

BGES, INC.

ENVIRONMENTAL CONSULTANTS

BGES, INC.
Providing Environmental and Geological Consulting Services

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September 9, 2019

Robert Weimer
Alaska Department of Environmental Conservation
Contaminated Sites Program
555 Cordova Street
Anchorage, Alaska 99501

RE: SUMMARY REPORT - REQUEST TO REUSE PEAT/SOIL STOCKPILE AT 10240 OLD SEWARD HIGHWAY, ANCHORAGE, ALASKA

Dear Mr. Weimer:

BGES personnel mobilized to the site on August 14, 2019 for the purposes of performing stockpile sampling in association with the covered peat stockpile located at 10240 Old Seward Highway in Anchorage; hereafter referred to as the subject property. The ADEC File Number and Hazard Identification Number associated with the peat stockpile are 2100.38.543 and 26086, respectively. This document serves to summarize the peat stockpile characterization sampling activities.

The stockpiles were originally constructed in general accordance with ADEC stockpile construction guidelines during 2013 by a previous consultant. The stockpile was approximately 54 feet long by 42 feet wide by 9 feet average height prior to collection of the samples. The peat stockpile was estimated to be approximately 700 to 750 cubic yards. There was no evidence that the soil stockpile had been disturbed since 2017 when the stockpile cover was replaced.

The peat stockpile was sampled in accordance with the proposed sampling methodology you approved via email correspondence dated August 9, 2019. Field screening samples were not required for this sampling event because all photoionization detector (PID) readings were 0 parts per million (ppm) during the previous sampling event during 2014. It is noted that heated headspace field screening samples were collected from each sample location utilizing a PID, which was calibrated prior to use with 100 ppm isobutylene calibration gas. The screening samples were collected in sealable plastic bags and allowed to equilibrate for at least 10 minutes, but not greater than one hour, and were allowed to warm to at least 40 degrees Fahrenheit. The bags were then agitated for approximately 15 seconds prior to inserting the probe of the PID into the bag. The

greatest PID reading was then recorded for each field screening sample. All six field screening samples exhibited a PID of 0 ppm. No visual or olfactory indications of contamination were observed in any of the soils during the collection of the stockpile samples.

Six peat/soil samples plus one duplicate sample were collected from the stockpile. Each soil sample was collected utilizing a clean stainless-steel spoon and placed into a laboratory-supplied amber glass jar. The lid was then firmly tightened, and the sample was labeled with a unique sample identification and the time of collection. All soil samples were then immediately placed within a chilled cooler.

The samples were labeled, for example “PSTK-100-0814” where the prefix “PSTK” indicates that the sample was collected from the Peat Stockpile; “-100” indicates the unique sample number within the stockpile; and “-0814” indicates the month and day that the sample was collected.

Four of the samples were collected from the approximate locations and depths of the four samples that previously exhibited diesel range organics (DRO) concentrations that exceeded the ADEC cleanup criterion. Sample PSTK-100-0814 was collected from the approximate location as the previous Sample PSTK-12-1210. Sample PSTK-101-0814 was collected from the approximate location as the previous Sample PSTK-19-1210. Sample PSTK-102-0814 and Duplicate Sample PSTK-103-0814 were collected from the approximate location as the previous Sample PSTK-30-1210. Sample PSTK-104-0814 was collected from the approximate location as the previous Sample PSTK-62-1210. Samples PSTK-105-0814 and PSTK-106-0814 were collected from new locations within the peat stockpile. A site sketch map and the approximate depths of each sample are included in the field notes attached to this summary report.

The samples were hand delivered under standard chain of custody protocol to SGS North America in Anchorage, Alaska, which is an ADEC-approved laboratory. All soil samples were analyzed for diesel range organics (DRO) by Alaska Method 102. Copies of the Laboratory Analytical Data Report for Work Order 1194650 and the data quality control checklist for this laboratory work order are attached to this summary report.

Sample PSTK-105-0814 exhibited a concentration of DRO at 322 milligrams per kilograms (mg/Kg), which exceeds the ADEC cleanup criterion of 250 mg/Kg. The reported DRO concentrations for the other five samples (including the duplicate) ranged from 65.2 mg/Kg to 207

mg/Kg. Because the samples from this stockpile consisted of mainly of peat, we contacted SGS to get a copy of the chromatograms for the soil samples and requested an opinion from SGS's chemist on the origin of the DRO in these samples. Jillian Janssen, SGS Project Manager, indicated that "Based on the moisture content and the chromatogram pattern for sample PSTK-105-0814, this does appear to be biogenic. The pattern is quite similar for all samples on this work order." Copies of the chromatograms and the email correspondence with SGS are attached to this summary report. The analytical results are included in Table 1.

Based on these DRO concentrations and the biogenic chromatogram pattern for all soil samples, we are requesting ADEC's written approval to spread the peat stockpile on the subject property.

Sincerely

BGES, INC.

Prepared by:



Chris Pepe
Environmental Scientist I

Reviewed by:



Jayne Martin
Senior Environmental Scientist

Attachments:

- Table 1 – Analytical Results – Soil Samples (September 2019)
- Field Notes
- Laboratory Analytical Data
- Laboratory Data Quality Checklist
- Chromatograms and Email Correspondence with SGS

TABLE 1
10240 OLD SEWARD HIGHWAY
ANCHORAGE, AK
ANALYTICAL RESULTS - SOIL SAMPLES (SEPTEMBER 2019)

BGES, INC.

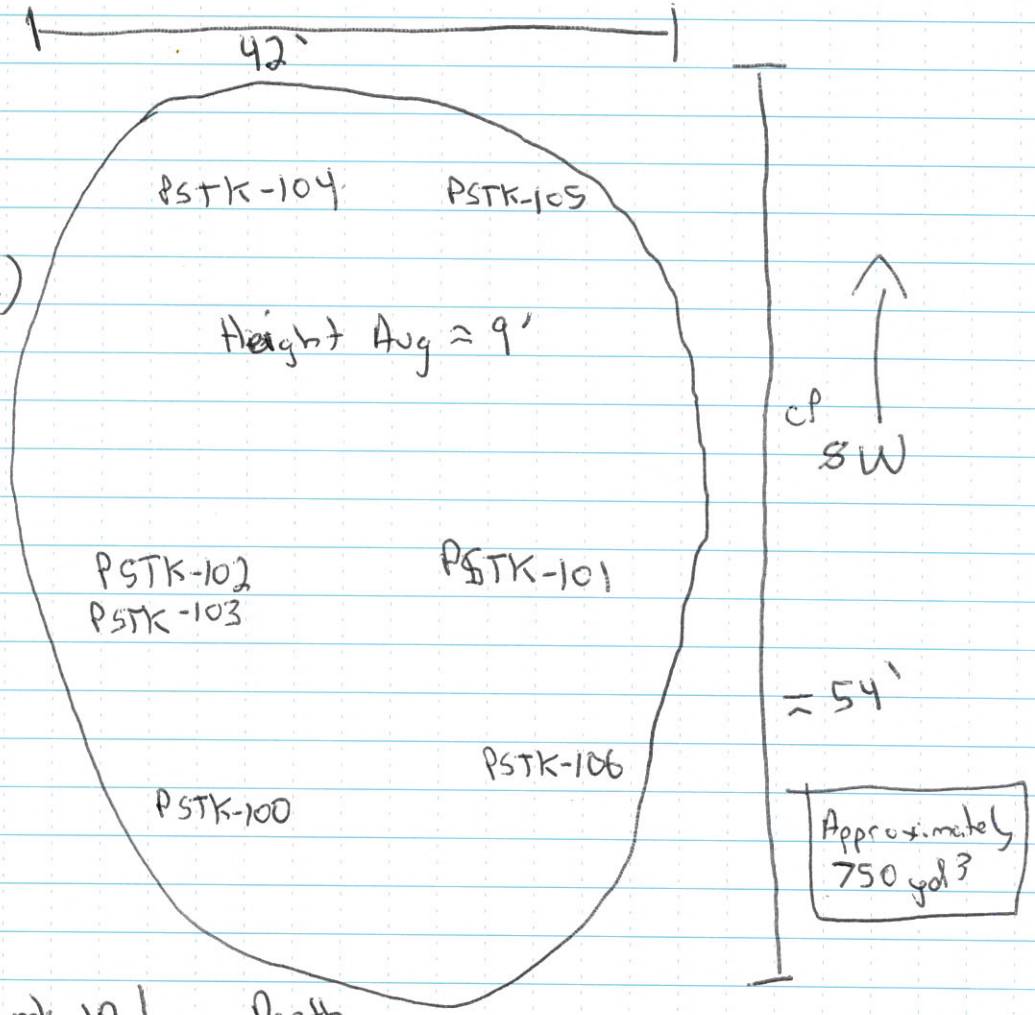
| Sample No. | Parameter | Results (mg/Kg) | LOQ(mg/Kg) | DL (mg/Kg) | ADEC Cleanup Criteria (mg/Kg) ¹ | Analytical Method |
|--|------------|--|------------|------------|--|-------------------|
| PSTK-100-0814 PID = 0 ppm Depth = 18-24 in. from top of pile | DRO | 65.2 | 24.9 | 7.72 | 250 | AK 102 |
| PSTK-101-0814 PID = 0 ppm Depth = 24 in. from top of pile | DRO | 138 | 33.5 | 10.4 | 250 | AK 102 |
| PSTK-102-0814 PID = 0 ppm Depth = 36 in. from top of pile | DRO | 136 | 27.6 | 8.55 | 250 | AK 102 |
| PSTK-103-0814 PID = 0 ppm Depth = 36 in. from top of pile Duplicate of PSTK-102-0814 DRO RPD = 41.4 % | DRO | 207 | 35.8 | 11.1 | 250 | AK 102 |
| PSTK-104-0814 PID = 0 ppm Depth = 24 in. from top of pile | DRO | 171 | 23.9 | 7.40 | 250 | AK 102 |
| PSTK-105-0814 PID = 0 ppm Depth = 30 in from top of pile | DRO | 322 | 49.7 | 15.40 | 250 | AK 102 |
| PSTK-106-0814 PID = 0 ppm Depth = 36 in. from top of pile | DRO | 141 | 27.9 | 8.65 | 250 | AK 102 |
| ¹ Soil cleanup criteria for DRO are obtained from Table B2, Method 2, Under 40-Inch Zone (referring to annual precipitation), Migration to Groundwater values (October 27, 2018). AAC = Alaska Administrative Code; AK = Alaska Method; ADEC = Alaska Department of Environmental Conservation; mg/Kg = milligrams per kilogram; PID = photoionization detector; ppm = parts per million; DRO = diesel range organics; in. = inches; DL = detection limit; LOQ = Limit of Quantitation; RPD = relative percent difference; | | | | | | |
| Bold | | = The value exceeds the applicable ADEC cleanup criterion. | | | | |

FIELD NOTES

- 14:00 - Chris and Jayne with BGES arrived on site at Alaska Rubber Supply at 10240 old Seward Highway
- Located areas within the stockpile that was sampled in 2014.
 - Collected 6 soil samples plus 1 duplicate. Four soil samples collected from soil in areas previously sampled in 2014.

Sample locations

| Sample ID | PID |
|----------------------------|-----|
| PSTK-100-0814 | Ø |
| PSTK-101-0814 | Ø |
| PSTK-102-0814 | Ø |
| PSTK-103-0814 (dup of 102) | Ø |
| PSTK-104-0814 | Ø |
| PSTK-105-0814 | Ø |
| PSTK-106-0814 | Ø |



| SAMPLE ID | Previous Sample ID | Depth |
|---------------|--------------------|------------------------------------|
| PSTK-100-0814 | PSTK-12-1210 | 18"-2' from top of pile |
| PSTK-101-0814 | PSTK-19-1210 | mid point ≈ 3' 2' from top of pile |
| PSTK-102-0814 | PSTK-30-1210 | mid point ≈ 3' from top of pile |
| PSTK-103-0814 | " ↓ " | " ↓ " |
| PSTK-104-0814 | PSTK-62-1210 | 2' from top of pile |
| PSTK-105-0814 | New location | mid point ≈ 2.5' from top of pile |
| PSTK-106-0814 | New location | mid point ≈ 3.0' from top of pile |

16:30 Chris off site

LABORATORY ANALYTICAL DATA

Laboratory Report of Analysis

To: BGES Inc.
1042 E. 6th Ave.,
Anchorage, AK 99501
(907)644-2900

Report Number: **1194650**

Client Project: **ARG**

Dear Jayne Martin,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Jillian at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.


SGS North America, Inc.
Environmental Services - Alaska Division
Project Manager

Jillian Vlahovich
2019.08.20
08:12:55 -08'00'

Jillian Janssen
Project Manager
Jillian.Janssen@sgs.com

Date

Case Narrative

SGS Client: **BGES Inc.**
SGS Project: **1194650**
Project Name/Site: **ARG**
Project Contact: **Jayne Martin**

Refer to sample receipt form for information on sample condition.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

Print Date: 08/19/2019 3:30:47PM

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification, and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

| | |
|--------------------|---|
| * | The analyte has exceeded allowable regulatory or control limits. |
| ! | Surrogate out of control limits. |
| B | Indicates the analyte is found in a blank associated with the sample. |
| CCV/CVA/CVB | Continuing Calibration Verification |
| CCCV/CVC/CVCA/CVCB | Closing Continuing Calibration Verification |
| CL | Control Limit |
| DF | Analytical Dilution Factor |
| DL | Detection Limit (i.e., maximum method detection limit) |
| E | The analyte result is above the calibrated range. |
| GT | Greater Than |
| IB | Instrument Blank |
| ICV | Initial Calibration Verification |
| J | The quantitation is an estimation. |
| LCS(D) | Laboratory Control Spike (Duplicate) |
| LLQC/LLIQC | Low Level Quantitation Check |
| LOD | Limit of Detection (i.e., 1/2 of the LOQ) |
| LOQ | Limit of Quantitation (i.e., reporting or practical quantitation limit) |
| LT | Less Than |
| MB | Method Blank |
| MS(D) | Matrix Spike (Duplicate) |
| ND | Indicates the analyte is not detected. |
| RPD | Relative Percent Difference |
| U | Indicates the analyte was analyzed for but not detected. |

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

Sample Summary

| <u>Client Sample ID</u> | <u>Lab Sample ID</u> | <u>Collected</u> | <u>Received</u> | <u>Matrix</u> |
|-------------------------|----------------------|------------------|-----------------|-------------------------|
| PSTK-100-0814 | 1194650001 | 08/14/2019 | 08/14/2019 | Soil/Solid (dry weight) |
| PSTK-101-0814 | 1194650002 | 08/14/2019 | 08/14/2019 | Soil/Solid (dry weight) |
| PSTK-102-0814 | 1194650003 | 08/14/2019 | 08/14/2019 | Soil/Solid (dry weight) |
| PSTK-103-0814 | 1194650004 | 08/14/2019 | 08/14/2019 | Soil/Solid (dry weight) |
| PSTK-104-0814 | 1194650005 | 08/14/2019 | 08/14/2019 | Soil/Solid (dry weight) |
| PSTK-105-0814 | 1194650006 | 08/14/2019 | 08/14/2019 | Soil/Solid (dry weight) |
| PSTK-106-0814 | 1194650007 | 08/14/2019 | 08/14/2019 | Soil/Solid (dry weight) |

| <u>Method</u> | <u>Method Description</u> |
|---------------|---------------------------|
| AK102 | Diesel Range Organics (S) |
| SM21 2540G | Percent Solids SM2540G |

Print Date: 08/19/2019 3:30:49PM

Detectable Results Summary

| | | | |
|--|-----------------------|---------------|--------------|
| Client Sample ID: PSTK-100-0814 | | | |
| Lab Sample ID: 1194650001 | <u>Parameter</u> | <u>Result</u> | <u>Units</u> |
| Semivolatile Organic Fuels | Diesel Range Organics | 65.2 | mg/Kg |
| Client Sample ID: PSTK-101-0814 | | | |
| Lab Sample ID: 1194650002 | <u>Parameter</u> | <u>Result</u> | <u>Units</u> |
| Semivolatile Organic Fuels | Diesel Range Organics | 138 | mg/Kg |
| Client Sample ID: PSTK-102-0814 | | | |
| Lab Sample ID: 1194650003 | <u>Parameter</u> | <u>Result</u> | <u>Units</u> |
| Semivolatile Organic Fuels | Diesel Range Organics | 136 | mg/Kg |
| Client Sample ID: PSTK-103-0814 | | | |
| Lab Sample ID: 1194650004 | <u>Parameter</u> | <u>Result</u> | <u>Units</u> |
| Semivolatile Organic Fuels | Diesel Range Organics | 207 | mg/Kg |
| Client Sample ID: PSTK-104-0814 | | | |
| Lab Sample ID: 1194650005 | <u>Parameter</u> | <u>Result</u> | <u>Units</u> |
| Semivolatile Organic Fuels | Diesel Range Organics | 171 | mg/Kg |
| Client Sample ID: PSTK-105-0814 | | | |
| Lab Sample ID: 1194650006 | <u>Parameter</u> | <u>Result</u> | <u>Units</u> |
| Semivolatile Organic Fuels | Diesel Range Organics | 322 | mg/Kg |
| Client Sample ID: PSTK-106-0814 | | | |
| Lab Sample ID: 1194650007 | <u>Parameter</u> | <u>Result</u> | <u>Units</u> |
| Semivolatile Organic Fuels | Diesel Range Organics | 141 | mg/Kg |

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Results of PSTK-100-0814

Client Sample ID: PSTK-100-0814
Client Project ID: ARG
Lab Sample ID: 1194650001
Lab Project ID: 1194650

Collection Date: 08/14/19 14:30
Received Date: 08/14/19 17:07
Matrix: Soil/Solid (dry weight)
Solids (%):80.2
Location:

Results by Semivolatile Organic Fuels

| <u>Parameter</u> | <u>Result Qual</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> | <u>DF</u> | <u>Allowable Limits</u> | <u>Date Analyzed</u> |
|-----------------------|--------------------|---------------|-----------|--------------|-----------|-------------------------|----------------------|
| Diesel Range Organics | 65.2 | 24.9 | 7.72 | mg/Kg | 1 | | 08/16/19 11:20 |
| Surrogates | | | | | | | |
| 5a Androstane (surr) | 92.6 | 50-150 | | % | 1 | | 08/16/19 11:20 |

Batch Information

Analytical Batch: XFC15248
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 08/16/19 11:20
Container ID: 1194650001-A

Prep Batch: XXX42026
Prep Method: SW3550C
Prep Date/Time: 08/15/19 16:48
Prep Initial Wt./Vol.: 30.056 g
Prep Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:51PM



Results of PSTK-101-0814

Client Sample ID: PSTK-101-0814
Client Project ID: ARG
Lab Sample ID: 1194650002
Lab Project ID: 1194650

Collection Date: 08/14/19 14:35
Received Date: 08/14/19 17:07
Matrix: Soil/Solid (dry weight)
Solids (%):59.0
Location:

Results by Semivolatile Organic Fuels

| <u>Parameter</u> | <u>Result Qual</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> | <u>DF</u> | <u>Allowable Limits</u> | <u>Date Analyzed</u> |
|-----------------------|--------------------|---------------|-----------|--------------|-----------|-------------------------|----------------------|
| Diesel Range Organics | 138 | 33.5 | 10.4 | mg/Kg | 1 | | 08/16/19 11:29 |
| Surrogates | | | | | | | |
| 5a Androstane (surr) | 90.3 | 50-150 | | % | 1 | | 08/16/19 11:29 |

Batch Information

Analytical Batch: XFC15248
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 08/16/19 11:29
Container ID: 1194650002-A

Prep Batch: XXX42026
Prep Method: SW3550C
Prep Date/Time: 08/15/19 16:48
Prep Initial Wt./Vol.: 30.373 g
Prep Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:51PM



Results of PSTK-102-0814

Client Sample ID: **PSTK-102-0814**
Client Project ID: **ARG**
Lab Sample ID: 1194650003
Lab Project ID: 1194650

Collection Date: 08/14/19 14:40
Received Date: 08/14/19 17:07
Matrix: Soil/Solid (dry weight)
Solids (%):72.4
Location:

Results by Semivolatile Organic Fuels

| <u>Parameter</u> | <u>Result Qual</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> | <u>DF</u> | <u>Allowable Limits</u> | <u>Date Analyzed</u> |
|-----------------------|--------------------|---------------|-----------|--------------|-----------|-------------------------|----------------------|
| Diesel Range Organics | 136 | 27.6 | 8.55 | mg/Kg | 1 | | 08/16/19 11:39 |
| Surrogates | | | | | | | |
| 5a Androstane (surr) | 99.5 | 50-150 | | % | 1 | | 08/16/19 11:39 |

Batch Information

Analytical Batch: XFC15248
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 08/16/19 11:39
Container ID: 1194650003-A

Prep Batch: XXX42026
Prep Method: SW3550C
Prep Date/Time: 08/15/19 16:48
Prep Initial Wt./Vol.: 30.017 g
Prep Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:51PM



Results of PSTK-103-0814

Client Sample ID: **PSTK-103-0814**
Client Project ID: **ARG**
Lab Sample ID: 1194650004
Lab Project ID: 1194650

Collection Date: 08/14/19 14:45
Received Date: 08/14/19 17:07
Matrix: Soil/Solid (dry weight)
Solids (%):55.3
Location:

Results by Semivolatile Organic Fuels

| <u>Parameter</u> | <u>Result Qual</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> | <u>DF</u> | <u>Allowable Limits</u> | <u>Date Analyzed</u> |
|-----------------------|--------------------|---------------|-----------|--------------|-----------|-------------------------|----------------------|
| Diesel Range Organics | 207 | 35.8 | 11.1 | mg/Kg | 1 | | 08/16/19 11:49 |
| Surrogates | | | | | | | |
| 5a Androstane (surr) | 94.9 | 50-150 | | % | 1 | | 08/16/19 11:49 |

Batch Information

Analytical Batch: XFC15248
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 08/16/19 11:49
Container ID: 1194650004-A

Prep Batch: XXX42026
Prep Method: SW3550C
Prep Date/Time: 08/15/19 16:48
Prep Initial Wt./Vol.: 30.339 g
Prep Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:51PM



Results of PSTK-104-0814

Client Sample ID: **PSTK-104-0814**
Client Project ID: **ARG**
Lab Sample ID: 1194650005
Lab Project ID: 1194650

Collection Date: 08/14/19 14:50
Received Date: 08/14/19 17:07
Matrix: Soil/Solid (dry weight)
Solids (%):83.4
Location:

Results by Semivolatile Organic Fuels

| <u>Parameter</u> | <u>Result Qual</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> | <u>DF</u> | <u>Allowable Limits</u> | <u>Date Analyzed</u> |
|-----------------------|--------------------|---------------|-----------|--------------|-----------|-------------------------|----------------------|
| Diesel Range Organics | 171 | 23.9 | 7.40 | mg/Kg | 1 | | 08/16/19 11:59 |
| Surrogates | | | | | | | |
| 5a Androstane (surr) | 88.9 | 50-150 | | % | 1 | | 08/16/19 11:59 |

Batch Information

Analytical Batch: XFC15248
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 08/16/19 11:59
Container ID: 1194650005-A

Prep Batch: XXX42026
Prep Method: SW3550C
Prep Date/Time: 08/15/19 16:48
Prep Initial Wt./Vol.: 30.134 g
Prep Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:51PM

Results of PSTK-105-0814

Client Sample ID: **PSTK-105-0814**
 Client Project ID: **ARG**
 Lab Sample ID: 1194650006
 Lab Project ID: 1194650

Collection Date: 08/14/19 14:55
 Received Date: 08/14/19 17:07
 Matrix: Soil/Solid (dry weight)
 Solids (%):39.6
 Location:

Results by Semivolatile Organic Fuels

| <u>Parameter</u> | <u>Result Qual</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> | <u>DF</u> | <u>Allowable Limits</u> | <u>Date Analyzed</u> |
|-----------------------|--------------------|---------------|-----------|--------------|-----------|-------------------------|----------------------|
| Diesel Range Organics | 322 | 49.7 | 15.4 | mg/Kg | 1 | | 08/16/19 12:08 |
| Surrogates | | | | | | | |
| 5a Androstane (surr) | 87.5 | 50-150 | | % | 1 | | 08/16/19 12:08 |

Batch Information

Analytical Batch: XFC15248
 Analytical Method: AK102
 Analyst: VDL
 Analytical Date/Time: 08/16/19 12:08
 Container ID: 1194650006-A

Prep Batch: XXX42026
 Prep Method: SW3550C
 Prep Date/Time: 08/15/19 16:48
 Prep Initial Wt./Vol.: 30.472 g
 Prep Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:51PM



Results of PSTK-106-0814

Client Sample ID: **PSTK-106-0814**
Client Project ID: **ARG**
Lab Sample ID: 1194650007
Lab Project ID: 1194650

Collection Date: 08/14/19 14:59
Received Date: 08/14/19 17:07
Matrix: Soil/Solid (dry weight)
Solids (%):71.2
Location:

Results by Semivolatile Organic Fuels

| <u>Parameter</u> | <u>Result</u> | <u>Qual</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> | <u>DF</u> | <u>Allowable Limits</u> | <u>Date Analyzed</u> |
|-----------------------|---------------|-------------|---------------|-----------|--------------|-----------|-------------------------|----------------------|
| Diesel Range Organics | 141 | | 27.9 | 8.65 | mg/Kg | 1 | | 08/16/19 12:18 |
| Surrogates | | | | | | | | |
| 5a Androstane (surr) | 92.4 | | 50-150 | | % | 1 | | 08/16/19 12:18 |

Batch Information

Analytical Batch: XFC15248
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 08/16/19 12:18
Container ID: 1194650007-A

Prep Batch: XXX42026
Prep Method: SW3550C
Prep Date/Time: 08/15/19 16:48
Prep Initial Wt./Vol.: 30.224 g
Prep Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:51PM



Method Blank

Blank ID: MB for HBN 1797935 [SPT/10854]
Blank Lab ID: 1525518

Matrix: Soil/Solid (dry weight)

QC for Samples:

1194650001, 1194650002, 1194650003, 1194650004, 1194650005, 1194650006, 1194650007

Results by SM21 2540G

| <u>Parameter</u> | <u>Results</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> |
|------------------|----------------|---------------|-----------|--------------|
| Total Solids | 99.9 | | | % |

Batch Information

Analytical Batch: SPT10854
Analytical Method: SM21 2540G
Instrument:
Analyst: MER
Analytical Date/Time: 8/14/2019 11:00:00PM

Print Date: 08/19/2019 3:30:53PM

Duplicate Sample Summary

Original Sample ID: 1194571002
Duplicate Sample ID: 1525522
QC for Samples:

Analysis Date: 08/14/2019 23:00
Matrix: Soil/Solid (dry weight)

Results by SM21 2540G

| <u>NAME</u> | <u>Original</u> | <u>Duplicate</u> | <u>Units</u> | <u>RPD (%)</u> | <u>RPD CL</u> |
|--------------|-----------------|------------------|--------------|----------------|---------------|
| Total Solids | 94.1 | 94.2 | % | 0.10 | (< 15) |

Batch Information

Analytical Batch: SPT10854
Analytical Method: SM21 2540G
Instrument:
Analyst: MER

Print Date: 08/19/2019 3:30:54PM

Duplicate Sample Summary

Original Sample ID: 1194621006

Duplicate Sample ID: 1525523

QC for Samples:

1194650001, 1194650002, 1194650003, 1194650004, 1194650005, 1194650006, 1194650007

Analysis Date: 08/14/2019 23:00

Matrix: Soil/Solid (dry weight)

Results by SM21 2540G

| <u>NAME</u> | <u>Original</u> | <u>Duplicate</u> | <u>Units</u> | <u>RPD (%)</u> | <u>RPD CL</u> |
|--------------|-----------------|------------------|--------------|----------------|---------------|
| Total Solids | 91.2 | 91.5 | % | 0.32 | (< 15) |

Batch Information

Analytical Batch: SPT10854

Analytical Method: SM21 2540G

Instrument:

Analyst: MER

Print Date: 08/19/2019 3:30:54PM

Method Blank

Blank ID: MB for HBN 1797979 [XXX/42026]
Blank Lab ID: 1525663

Matrix: Soil/Solid (dry weight)

QC for Samples:

1194650001, 1194650002, 1194650003, 1194650004, 1194650005, 1194650006, 1194650007

Results by AK102

| <u>Parameter</u> | <u>Results</u> | <u>LOQ/CL</u> | <u>DL</u> | <u>Units</u> |
|-----------------------|----------------|---------------|-----------|--------------|
| Diesel Range Organics | 10.0U | 20.0 | 6.20 | mg/Kg |
| Surrogates | | | | |
| 5a Androstane (surr) | 94.2 | 60-120 | | % |

Batch Information

Analytical Batch: XFC15248
Analytical Method: AK102
Instrument: Agilent 7890B R
Analyst: VDL
Analytical Date/Time: 8/16/2019 8:34:00AM

Prep Batch: XXX42026
Prep Method: SW3550C
Prep Date/Time: 8/15/2019 4:48:43PM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:56PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1194650 [XXX42026]
 Blank Spike Lab ID: 1525664
 Date Analyzed: 08/16/2019 08:44

Spike Duplicate ID: LCSD for HBN 1194650
 [XXX42026]
 Spike Duplicate Lab ID: 1525665
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1194650001, 1194650002, 1194650003, 1194650004, 1194650005, 1194650006, 1194650007

Results by AK102

| Parameter | Blank Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | CL | RPD (%) | RPD CL |
|-----------------------|---------------------|--------|---------|-------------------------|--------|---------|------------|---------|---------|
| | Spike | Result | Rec (%) | Spike | Result | Rec (%) | | | |
| Diesel Range Organics | 833 | 853 | 102 | 833 | 867 | 104 | (75-125) | 1.60 | (< 20) |
| Surrogates | | | | | | | | | |
| 5a Androstane (surr) | 16.7 | 102 | 102 | 16.7 | 103 | 103 | (60-120) | 0.16 | |

Batch Information

Analytical Batch: **XFC15248**
 Analytical Method: **AK102**
 Instrument: **Agilent 7890B R**
 Analyst: **VDL**

Prep Batch: **XXX42026**
 Prep Method: **SW3550C**
 Prep Date/Time: **08/15/2019 16:48**
 Spike Init Wt./Vol.: 833 mg/Kg Extract Vol: 5 mL
 Dupe Init Wt./Vol.: 833 mg/Kg Extract Vol: 5 mL

Print Date: 08/19/2019 3:30:57PM



1194650



SGS North America Inc. HAIN OF CUSTODY RECORD

Locations Nationwide

- Alaska
- New Jersey
- North Carolina
- West Virginia
- Maryland
- New York
- Indiana
- Kentucky

www.us.sgs.com

Section 1

CLIENT: BGES

CONTACT: Jayne Martin PHONE NO: 907 644-2900

PROJECT NAME: ARG PROJECT/PWSID/PERMIT#: _____

REPORTS TO: Jayne Martin E-MAIL: Jayne@BGESINC.com

INVOICE TO: Jayne Martin QUOTE #: _____ P.O. #: Open

Section 3

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Page 1 of 1

Section 2

| RESERVED for lab use. | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/MATRIX CODE | # | CONTAINER | Type | PRESERVATIVE | | | | | | | | | | REMARKS/LOC ID | | | | |
|-----------------------|--------------------------|----------------|--------------|--------------------|----------|-----------|----------|-------------------|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|
| | <u>① A PSTK-100-0814</u> | <u>8-14-19</u> | <u>14:30</u> | <u>S</u> | <u>1</u> | <u>G</u> | <u>X</u> | <u>DRO AK 102</u> | | | | | | | | | | | | | | |
| | <u>② A PSTK-101-0814</u> | <u>8-14-19</u> | <u>14:35</u> | <u>S</u> | <u>1</u> | <u>G</u> | <u>X</u> | | | | | | | | | | | | | | | |
| | <u>③ A PSTK-102-0814</u> | <u>8-14-19</u> | <u>14:40</u> | <u>S</u> | <u>1</u> | <u>G</u> | <u>X</u> | | | | | | | | | | | | | | | |
| | <u>④ A PSTK-103-0814</u> | <u>8-14-19</u> | <u>14:45</u> | <u>S</u> | <u>1</u> | <u>G</u> | <u>X</u> | | | | | | | | | | | | | | | |
| | <u>⑤ A PSTK-104-0814</u> | <u>8-14-19</u> | <u>14:50</u> | <u>S</u> | <u>1</u> | <u>G</u> | <u>X</u> | | | | | | | | | | | | | | | |
| | <u>⑥ A PSTK-105-0814</u> | <u>8-14-19</u> | <u>14:55</u> | <u>S</u> | <u>1</u> | <u>G</u> | <u>X</u> | | | | | | | | | | | | | | | |
| | <u>⑦ A PSTK-106-0814</u> | <u>8-14-19</u> | <u>14:59</u> | <u>S</u> | <u>1</u> | <u>G</u> | <u>X</u> | | | | | | | | | | | | | | | |

Section 4

Relinquished By: (1) [Signature] Date 8-14-19 Time 16:30 Received By: [Signature]

Relinquished By: (2) [Signature] Date 8-14-19 Time 17:06 Received By: _____

Relinquished By: (3) _____ Date _____ Time _____ Received By: _____

Relinquished By: (4) _____ Date 8.14.19 Time 17:07 Received For Laboratory By: [Signature]

Section 4 DOD Project? Yes No

Cooler ID: _____

Requested Turnaround Time and/or Special Instructions: Standard Turnaround profile: 334626 JK

Temp Blank °C: 10.6 ± 0.21

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

(See attached Sample Receipt Form) (See attached Sample Receipt Form)



e-Sample Receipt Form

SGS Workorder #:

1194650



1 1 9 4 6 5 0

| Review Criteria | | Condition (Yes, No, N/A) | Exceptions Noted below | |
|---|-----|--|---|----------------|
| Chain of Custody / Temperature Requirements | | N/A | Exemption permitted if sampler hand carries/delivers. | |
| Were Custody Seals intact? Note # & location | N/A | Absent | | |
| COC accompanied samples? | Yes | | | |
| DOD: Were samples received in COC corresponding coolers? | N/A | | | |
| <input checked="" type="checkbox"/> Yes **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required Temperature blank compliant* (i.e., 0-6 °C after CF)? | N/A | Cooler ID: 1 | @ 10.6 °C | Therm. ID: D21 |
| | | Cooler ID: | @ | °C Therm. ID: |
| | | Cooler ID: | @ | °C Therm. ID: |
| | | Cooler ID: | @ | °C Therm. ID: |
| | | Cooler ID: | @ | °C Therm. ID: |
| | | Cooler ID: | @ | °C Therm. ID: |
| *If >6°C, were samples collected <8 hours ago? | Yes | | | |
| If <0°C, were sample containers ice free? | N/A | | | |
| Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed. | | | | |
| Holding Time / Documentation / Sample Condition Requirements | | Note: Refer to form F-083 "Sample Guide" for specific holding times. | | |
| Were samples received within holding time? | Yes | | | |
| Do samples match COC** (i.e., sample IDs, dates/times collected)? **Note: If times differ <1hr, record details & login per COC. ***Note: If sample information on containers differs from COC, SGS will default to COC information | Yes | | | |
| Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)) | Yes | | | |
| Were proper containers (type/mass/volume/preservative***) used? | Yes | N/A | ***Exemption permitted for metals (e.g, 200.8/6020A). | |
| Volatile / LL-Hg Requirements | | | | |
| Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples? | N/A | | | |
| Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)? | N/A | | | |
| Were all soil VOAs field extracted with MeOH+BFB? | N/A | | | |
| Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality. | | | | |
| Additional notes (if applicable): | | | | |
| | | | | |



Sample Containers and Preservatives

| <u>Container Id</u> | <u>Preservative</u> | <u>Container Condition</u> | <u>Container Id</u> | <u>Preservative</u> | <u>Container Condition</u> |
|---------------------|--------------------------|----------------------------|---------------------|---------------------|----------------------------|
| 1194650001-A | No Preservative Required | OK | | | |
| 1194650002-A | No Preservative Required | OK | | | |
| 1194650003-A | No Preservative Required | OK | | | |
| 1194650004-A | No Preservative Required | OK | | | |
| 1194650005-A | No Preservative Required | OK | | | |
| 1194650006-A | No Preservative Required | OK | | | |
| 1194650007-A | No Preservative Required | OK | | | |

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM - The container was received damaged.

FR - The container was received frozen and not usable for Bacteria or BOD analyses.

IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.

NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

LABORATORY DATA QUALITY CHECKLIST

Laboratory Data Review Checklist

Completed By:

Chris Pepe

Title:

Environmental Scientist I

Date:

9/5/2019

CS Report Name:

Summary Report – Request to Reuse Peat/Soil Stockpile at 10240 Old Seward Highway

Report Date:

N/A

Consultant Firm:

BGES, Inc.

Laboratory Name:

SGS, Inc.

Laboratory Report Number:

1194650

ADEC File Number:

26086

Hazard Identification Number:

2100.38.543

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and
- perform
- all of the submitted sample analyses?

 Yes No

Comments:

- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

 Yes No

Comments:

N/A

2. Chain of Custody (CoC)

- a. CoC information completed, signed, and dated (including released/received by)?

 Yes No

Comments:

- b. Correct Analyses requested?

 Yes No

Comments:

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

 Yes No

Comments:

The sample cooler arrived at the laboratory with a measured temperature blank of 10.6 degrees Celsius, which exceeds the prescribed optimal temperature range of 0 to 6°C. However, because the sample cooler arrived within two hours of sample collection, there is a reduced potential for contaminant concentration loss within the samples because of natural attenuation. For this reason, it is our opinion that this quality control (QC) failure does not affect the acceptability of the data for their intended use.

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

 Yes No

Comments:

Not applicable. The soil samples were only analyzed for DRO which does not require preservation using an acid or methanol.

- c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

 Yes No

Comments:

No irregularities were identified.

- d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

Yes No

Comments:

No discrepancies were noted.

- e. Data quality or usability affected?

Comments:

N/A

4. Case Narrative

- a. Present and understandable?

Yes No

Comments:

- b. Discrepancies, errors, or QC failures identified by the lab?

Yes No

Comments:

No discrepancies, errors, or QC failures were identified by the lab regarding this data package

- c. Were all corrective actions documented?

Yes No

Comments:

- d. What is the effect on data quality/usability according to the case narrative?

Comments:

N/A

5. Samples Results

- a. Correct analyses performed/reported as requested on COC?

Yes No

Comments:

- b. All applicable holding times met?

Yes No

Comments:

c. All soils reported on a dry weight basis?

Yes No

Comments:

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

Yes No

Comments:

e. Data quality or usability affected?

Yes No

Comments:

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes No

Comments:

ii. All method blank results less than limit of quantitation (LOQ)?

Yes No

Comments:

iii. If above LOQ, what samples are affected?

Comments:

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No

Comments:

v. Data quality or usability affected?

Comments:

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

- i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

 Yes No

Comments:

- ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

 Yes No

Comments:

The samples on this work order were not analyzed for metals or inorganics.

- iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

 Yes No

Comments:

- iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

 Yes No

Comments:

- v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

N/A

- vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

 Yes No

Comments:

N/A

- vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

N/A

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

Yes No

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes No

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

Yes No

Comments:

N/A

iv. Data quality or usability affected?

Comments:

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes No

Comments:

Samples were only analyzed for DRO. No trip blank was submitted for analysis.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes No

Comments:

N/A

iii. All results less than LOQ?

Yes No

Comments:

N/A

iv. If above LOQ, what samples are affected?

Comments:

N/A

v. Data quality or usability affected?

Comments:

N/A

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes No

Comments:

ii. Submitted blind to lab?

Yes No

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

Yes No

Comments:

Sample PTSK-103-0814 is a duplicate of Sample PSTK-102-0814 and was collected to evaluate field sampling precision. The RPD between the reported concentrations of DRO was 41.4 percent, which is within the acceptable limit of 50 percent. This indicates relatively good field sampling precision with respect to this analyte.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

No, data quality not affected.

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below).

Yes No Not Applicable

Decontamination and equipment blanks were not part of the approved scope of work for this project.

i. All results less than LOQ?

Yes No

Comments:

N/A

ii. If above LOQ, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected?

Comments:

N/A

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes No

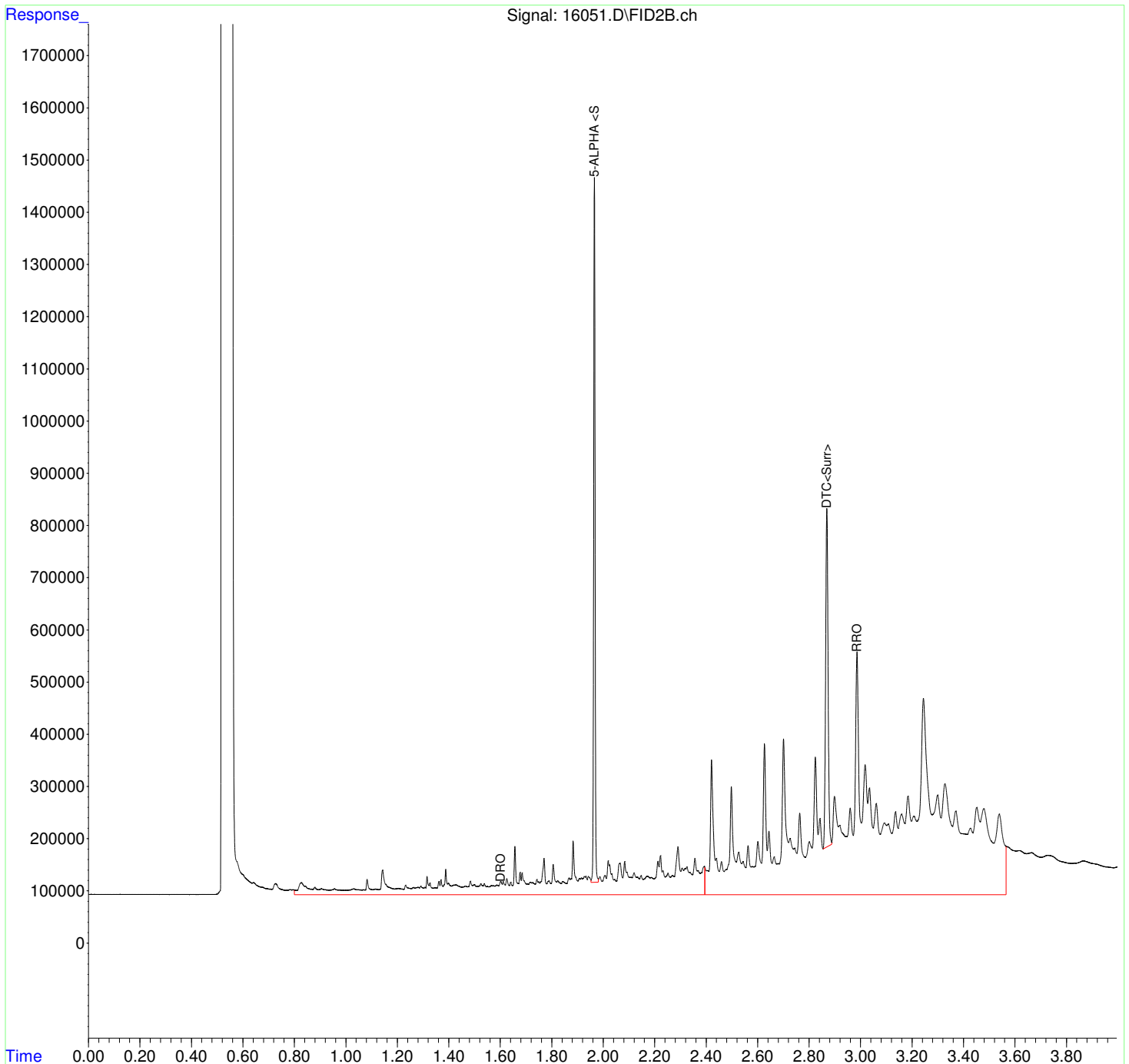
Comments:

**CHROMATOGRAMS AND
EMAIL CORRESPONDENCE WITH SGS**

Data Path : Z:\2019\08\SF\DATA\081619.SEC\
 Data File : 16051.D
 Signal(s) : FID2B.ch
 Acq On : 16 Aug 2019 11:20 am
 Operator : VDL
 Sample : 1194650001
 Misc :
 ALS Vial : 116 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Aug 19 10:23:55 2019
 Quant Method : Z:\2019\08\SF\METHOD\SFR2019-0815.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri Aug 16 09:58:38 2019
 Response via : Initial Calibration
 Integrator: ChemStation

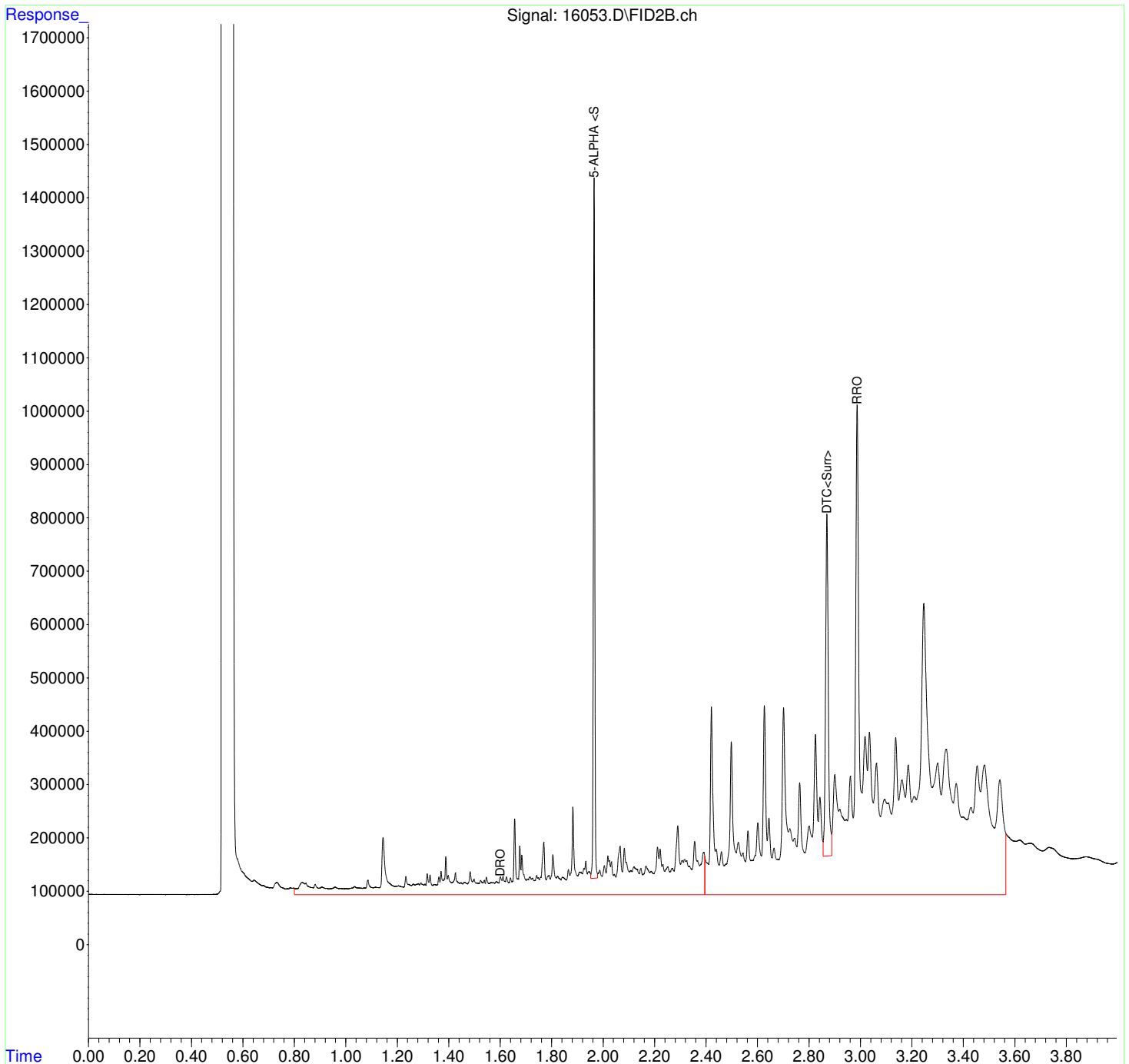
Volume Inj. :
 Signal Phase :
 Signal Info :



Data Path : Z:\2019\08\SF\DATA\081619.SEC\
 Data File : 16053.D
 Signal(s) : FID2B.ch
 Acq On : 16 Aug 2019 11:29 am
 Operator : VDL
 Sample : 1194650002
 Misc :
 ALS Vial : 117 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Aug 19 10:26:30 2019
 Quant Method : Z:\2019\08\SF\METHOD\SFR2019-0815.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri Aug 16 09:58:38 2019
 Response via : Initial Calibration
 Integrator: ChemStation

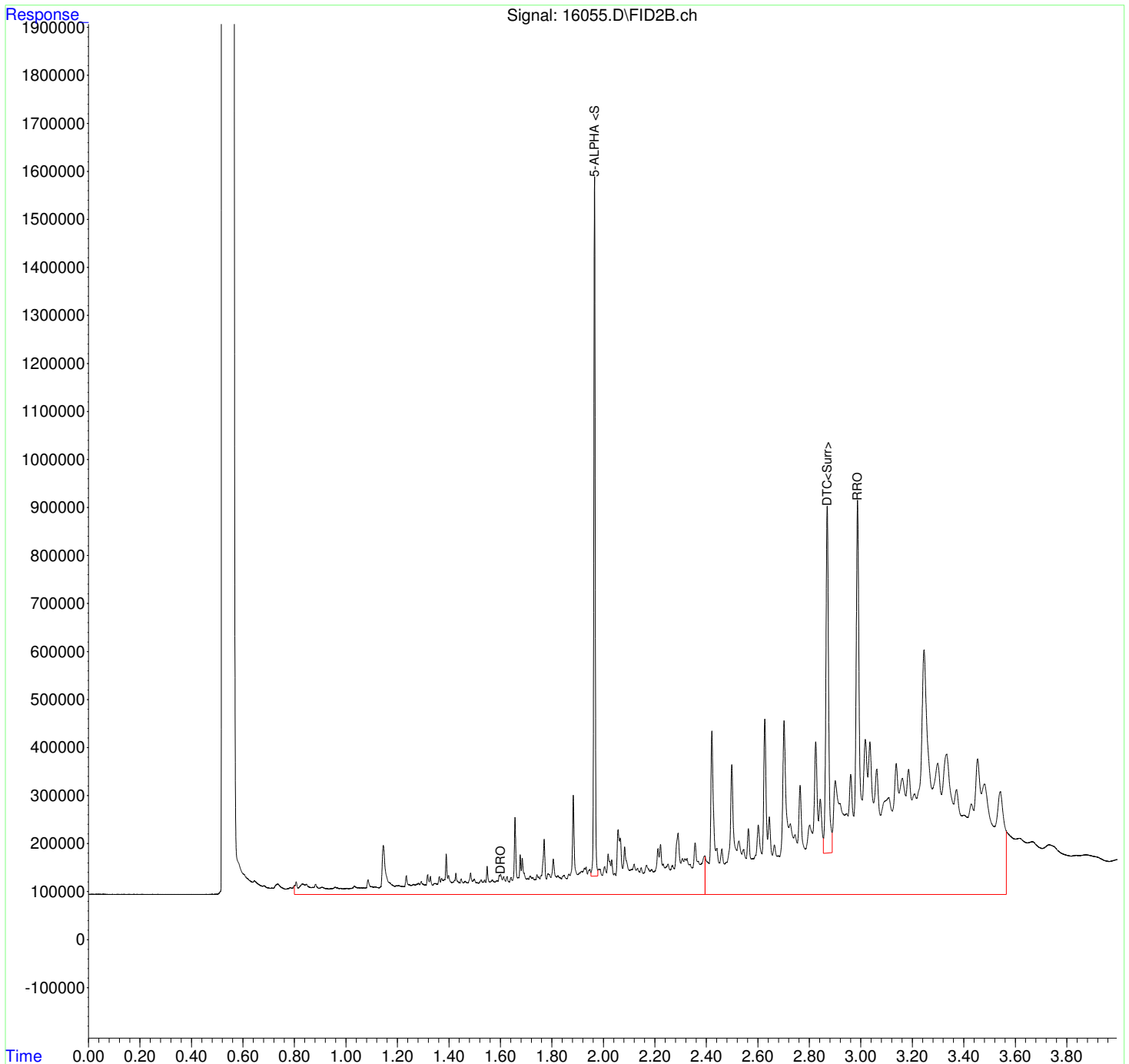
Volume Inj. :
 Signal Phase :
 Signal Info :



Data Path : Z:\2019\08\SF\DATA\081619.SEC\
 Data File : 16055.D
 Signal(s) : FID2B.ch
 Acq On : 16 Aug 2019 11:39 am
 Operator : VDL
 Sample : 1194650003
 Misc :
 ALS Vial : 118 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Aug 19 10:25:03 2019
 Quant Method : Z:\2019\08\SF\METHOD\SFR2019-0815.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri Aug 16 09:58:38 2019
 Response via : Initial Calibration
 Integrator: ChemStation

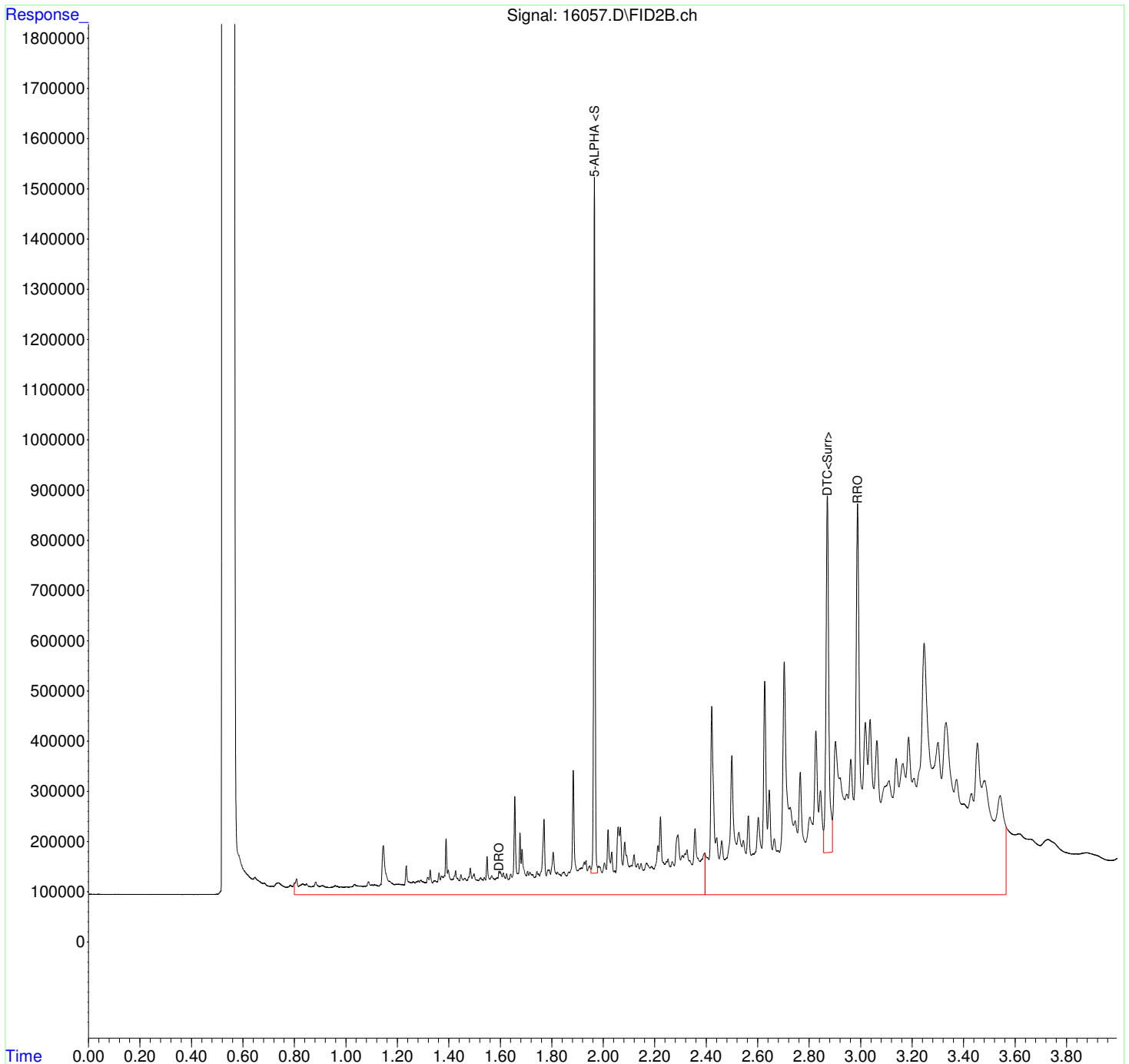
Volume Inj. :
 Signal Phase :
 Signal Info :



Data Path : Z:\2019\08\SF\DATA\081619.SEC\
 Data File : 16057.D
 Signal(s) : FID2B.ch
 Acq On : 16 Aug 2019 11:49 am
 Operator : VDL
 Sample : 1194650004
 Misc :
 ALS Vial : 119 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Aug 19 10:26:50 2019
 Quant Method : Z:\2019\08\SF\METHOD\SFR2019-0815.M
 Quant Title : DRO/RRO by Method AK 102/103
 QLast Update : Fri Aug 16 09:58:38 2019
 Response via : Initial Calibration
 Integrator: ChemStation

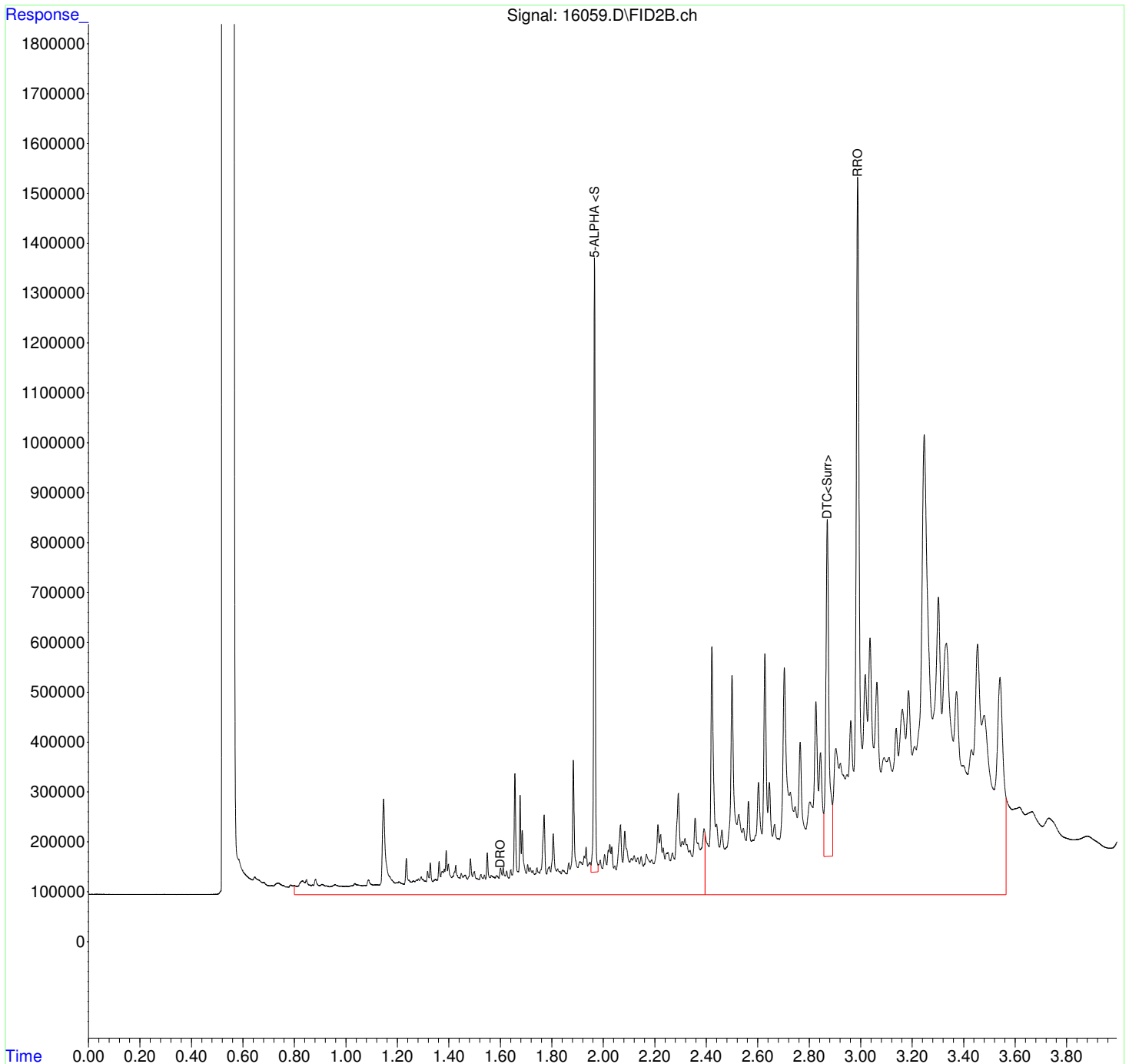
Volume Inj. :
 Signal Phase :
 Signal Info :



Data Path : Z:\2019\08\SF\DATA\081619.SEC\
Data File : 16059.D
Signal(s) : FID2B.ch
Acq On : 16 Aug 2019 11:59 am
Operator : VDL
Sample : 1194650005
Misc :
ALS Vial : 120 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 10:27:04 2019
Quant Method : Z:\2019\08\SF\METHOD\SFR2019-0815.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri Aug 16 09:58:38 2019
Response via : Initial Calibration
Integrator: ChemStation

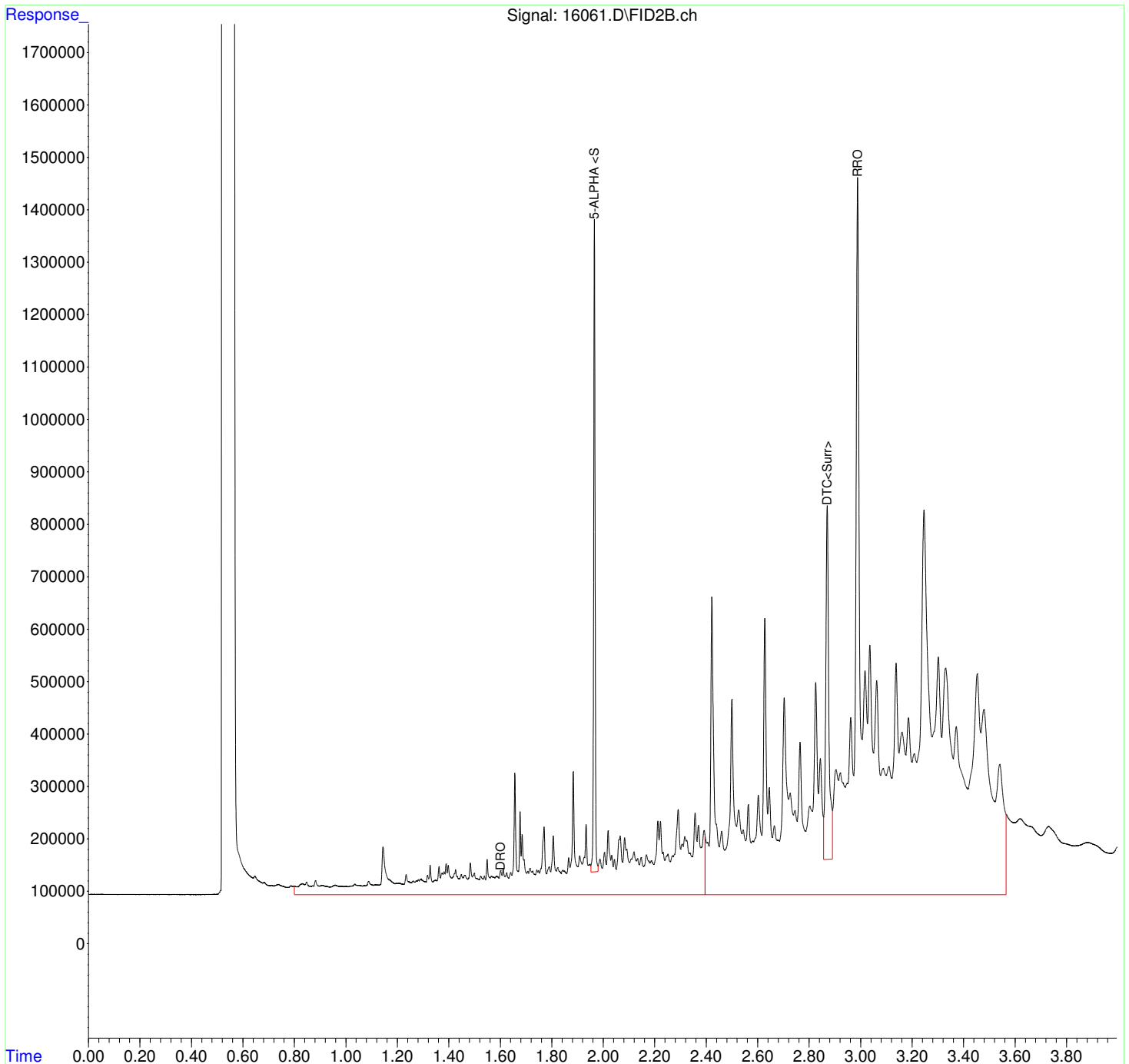
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\2019\08\SF\DATA\081619.SEC\
Data File : 16061.D
Signal(s) : FID2B.ch
Acq On : 16 Aug 2019 12:08 pm
Operator : VDL
Sample : 1194650006
Misc :
ALS Vial : 121 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 10:27:15 2019
Quant Method : Z:\2019\08\SF\METHOD\SFR2019-0815.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri Aug 16 09:58:38 2019
Response via : Initial Calibration
Integrator: ChemStation

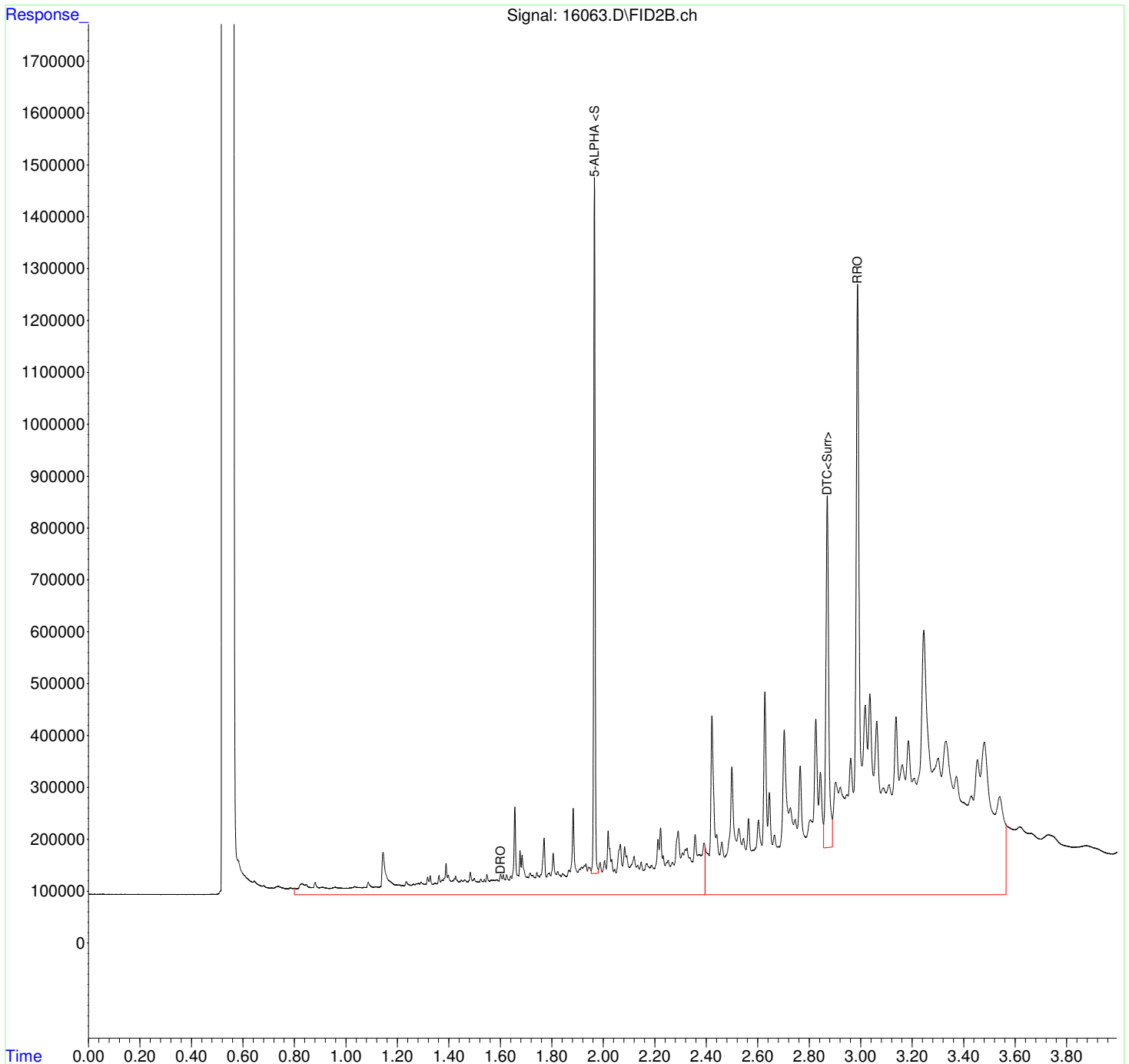
Volume Inj. :
Signal Phase :
Signal Info :



Data Path : Z:\2019\08\SF\DATA\081619.SEC\
Data File : 16063.D
Signal(s) : FID2B.ch
Acq On : 16 Aug 2019 12:18 pm
Operator : VDL
Sample : 1194650007
Misc :
ALS Vial : 122 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 10:27:29 2019
Quant Method : Z:\2019\08\SF\METHOD\SFR2019-0815.M
Quant Title : DRO/RRO by Method AK 102/103
QLast Update : Fri Aug 16 09:58:38 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Jayne Martin

From: Janssen, Jillian (Anchorage) <Jillian.Janssen@sgs.com>
Sent: Friday, August 30, 2019 10:07 AM
To: Jayne Martin
Subject: RE: [EXTERNAL] WO#1194650
Attachments: 1194650_DRO chromatograms.pdf

Hi Jayne,

I looked at the results this AM and I should have been able to tell you this without talking it over with Steven! I did pull the chromatograms for you and confirmed with Steven. Based on the moisture content and the chromatogram pattern for sample PSTK-105-0814, this does appear to be biogenic. The pattern is quite similar for all samples on this work order.

Thanks,

Jillian Janssen
Environment, Health, and Safety
Project Manager

Office: +00 1 907 562-2343
Direct: +00 1 907 550-3208

From: Jayne Martin <jayne@bgesinc.com>
Sent: Thursday, August 29, 2019 11:35 AM
To: Janssen, Jillian (Anchorage) <Jillian.Janssen@sgs.com>
Subject: [EXTERNAL] WO#1194650

***** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. *****

Hi Jillian,

For WO#1194650, please send me copies of the chromatograms for the DRO analyses.

Can you also have Steven Ede look at these chromatograms, specifically Client Sample ID PSTK-105-0814 and see if he can determine if the DRO concentrations are related to naturally occurring organics or manmade petroleum products?

Thanks,

Jayne Martin
Senior Environmental Scientist


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