mg/L | | | | | | | |
| Barium | BRL | 0.010 | mg/L | | | | | | | |
| Cadmium | BRL | 0.0010 | mg/L | | | | | | | |
| Chromium | BRL | 0.0050 | mg/L | | | | | | | |
| Lead | BRL | 0.0050 | mg/L | | | | | | | |
| Selenium | BRL | 0.020 | mg/L | | | | | | | |
| Silver | BRL | 0.0050 | mg/L | | | | | | | |
| LCS (P4H0393-BS1) | | | | | | | | | | |
| Prepared: 08/22/14 Analyzed: 08/27/14 | | | | | | | | | | |
| Arsenic | 0.255 | 0.010 | mg/L | 0.2500 | | 102 | 80-120 | | | |
| Barium | 0.259 | 0.010 | mg/L | 0.2500 | | 104 | 80-120 | | | |
| Cadmium | 0.257 | 0.0010 | mg/L | 0.2500 | | 103 | 80-120 | | | |
| Chromium | 0.256 | 0.0050 | mg/L | 0.2500 | | 102 | 80-120 | | | |
| Lead | 0.257 | 0.0050 | mg/L | 0.2500 | | 103 | 80-120 | | | |
| Selenium | 0.262 | 0.020 | mg/L | 0.2500 | | 105 | 80-120 | | | |
| Silver | 0.105 | 0.0050 | mg/L | 0.1000 | | 105 | 80-120 | | | |

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Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080360
Time Submitted: 8/18/2014 5:00:00PM

General Chemistry Parameters - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|--|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0340 - NO PREP | | | | | | | | | | |
| Blank (P4H0340-BLK1) | | | | Prepared & Analyzed: 08/19/14 | | | | | | |
| Turbidity | BRL | 0.40 | NTU | | | | | | | |
| LCS (P4H0340-BS1) | | | | Prepared & Analyzed: 08/19/14 | | | | | | |
| Turbidity | 4.24 | 0.40 | NTU | 4.000 | | 106 | 90-110 | | | |
| Batch P4H0343 - NO PREP | | | | | | | | | | |
| Blank (P4H0343-BLK1) | | | | Prepared & Analyzed: 08/19/14 | | | | | | |
| Hexavalent Chromium | BRL | 0.010 | mg/L | | | | | | | |
| LCS (P4H0343-BS1) | | | | Prepared & Analyzed: 08/19/14 | | | | | | |
| Hexavalent Chromium | 0.378 | 0.010 | mg/L | 0.4000 | | 95 | 90-110 | | | |
| Matrix Spike (P4H0343-MS1) | | | | Source: 4080360-01 Prepared & Analyzed: 08/19/14 | | | | | | |
| Hexavalent Chromium | 0.426 | 0.010 | mg/L | 0.4000 | 0.0300 | 99 | 85-115 | | | |
| Matrix Spike Dup (P4H0343-MSD1) | | | | Source: 4080360-01 Prepared & Analyzed: 08/19/14 | | | | | | |
| Hexavalent Chromium | 0.431 | 0.010 | mg/L | 0.4000 | 0.0300 | 100 | 85-115 | 1 | 20 | |

Sample Extraction Data

Prep Method: 3510C GC

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|---------------|
| 4080360-01 | P4H0369 | 800 mL | 10 mL | 08/21/14 8:30 |

Prep Method: 3510C GC

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|---------------|
| 4080360-01 | P4H0279 | 900 mL | 10 mL | 08/19/14 8:15 |

Prep Method: 3510C MS

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|----------------|
| 4080360-01 | P4H0313 | 1000 mL | 1 mL | 08/19/14 13:05 |
| 4080360-02 | P4H0313 | 650 mL | 1 mL | 08/19/14 13:05 |

Prep Method: 3010A

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|---------------|
| 4080360-01 | P4H0393 | 50 mL | 50 mL | 08/22/14 8:45 |

Prep Method: 7470A

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|----------------|
| 4080360-01 | P4H0355 | 20 mL | 30 mL | 08/20/14 10:45 |

Prep Method: 5030B

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|----------------|
| 4080360-01 | P4H0368 | 10 mL | 10 mL | 08/20/14 10:51 |

CHAIN OF CUSTODY RECORD

LAB USE ONLY

Client Company Name: Falcon Engineering
 Report To/Contact Name: Jessica Haguen
 Reporting Address: 1218 Trinity Road
Raleigh NC

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING: _____
 Project Name: 828 MLK Jr Blvd
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
 *Please ATTACH any project specific reporting (QC LEVEL III III IIV)
 Invoice To: Jessica Haguen/Josh Dunbar
 Address: _____

| | | | |
|--|-----|----|-----|
| Samples INTACT upon arrival? | YES | NO | N/A |
| Received ON WET ICE? | | | |
| PROPER PRESERVATIVES indicated? | | | |
| Received WITHIN HOLDING TIMES? | | | |
| CUSTODY SEALS INTACT? | | | |
| VOLATILES rec'd W/OUT HEADSPACE? | | | |
| PROPER CONTAINERS used? | | | |
| TEMP: Therm ID: <u>MT-2</u> Observed: <u>3.1</u> °C; Corr: <u>1.6</u> °C | | | |

Phone: 919 741 104 Fax (Yes) (No): _____
 Email Address: johnson@falconengineers.com
 EDD Type: PDF Excel Other _____
 Site Location Name: Charlotte Hill Police Dep
 Site Location Physical Address: 828 MLK JR Blvd
Chapel Hill NC

Purchase Order No./Billing Reference: E13047.07
 Requested Due Date 1 Day 2 Days 3 Days 4 Days 5 Days
 "Working Days" 6-9 Days Standard 10 days Pre-Approved
 Samples received after 14:00 will be processed next business day.
 Turnaround time is based on business days, excluding weekends and holidays.
 (SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES
 RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
 Certification: NELAC DOD FL NC
 SC OTHER N/A
 Water Chlorinated: YES NO
 Sample Iced Upon Collection: YES NO

| CLIENT SAMPLE DESCRIPTION | DATE COLLECTED | TIME COLLECTED MILITARY HOURS | MATRIX (SOIL, WATER OR SLUDGE) | SAMPLE CONTAINER | | | PRESERVATIVES | ANALYSIS REQUESTED | REMARKS | PRISM LAB ID NO. |
|---------------------------|----------------|-------------------------------|--------------------------------|------------------|-----|------|---------------|--|---------|------------------|
| | | | | *TYPE SEE BELOW | NO. | SIZE | | | | |
| W011 1 | 8/15/14 | 10:30A | GW | | 11 | | | 8270 | | 01 |
| MW4 | 8/15/14 | 2:00P | GW | | 2 | | | Hex Chr RCRA MET 808/185 SUNSHINE | | 02 |
| | | | | | | | | | | |
| | | | | | | | | | | |

PRESS DOWN FIRMLY - 3 COPIES

Sampler's Signature: _____ Sampled By (Print Name): _____ Affiliation: _____

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By (Signature): _____ Received By (Signature): _____ Date: 8/15/14 Military/Hours: 16:15

Relinquished By (Signature): _____ Received By (Signature): _____ Date: 8-15-14 Military/Hours: 1300

Relinquished By (Signature): _____ Received For Prism Laboratories By: _____ Date: 8-15-14 Military/Hours: 1700

Method of Shipment: Fed Ex UPS Hand-delivered Prism Field Service Other _____

Groundwater: NC SC Other _____

Drinking Water: NC SC _____

Solid Waste: RCRA: CERCLA Landfill Other: 4050360

Additional Comments: _____

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL



Full-Service Analytical & Environmental Solutions

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert No. 37735
VA Certification No. 460211
DoD ELAP: L-A-B Accredited Certificate No. L2307
ISO/IEC 17025: L-A-B Accredited Certificate No. L2307

Case Narrative

09/05/2014

Falcon Engineering
Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Lab Submittal Date: 08/21/2014
Prism Work Order: 4080415

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Please call if you have any questions relating to this analytical report.

Respectfully,

PRISM LABORATORIES, INC.

Angela D. Overcash
VP Laboratory Services

Reviewed By Robbi A. Jones For Angela D. Overcash
President/Project Manager

Data Qualifiers Key Reference:

- MI Matrix spike outside of the control limits. Matrix interference suspected.
- BRL Below Reporting Limit
- MDL Method Detection Limit
- RPD Relative Percent Difference
- * Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

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| Client Sample ID | Lab Sample ID | Matrix | Date Sampled | Date Received |
|-------------------|---------------|----------------|--------------|---------------|
| MW-4 | 4080415-01 | Water | 08/20/14 | 08/21/14 |
| MW-3 | 4080415-02 | Water | 08/20/14 | 08/21/14 |
| MW-4 - Unfiltered | 4080415-03 | Solid Material | 08/20/14 | 08/21/14 |

Samples were received in good condition at 0.5 degrees C unless otherwise noted.



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr
Blvd.

Sample Matrix: Water

Client Sample ID: MW-4
Prism Sample ID: 4080415-01
Prism Work Order: 4080415
Time Collected: 08/20/14 11:15
Time Submitted: 08/21/14 08:20

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|-------------------------------------|--------------|-------------|--------------|---------------|-----------------|---------------|----------------------|------------|----------------|
| General Chemistry Parameters | | | | | | | | | |
| Hexavalent Chromium | BRL | mg/L | 0.010 | 0.0026 | 1 | *SM3500-Cr B | 8/21/14 10:20 | MES | P4H0375 |
| Total Metals | | | | | | | | | |
| Mercury | BRL | mg/L | 0.00020 | 0.000012 | 1 | *7470A | 9/4/14 11:18 | BGM | P4I0021 |
| Arsenic | BRL | mg/L | 0.010 | 0.0012 | 1 | *6010C | 8/27/14 21:00 | BGM | P4H0393 |
| Barium | 0.075 | mg/L | 0.010 | 0.0025 | 1 | *6010C | 8/27/14 21:00 | BGM | P4H0393 |
| Cadmium | BRL | mg/L | 0.0010 | 0.000044 | 1 | *6010C | 8/27/14 21:00 | BGM | P4H0393 |
| Chromium | BRL | mg/L | 0.0050 | 0.00038 | 1 | *6010C | 8/27/14 21:00 | BGM | P4H0393 |
| Lead | BRL | mg/L | 0.0050 | 0.00057 | 1 | *6010C | 8/27/14 21:00 | BGM | P4H0393 |
| Selenium | BRL | mg/L | 0.020 | 0.0037 | 1 | *6010C | 8/27/14 21:00 | BGM | P4H0393 |
| Silver | BRL | mg/L | 0.0050 | 0.00024 | 1 | *6010C | 8/27/14 21:00 | BGM | P4H0393 |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Sample Matrix: Water

Client Sample ID: MW-3
Prism Sample ID: 4080415-02
Prism Work Order: 4080415
Time Collected: 08/20/14 12:40
Time Submitted: 08/21/14 08:20

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|-------------------------------------|--------|-------|--------------|----------|-----------------|--------------|--------------------|---------|----------|
| General Chemistry Parameters | | | | | | | | | |
| Hexavalent Chromium | 0.023 | mg/L | 0.010 | 0.0026 | 1 | *SM3500-Cr B | 8/21/14 10:20 | MES | P4H0375 |
| Turbidity | 13 | NTU | 1.0 | 0.016 | 1 | *180.1 | 8/21/14 15:50 | MES | P4H0394 |
| Total Metals | | | | | | | | | |
| Mercury | BRL | mg/L | 0.00020 | 0.000012 | 1 | *7470A | 9/4/14 11:26 | BGM | P4I0021 |
| Arsenic | BRL | mg/L | 0.010 | 0.0012 | 1 | *6010C | 8/27/14 21:08 | BGM | P4H0393 |
| Barium | 0.22 | mg/L | 0.010 | 0.0025 | 1 | *6010C | 8/27/14 21:08 | BGM | P4H0393 |
| Cadmium | BRL | mg/L | 0.0010 | 0.000044 | 1 | *6010C | 8/27/14 21:08 | BGM | P4H0393 |
| Chromium | BRL | mg/L | 0.0050 | 0.00038 | 1 | *6010C | 8/27/14 21:08 | BGM | P4H0393 |
| Lead | BRL | mg/L | 0.0050 | 0.00057 | 1 | *6010C | 8/27/14 21:08 | BGM | P4H0393 |
| Selenium | BRL | mg/L | 0.020 | 0.0037 | 1 | *6010C | 8/27/14 21:08 | BGM | P4H0393 |
| Silver | BRL | mg/L | 0.0050 | 0.00024 | 1 | *6010C | 8/27/14 21:08 | BGM | P4H0393 |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr
Blvd.

Sample Matrix: Solid Material

Client Sample ID: MW-4 - Unfiltered
Prism Sample ID: 4080415-03
Prism Work Order: 4080415
Time Collected: 08/20/14 11:15
Time Submitted: 08/21/14 08:20

| Parameter | Result | Units | Report Limit | MDL | Dilution Factor | Method | Analysis Date/Time | Analyst | Batch ID |
|---------------------|--------|-----------|--------------|--------|-----------------|--------|--------------------|---------|----------|
| Total Metals | | | | | | | | | |
| Arsenic | 1.2 | mg/kg wet | 0.25 | 0.037 | 1 | *6010C | 9/4/14 19:00 | BGM | P4I0056 |
| Barium | 45 | mg/kg wet | 0.49 | 0.025 | 1 | *6010C | 9/2/14 22:11 | BGM | P4H0474 |
| Cadmium | BRL | mg/kg wet | 0.25 | 0.0024 | 1 | *6010C | 9/2/14 22:11 | BGM | P4H0474 |
| Chromium | 7.0 | mg/kg wet | 0.25 | 0.080 | 1 | *6010C | 9/2/14 22:11 | BGM | P4H0474 |
| Lead | 2.1 | mg/kg | 0.25 | 0.030 | 1 | *6010C | 9/4/14 19:00 | BGM | P4I0056 |
| Selenium | 0.97 | mg/kg wet | 0.51 | 0.061 | 1 | *6010C | 9/4/14 19:00 | BGM | P4I0056 |
| Silver | BRL | mg/kg wet | 0.25 | 0.0040 | 1 | *6010C | 9/2/14 22:11 | BGM | P4H0474 |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080415
Time Submitted: 8/21/2014 8:20:00AM

Total Metals - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch P4H0393 - 3010A

Blank (P4H0393-BLK1) Prepared: 08/22/14 Analyzed: 08/27/14

| | | | | | | | | | | |
|----------|-----|--------|------|--|--|--|--|--|--|--|
| Arsenic | BRL | 0.010 | mg/L | | | | | | | |
| Barium | BRL | 0.010 | mg/L | | | | | | | |
| Cadmium | BRL | 0.0010 | mg/L | | | | | | | |
| Chromium | BRL | 0.0050 | mg/L | | | | | | | |
| Lead | BRL | 0.0050 | mg/L | | | | | | | |
| Selenium | BRL | 0.020 | mg/L | | | | | | | |
| Silver | BRL | 0.0050 | mg/L | | | | | | | |

LCS (P4H0393-BS1)

Prepared: 08/22/14 Analyzed: 08/27/14

| | | | | | | | | | | |
|----------|-------|--------|------|--------|--|-----|--------|--|--|--|
| Arsenic | 0.255 | 0.010 | mg/L | 0.2500 | | 102 | 80-120 | | | |
| Barium | 0.259 | 0.010 | mg/L | 0.2500 | | 104 | 80-120 | | | |
| Cadmium | 0.257 | 0.0010 | mg/L | 0.2500 | | 103 | 80-120 | | | |
| Chromium | 0.256 | 0.0050 | mg/L | 0.2500 | | 102 | 80-120 | | | |
| Lead | 0.257 | 0.0050 | mg/L | 0.2500 | | 103 | 80-120 | | | |
| Selenium | 0.262 | 0.020 | mg/L | 0.2500 | | 105 | 80-120 | | | |
| Silver | 0.105 | 0.0050 | mg/L | 0.1000 | | 105 | 80-120 | | | |

Batch P4H0474 - 3050B

Blank (P4H0474-BLK1) Prepared: 08/27/14 Analyzed: 09/02/14

| | | | | | | | | | | |
|----------|-----|------|-----------|--|--|--|--|--|--|--|
| Barium | BRL | 0.50 | mg/kg wet | | | | | | | |
| Cadmium | BRL | 0.25 | mg/kg wet | | | | | | | |
| Chromium | BRL | 0.25 | mg/kg wet | | | | | | | |
| Silver | BRL | 0.25 | mg/kg wet | | | | | | | |

LCS (P4H0474-BS1)

Prepared: 08/27/14 Analyzed: 09/02/14

| | | | | | | | | | | |
|----------|------|------|-----------|-------|--|----|--------|--|--|--|
| Barium | 20.2 | 0.50 | mg/kg wet | 25.00 | | 81 | 80-120 | | | |
| Cadmium | 20.1 | 0.25 | mg/kg wet | 25.00 | | 80 | 80-120 | | | |
| Chromium | 19.9 | 0.25 | mg/kg wet | 25.00 | | 80 | 80-120 | | | |
| Silver | 8.38 | 0.25 | mg/kg wet | 10.00 | | 84 | 80-120 | | | |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080415
Time Submitted: 8/21/2014 8:20:00AM

Total Metals - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch P4H0474 - 3050B

| Post Spike (P4H0474-PS1) | | | | Prepared: 08/27/14 Analyzed: 09/02/14 | | | | | | |
|---------------------------------|-------|--|------|---------------------------------------|--|-----|--------|--|--|----|
| Barium | 2.50 | | mg/L | 1.000 | | 250 | 80-120 | | | MI |
| Cadmium | 0.657 | | mg/L | 1.000 | | 66 | 80-120 | | | MI |
| Chromium | 0.988 | | mg/L | 1.000 | | 99 | 80-120 | | | MI |
| Silver | 0.293 | | mg/L | 0.4000 | | 73 | 80-120 | | | MI |

Batch P4I0021 - 7470A

| Blank (P4I0021-BLK1) | | | | Prepared: 09/03/14 Analyzed: 09/04/14 | | | | | | |
|--|---------|---------|------|---|-----|----|--------|---|----|----|
| Mercury | BRL | 0.00020 | mg/L | | | | | | | |
| LCS (P4I0021-BS1) | | | | Prepared: 09/03/14 Analyzed: 09/04/14 | | | | | | |
| Mercury | 0.00797 | 0.00020 | mg/L | 0.009375 | | 85 | 80-120 | | | |
| Matrix Spike (P4I0021-MS1) | | | | Source: 4080415-01 Prepared: 09/03/14 Analyzed: 09/04/14 | | | | | | |
| Mercury | 0.00488 | 0.00020 | mg/L | 0.009375 | BRL | 52 | 80-120 | | | MI |
| Matrix Spike Dup (P4I0021-MSD1) | | | | Source: 4080415-01 Prepared: 09/03/14 Analyzed: 09/04/14 | | | | | | |
| Mercury | 0.00472 | 0.00020 | mg/L | 0.009375 | BRL | 50 | 80-120 | 3 | 20 | MI |

Batch P4I0056 - 3050B

| Blank (P4I0056-BLK1) | | | | Prepared & Analyzed: 09/04/14 | | | | | | |
|-----------------------------|-----|------|-----------|-------------------------------|--|--|--|--|--|--|
| Arsenic | BRL | 0.25 | mg/kg wet | | | | | | | |
| Lead | BRL | 0.25 | mg/kg | | | | | | | |
| Selenium | BRL | 0.50 | mg/kg wet | | | | | | | |



Falcon Engineering
Attn: Josh Dunbar
1210 Trinity Road
Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080415
Time Submitted: 8/21/2014 8:20:00AM

Total Metals - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch P4I0056 - 3050B

LCS (P4I0056-BS1)

Prepared & Analyzed: 09/04/14

| | | | | | | | | | | |
|----------|------|------|-----------|-------|--|----|--------|--|--|--|
| Arsenic | 24.6 | 0.25 | mg/kg wet | 25.00 | | 98 | 80-120 | | | |
| Lead | 24.6 | 0.25 | mg/kg | 25.00 | | 98 | 80-120 | | | |
| Selenium | 24.4 | 0.50 | mg/kg wet | 25.00 | | 98 | 80-120 | | | |



Falcon Engineering
 Attn: Josh Dunbar
 1210 Trinity Road
 Raleigh, NC 27607

Project: 828 Martin Luther King Jr Blvd.

Prism Work Order: 4080415
 Time Submitted: 8/21/2014 8:20:00AM

General Chemistry Parameters - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|--|---------------|------|-------------|-----|-----------|-------|
| Batch P4H0375 - NO PREP | | | | | | | | | | |
| Blank (P4H0375-BLK1) | | | | Prepared & Analyzed: 08/21/14 | | | | | | |
| Hexavalent Chromium | BRL | 0.010 | mg/L | | | | | | | |
| LCS (P4H0375-BS1) | | | | Prepared & Analyzed: 08/21/14 | | | | | | |
| Hexavalent Chromium | 0.413 | 0.010 | mg/L | 0.4000 | | 103 | 90-110 | | | |
| Matrix Spike (P4H0375-MS1) | | | | Source: 4080415-02 Prepared & Analyzed: 08/21/14 | | | | | | |
| Hexavalent Chromium | 0.376 | 0.010 | mg/L | 0.4000 | 0.0227 | 88 | 85-115 | | | |
| Matrix Spike Dup (P4H0375-MSD1) | | | | Source: 4080415-02 Prepared & Analyzed: 08/21/14 | | | | | | |
| Hexavalent Chromium | 0.366 | 0.010 | mg/L | 0.4000 | 0.0227 | 86 | 85-115 | 3 | 20 | |

Batch P4H0394 - NO PREP

| | | | | | | | | | | |
|---------------------------------|------|------|-----|--|------|-----|--------|---|----|--|
| Blank (P4H0394-BLK1) | | | | Prepared & Analyzed: 08/21/14 | | | | | | |
| Turbidity | BRL | 0.40 | NTU | | | | | | | |
| LCS (P4H0394-BS1) | | | | Prepared & Analyzed: 08/21/14 | | | | | | |
| Turbidity | 4.34 | 0.40 | NTU | 4.000 | | 108 | 90-110 | | | |
| Duplicate (P4H0394-DUP1) | | | | Source: 4080415-02 Prepared & Analyzed: 08/21/14 | | | | | | |
| Turbidity | 12.1 | 0.40 | NTU | | 12.9 | | | 6 | 20 | |

Sample Extraction Data

Prep Method: 3010A

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|---------------|
| 4080415-01 | P4H0393 | 50 mL | 50 mL | 08/22/14 8:45 |
| 4080415-02 | P4H0393 | 50 mL | 50 mL | 08/22/14 8:45 |

Prep Method: 3050B

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|---------------|
| 4080415-03 | P4I0056 | 1.98 g | 50 mL | 09/04/14 9:05 |
| 4080415-03 | P4H0474 | 2.03 g | 50 mL | 08/27/14 9:05 |

Prep Method: 7470A

| Lab Number | Batch | Initial | Final | Date/Time |
|------------|---------|---------|-------|----------------|
| 4080415-01 | P4I0021 | 20 mL | 30 mL | 09/03/14 12:00 |
| 4080415-02 | P4I0021 | 20 mL | 30 mL | 09/03/14 12:00 |

CHAIN OF CUSTODY RECORD

LAB USE ONLY

Client Company Name: Falcon Engineering
 Report To/Contact Name: Jessica Hodges
 Reporting Address: 1210 Infinity Road
Raleigh NC

Project Name: 828 Martin Luther King Blvd
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (NO)
 *Please ATTACH any project specific reporting (QC LEVEL I III IV) provisions and/or QC Requirements
 Invoice To: Josh Dumar
 Address: Johnson & Associates Engineers.com

Samples INTACT upon arrival? YES NO N/A
 Received ON WET ICE? YES NO N/A
 PROPER PRESERVATIVES indicated? YES NO N/A
 Received WITHIN HOLDING TIMES? YES NO N/A
 CUSTODY SEALS INTACT? YES NO N/A
 VOLATILES rec'd W/OUT HEADSPACE? YES NO N/A
 PROPER CONTAINERS used? YES NO N/A
 TEMP: Therm ID: 21-42 Observed: 20 °C / Corr: 05 °C

Phone: 919 740 1704 Fax (Yes) (No):
 Email Address: johnsonandassociates.com
 EDD Type: PDF Excel Other
 Site Location Name: E13047.07
 Site Location Physical Address: 828 MLK
Chapel Hill NC

Purchase Order No./Billing Reference
 Requested Due Date 1 Day 2 Days 3 Days 4 Days 5 Days
 "Working Days" 6-9 Days Standard 10 days Rush Work Must Be Pre-Approved
 Samples received after 14:00 will be processed next business day.
 Turnaround time is based on business days, excluding weekends and holidays.
 (SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
 Certification: NEIAC Dod FL NC
 SC OTHER N/A
 Water Chlorinated: YES NO
 Sample Iced Upon Collection: YES NO

| CLIENT SAMPLE DESCRIPTION | DATE COLLECTED | TIME COLLECTED MILITARY HOURS | MATRIX (SOIL, WATER OR SLUDGE) | SAMPLE CONTAINER | | | PRESERVATIVES | REMARKS | PRISM LAB ID NO. |
|---------------------------|----------------|-------------------------------|--------------------------------|------------------|-----|------|---------------|---|------------------|
| | | | | *TYPE | NO. | SIZE | | | |
| MW4 | 8/20 | 11:15a | GW | P | 3 | 3 | HNO3 | RCRA Metals Hex Chl Turbidity | 61 |
| MW3 | 8/20 | 12:40p | GW | P | 3 | 3 | | *For MW4 written up for filtered or unfiltered sample (on top of lid) | 62 |
| | | | | | | | | 24 hr. Hold | |

Sampler's Signature: _____ Sampled By (Print Name): _____ Affiliation: _____
 Upon relinquishing this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By (Signature): _____ Received By (Signature): _____ Date: 8/20/11 Military/Hours: 3:15p/15:15p
 Relinquished By (Signature): _____ Received By (Signature): _____ Date: 8/21/11 Military/Hours: 0750
 Relinquished By (Signature): _____ Received For Prism Laboratories By: _____ Date: 8/21/11 Military/Hours: 0720

Method of Shipment: Fed Ex UPS Hand-delivered Prism Field Service Other
 NPDES: NC SC SC SC SC SC SC SC SC SC SC SC SC SC
 GROUNDWATER: NC SC SC SC SC SC SC SC SC
 DRINKING WATER: NC SC SC SC SC SC SC SC SC
 SOLID WASTE: NC SC SC SC SC SC SC SC SC
 RCRA: NC SC SC SC SC SC SC SC SC
 CERCLA NC SC SC SC SC SC SC SC SC
 LANDFILL NC SC SC SC SC SC SC SC SC
 OTHER: NC SC SC SC SC SC SC SC SC
 COC Group No: 4080415

SEE REVERSE FOR TERMS & CONDITIONS

ATTACHMENT D | EXCERPTS FROM US EPA GUIDANCE



3 Groundwater Sampling Methods – Purging

3.1 General

Purging is the process of removing stagnant water from a well, immediately prior to sampling, causing its replacement by groundwater from the adjacent formation that is representative of actual aquifer conditions. In order to determine when a well has been adequately purged, field investigators should monitor, at a minimum, the pH, specific conductance and turbidity of the groundwater removed during purging and, in the case of permanent monitoring wells, observe and record the volume of water removed.

There are several purging strategies that may be used, depending on specific conditions encountered for given well sampling situations. When a specific well is characterized, based on the field investigators experience and knowledge, as having fairly typical water levels, depths and purge volumes, as determined according to the procedures in Section 3.2.1, below, SESD will normally use the multiple volume purging procedures and equipment described in Sections 3.2.1 and 3.3 of this procedure for purging the well.

When the traditional multiple volume purge method is considered and it is determined that excessive quantities of IDW would be generated using this method, it may be appropriate, under very limited and specific circumstances, to use an alternate method that reduces the time and amount of purge water to be removed prior to sampling the well. The field project leader will select the alternate method only after careful consideration of the conditions presented by the well and the impact these conditions have on all aspects of the sampling event (time required to sample, quantities of IDW requiring management, etc.).

The alternate purge procedures or sampling strategies available are the “Tubing-in-Screened Interval” method and the MicroPurge or No-Purge methods. These are described and discussed in Sections 3.2.2 and 4.5 of this operating procedure, respectively.

3.2 Purging Methods and Strategies

3.2.1 Traditional Multiple Volume Purge

3.2.1.1 Purging and Purge Adequacy

3.2.1.1.1 Purge Volume Determination

Prior to initiating the purge, the amount of water standing in the water column (water inside the well riser and screen) should be determined, if possible. To do this, the diameter of the well should be determined and the water level and total depth of the well should be measured and recorded. Specific methodology for obtaining these measurements is found in SESD Operating Procedure for Groundwater Level and Well Depth Measurement (SESDPROC-105).

Once this information is obtained, the volume of water to be purged can be determined using one of several methods. One is the equation:

$$V = 0.041 d^2h$$

Where: h = depth of water in feet

d = diameter of well in inches

V = volume of water in gallons

Alternatively, the volume of standing water in the well and the volume of three water columns may be determined using a casing volume per foot factor for the appropriate diameter well, similar to that in Table 3.2.1. The water level is subtracted from the total depth, providing the length of the water column. This length is multiplied by the appropriate factor in the Table 3.2.1, corresponding to either the single well volume or the triple well volume, to determine both the single well volume and triple well volumes, in gallons, for the well in question. Other acceptable methods include the use of nomographs or other equations or formulae.

TABLE 3.2.1: WELL CASING DIAMETER VOLUME FACTORS

| Casing Diameter (inches) | Gallons/ft, One Water Column | Gallons/ft, Three Water Columns |
|--------------------------|------------------------------|---------------------------------|
| 1 | 0.04 | 0.12 |
| 2 | 0.16 | 0.48 |
| 3 | 0.37 | 1.11 |
| 4 | 0.65 | 1.98 |
| 5 | 1.02 | 3.06 |
| 6 | 1.47 | 4.41 |
| 7 | 1.99 | 5.97 |
| 8 | 2.61 | 7.83 |
| 9 | 3.30 | 9.90 |
| 10 | 4.08 | 12.24 |
| 11 | 4.93 | 14.79 |
| 12 | 5.87 | 17.61 |

With respect to volume, an adequate purge is normally achieved when three to five well volumes have been removed. The field notes should reflect the single well volume calculations or determinations, according to one of the above methods, and a reference to the appropriate

multiplication of that volume, i.e., a minimum three well volumes, clearly identified as a purge volume goal.

3.2.1.1.2 Chemical Parameter Stabilization Criteria

With respect to the ground water chemistry, an adequate purge is achieved when the pH and specific conductance of the ground water have stabilized and the turbidity has either stabilized or is below 10 Nephelometric Turbidity Units (NTUs) (twice the Primary Drinking Water Standard of 5 NTUs). Although 10 NTUs is normally considered the minimum goal for most ground water sampling objectives, lower turbidity has been shown to be easily achievable in most situations and reasonable attempts should be made to achieve these lower levels. (Note: Because groundwater temperature is subject to rapid changes when collected for parameter measurement, its usefulness is subject to question for the purpose of determining parameter stability. As such, it has been removed from the list of parameters used for stability determination. Even though temperature is not used to determine stability during well purging, it is still advisable to record the sample temperature, along with the other groundwater chemistry parameters during well purging, as it may be needed to interpret other chemical parameter results in some situations.)

Stabilization occurs when, for at least three consecutive measurements, the pH remains constant within 0.1 Standard Unit (SU) and specific conductance varies no more than approximately 5 percent. Other parameters, such as dissolved oxygen (DO), may also be used as a purge adequacy parameter. Normal goals for DO are 0.2 mg/L or 10% saturation, whichever is greater. DO measurements must be conducted using either a flow-through cell or an over-topping cell to minimize or reduce any oxygenation of the sample during measurement. Oxidation Reduction Potential (ORP) should not be used as a purge stabilization parameter but may be measured during purging to obtain the measurement of record for ORP for the sampling event.

There are no set criteria for establishing how many total sets of measurements are adequate to document stability of parameters. If the calculated purge volume is small, the measurements should be taken frequently enough to provide a sufficient number of measurements to evaluate stability. If the purge volume is large, measurements taken every 15 minutes, for example, may be sufficient. See the SESD Operating Procedures for Field pH Measurement (SESDPROC-100), Field Specific Conductance Measurement (SESDPROC-101), Field Temperature Measurement (SESDPROC-102), Field Turbidity Measurement (SESDPROC-103), Field Measurement of Dissolved Oxygen (SESDPROC-106) and Field Measurement of Oxidation-Reduction Potential (SESDPROC-113) for procedures for conducting these measurements.

If, after three well volumes have been removed, the chemical parameters have not stabilized according to the above criteria, additional well volumes (up to five well volumes), should be removed. If the parameters have not stabilized within five volumes, it is at the discretion of the project leader whether or not to collect a sample or to continue purging. If, after five well volumes, pH and conductivity have stabilized and the turbidity is still decreasing and approaching an acceptable level, additional purging should be considered to obtain the best sample possible, with respect to turbidity. The conditions of sampling should be noted in the field log.

3.2.1.1.3 Purge Adequacy Considerations

In some situations, even with slow purge rates, a well may be pumped or bailed dry (evacuated). In these situations, this generally constitutes an adequate purge and the well can be sampled following sufficient recovery (enough volume to allow filling of all sample containers). ***It is not necessary that the well be evacuated three times before it is sampled.*** The pH, specific conductance, temperature, and turbidity should be measured and recorded, during collection of the sample from the recovered volume, as the measurements of record for the sampling event.

For wells with slow recovery, attempts should be made to avoid purging them to dryness. This can be accomplished, for example, by slowing the purge rate. As water enters a well that has been purged to dryness, it may cascade down the sand pack and/or the well screen, stripping volatile organic constituents that may be present and/or introducing soil fines into the water column.

It is particularly important that wells be sampled as soon as possible after purging. If adequate volume is available immediately upon completion of purging, the well must be sampled immediately. If not, sampling should occur as soon as adequate volume has recovered. If possible, sampling of wells which have a slow recovery should be scheduled so that they can be purged and sampled in the same day, after adequate volume has recovered. Wells of this type should, unless it is unavoidable, not be purged at the end of one day and sampled the following day.

3.2.2 “Tubing-in-Screened-Interval” Method

The “Tubing-in-Screen” method, sometimes referred to as the “Low Flow” method, is used primarily when calculated purge volumes for the traditional purging method are excessive and present issues related to timely completion of the project and/or management of investigation derived waste.