



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

11 September 2015

Andy Hawk
BP America
380 Airport Rd.
Durango, CO 81303
RE: Table 910

Enclosed are the results of analyses for samples received by the laboratory on 09/02/15 15:47.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|--------------|---------------|--------|----------------|----------------|
| SS01 (0-12") | 1509042-01 | Solid | 09/02/15 12:50 | 09/02/15 15:47 |
| SS02 (0-6") | 1509042-02 | Solid | 09/02/15 14:05 | 09/02/15 15:47 |
| SS02 (6-12") | 1509042-03 | Solid | 09/02/15 14:10 | 09/02/15 15:47 |
| SS03 (0-12") | 1509042-04 | Solid | 09/02/15 14:20 | 09/02/15 15:47 |
| SS04 (0-12") | 1509042-05 | Solid | 09/02/15 13:45 | 09/02/15 15:47 |
| SS05 (0-12") | 1509042-06 | Solid | 09/02/15 13:30 | 09/02/15 15:47 |
| SS06 (0-12") | 1509042-07 | Solid | 09/02/15 13:15 | 09/02/15 15:47 |
| SS07 (0-12") | 1509042-08 | Solid | 09/02/15 12:40 | 09/02/15 15:47 |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS01 (0-12")

1509042-01 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|--------------|------|--|--|---|---|----------|----------------|--|-----|
| % Dry Solids | 91.7 | | | % | 1 | 09/05/15 | EPA160.3/2540C | | MAJ |
|--------------|------|--|--|---|---|----------|----------------|--|-----|

Saturated Paste Extraction

| | | | | | | | | | |
|--------------|-------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium | 42.7 | 10.0 | 0.039 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| Conductivity | 268 | | | umhos/cm | 1 | 09/10/15 | ASA#9 10-3.3 | | LLG |
| Magnesium | <10.0 | 10.0 | 0.190 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| pH | 6.34 | | | pH Units | 1 | 09/10/15 | ASA#9 12-2.6 | | LLG |
| SAR | 0.21 | | | [blank] | 1 | 09/10/15 | Calculation | | JGS |
| Sodium | <20.0 | 20.0 | 0.041 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |

Total Metals by ICP

| | | | | | | | | | |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium | 180 | 1.00 | 0.191 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Cadmium | <5.00 | 5.00 | 0.117 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Chromium | 13.3 | 5.00 | 0.636 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Copper | 18.1 | 2.00 | 0.650 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Lead | 19.6 | 10.0 | 1.84 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Nickel | 14.5 | 5.00 | 1.55 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Selenium | <20.0 | 20.0 | 3.61 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Silver | <5.00 | 5.00 | 0.231 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Zinc | 62.9 | 5.00 | 0.792 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |

Total Metals by ICPMS

| | | | | | | | | | |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 2.83 | 0.500 | 0.260 | mg/kg dry | 1000 | 09/08/15 | 6020 A | | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

Total Mercury by CVAA

| | | | | | | | | | |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.107 | 0.107 | 0.0115 | mg/kg dry | 490 | 09/09/15 | EPA7471 | | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

SS01 (0-12")**1509042-01 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Hot Water Extractable

| | | | | | | | | | |
|--------------|--------|-------|-------|------|---|----------|----------|--|-----|
| Boron | <0.600 | 0.600 | 0.065 | mg/L | 2 | 09/10/15 | EPA200.7 | | JGS |
|--------------|--------|-------|-------|------|---|----------|----------|--|-----|

Subcontracted -- **Cardinal Laboratories**

Volatile Organic Compounds by EPA Method 8021

| | | | | | | | | | |
|-----------------------|--------------|-------|-------|-------|----|----------|-------|--|----|
| Benzene* | <0.050 | 0.050 | 0.010 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Toluene* | 0.381 | 0.050 | 0.015 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Ethylbenzene* | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Total BTEX | 0.381 | 0.300 | | mg/kg | 50 | 09/04/15 | 8021B | | CK |

| | | | | | | | | | |
|---------------------------------------|-------|----------|--|--|--|----------|-------|--|----|
| Surrogate: 4-Bromofluorobenzene (PID) | 102 % | 85.6-137 | | | | 09/04/15 | 8021B | | CK |
|---------------------------------------|-------|----------|--|--|--|----------|-------|--|----|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|----------------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10 | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| DRO >C10-C28 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |

| | | | | | | | | | |
|---------------------------|--------|----------|--|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctane | 72.6 % | 47.2-157 | | | | 09/04/15 | 8015B | | CK |
|---------------------------|--------|----------|--|--|--|----------|-------|--|----|

| | | | | | | | | | |
|-------------------------------|--------|----------|--|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctadecane | 70.3 % | 52.1-176 | | | | 09/04/15 | 8015B | | CK |
|-------------------------------|--------|----------|--|--|--|----------|-------|--|----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS01 (0-12")

1509042-01 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

Semivolatile Organic Compounds by GCMS

| | | | | | | | | | |
|------------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Naphthalene | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 2-Methylnaphthalene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 1-Methylnaphthalene | <0.001 | 0.020 | 0.001 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthylene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluorene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Phenanthrene | <0.006 | 0.040 | 0.006 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Carbazole | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluoranthene | <0.007 | 0.040 | 0.007 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]anthracene | <0.016 | 0.040 | 0.016 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Chrysene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[b]fluoranthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[k]fluoranthene | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Indeno[1,2,3-cd]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Dibenz[a,h]anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[g,h,i]perylene | <0.030 | 0.040 | 0.030 | mg/kg | 40 | 09/08/15 | 8270C | | MS |

| | | | | | |
|-----------------------------|--------|----------|----------|-------|----|
| Surrogate: Nitrobenzene-d5 | 73.4 % | 20.4-109 | 09/08/15 | 8270C | MS |
| Surrogate: 2-Fluorobiphenyl | 93.8 % | 23.4-133 | 09/08/15 | 8270C | MS |
| Surrogate: Terphenyl-d14 | 96.9 % | 38.4-163 | 09/08/15 | 8270C | MS |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS02 (0-6")

1509042-02 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|--------------|------|--|--|---|---|----------|----------------|--|-----|
| % Dry Solids | 82.5 | | | % | 1 | 09/05/15 | EPA160.3/2540C | | MAJ |
|--------------|------|--|--|---|---|----------|----------------|--|-----|

Saturated Paste Extraction

| | | | | | | | | | |
|--------------|-------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium | 55.4 | 10.0 | 0.039 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| Conductivity | 3830 | | | umhos/cm | 1 | 09/10/15 | ASA#9 10-3.3 | | LLG |
| Magnesium | <10.0 | 10.0 | 0.190 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| pH | 8.00 | | | pH Units | 1 | 09/10/15 | ASA#9 12-2.6 | | LLG |
| SAR | 28.7 | | | [blank] | 1 | 09/10/15 | Calculation | | JGS |
| Sodium | 853 | 20.0 | 0.041 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |

Total Metals by ICP

| | | | | | | | | | |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium | 163 | 1.00 | 0.191 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Cadmium | <5.00 | 5.00 | 0.117 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Chromium | 12.0 | 5.00 | 0.636 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Copper | 15.9 | 2.00 | 0.650 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Lead | 21.5 | 10.0 | 1.84 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Nickel | 12.9 | 5.00 | 1.55 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Selenium | <20.0 | 20.0 | 3.61 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Silver | <5.00 | 5.00 | 0.231 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Zinc | 46.5 | 5.00 | 0.792 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |

Total Metals by ICPMS

| | | | | | | | | | |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 2.85 | 0.500 | 0.260 | mg/kg dry | 1000 | 09/08/15 | 6020 A | | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

Total Mercury by CVAA

| | | | | | | | | | |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.125 | 0.125 | 0.0135 | mg/kg dry | 515 | 09/09/15 | EPA7471 | | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

SS02 (0-6")**1509042-02 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Hot Water Extractable

| | | | | | | | | | |
|--------------|--------------|-------|-------|------|---|----------|----------|--|-----|
| Boron | 0.758 | 0.600 | 0.065 | mg/L | 2 | 09/10/15 | EPA200.7 | | JGS |
|--------------|--------------|-------|-------|------|---|----------|----------|--|-----|

Subcontracted -- **Cardinal Laboratories**

Volatile Organic Compounds by EPA Method 8021

| | | | | | | | | | |
|-----------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene* | <0.050 | 0.050 | 0.010 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Toluene* | <0.050 | 0.050 | 0.015 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Ethylbenzene* | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Total BTEX | <0.300 | 0.300 | | mg/kg | 50 | 09/04/15 | 8021B | | CK |

| | | | | | | | |
|---------------------------------------|-------|----------|--|----------|-------|--|----|
| Surrogate: 4-Bromofluorobenzene (PID) | 101 % | 85.6-137 | | 09/04/15 | 8021B | | CK |
|---------------------------------------|-------|----------|--|----------|-------|--|----|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|----------------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10 | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| DRO >C10-C28 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |

| | | | | | | | |
|---------------------------|--------|----------|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctane | 81.9 % | 47.2-157 | | 09/04/15 | 8015B | | CK |
|---------------------------|--------|----------|--|----------|-------|--|----|

| | | | | | | | |
|-------------------------------|--------|----------|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctadecane | 91.2 % | 52.1-176 | | 09/04/15 | 8015B | | CK |
|-------------------------------|--------|----------|--|----------|-------|--|----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS02 (0-6")

1509042-02 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

Semivolatile Organic Compounds by GCMS

| | | | | | | | | | |
|-----------------------------|--------|-------|--------|----------|----|----------|-------|--|----|
| Naphthalene | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 2-Methylnaphthalene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 1-Methylnaphthalene | <0.001 | 0.020 | 0.001 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthylene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluorene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Phenanthrene | <0.006 | 0.040 | 0.006 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Carbazole | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluoranthene | <0.007 | 0.040 | 0.007 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]anthracene | <0.016 | 0.040 | 0.016 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Chrysene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[b]fluoranthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[k]fluoranthene | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Indeno[1,2,3-cd]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Dibenz[a,h]anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[g,h,i]perylene | <0.030 | 0.040 | 0.030 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Surrogate: Nitrobenzene-d5 | | | 80.6 % | 20.4-109 | | 09/08/15 | 8270C | | MS |
| Surrogate: 2-Fluorobiphenyl | | | 116 % | 23.4-133 | | 09/08/15 | 8270C | | MS |
| Surrogate: Terphenyl-d14 | | | 134 % | 38.4-163 | | 09/08/15 | 8270C | | MS |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS02 (6-12")

1509042-03 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|--------------|------|--|--|---|---|----------|----------------|--|-----|
| % Dry Solids | 84.1 | | | % | 1 | 09/05/15 | EPA160.3/2540C | | MAJ |
|--------------|------|--|--|---|---|----------|----------------|--|-----|

Saturated Paste Extraction

| | | | | | | | | | |
|--------------|-------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium | 62.8 | 10.0 | 0.039 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| Conductivity | 3850 | | | umhos/cm | 1 | 09/10/15 | ASA#9 10-3.3 | | LLG |
| Magnesium | <10.0 | 10.0 | 0.190 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| pH | 8.00 | | | pH Units | 1 | 09/10/15 | ASA#9 12-2.6 | | LLG |
| SAR | 25.4 | | | [blank] | 1 | 09/10/15 | Calculation | | JGS |
| Sodium | 807 | 20.0 | 0.041 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |

Total Metals by ICP

| | | | | | | | | | |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium | 161 | 1.00 | 0.191 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Cadmium | <5.00 | 5.00 | 0.117 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Chromium | 12.3 | 5.00 | 0.636 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Copper | 14.7 | 2.00 | 0.650 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Lead | 18.2 | 10.0 | 1.84 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Nickel | 13.0 | 5.00 | 1.55 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Selenium | <20.0 | 20.0 | 3.61 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Silver | <5.00 | 5.00 | 0.231 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Zinc | 43.4 | 5.00 | 0.792 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |

Total Metals by ICPMS

| | | | | | | | | | |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 2.72 | 0.500 | 0.260 | mg/kg dry | 1000 | 09/08/15 | 6020 A | | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

Total Mercury by CVAA

| | | | | | | | | | |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.121 | 0.121 | 0.0131 | mg/kg dry | 510 | 09/09/15 | EPA7471 | | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

SS02 (6-12")**1509042-03 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Hot Water Extractable

| | | | | | | | | | |
|--------------|--------|-------|-------|------|---|----------|----------|--|-----|
| Boron | <0.600 | 0.600 | 0.065 | mg/L | 2 | 09/10/15 | EPA200.7 | | JGS |
|--------------|--------|-------|-------|------|---|----------|----------|--|-----|

Subcontracted -- **Cardinal Laboratories**

Volatile Organic Compounds by EPA Method 8021

| | | | | | | | | | |
|-----------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene* | <0.050 | 0.050 | 0.010 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Toluene* | <0.050 | 0.050 | 0.015 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Ethylbenzene* | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Total BTEX | <0.300 | 0.300 | | mg/kg | 50 | 09/04/15 | 8021B | | CK |

| | | | | | | | | | |
|--|--|--|-------|----------|--|----------|-------|--|----|
| <i>Surrogate: 4-Bromofluorobenzene (PID)</i> | | | 102 % | 85.6-137 | | 09/04/15 | 8021B | | CK |
|--|--|--|-------|----------|--|----------|-------|--|----|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|----------------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10 | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| DRO >C10-C28 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |

| | | | | | | | | | |
|----------------------------------|--|--|--------|----------|--|----------|-------|--|----|
| <i>Surrogate: 1-Chlorooctane</i> | | | 79.5 % | 47.2-157 | | 09/04/15 | 8015B | | CK |
|----------------------------------|--|--|--------|----------|--|----------|-------|--|----|

| | | | | | | | | | |
|--------------------------------------|--|--|--------|----------|--|----------|-------|--|----|
| <i>Surrogate: 1-Chlorooctadecane</i> | | | 78.0 % | 52.1-176 | | 09/04/15 | 8015B | | CK |
|--------------------------------------|--|--|--------|----------|--|----------|-------|--|----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS02 (6-12")

1509042-03 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

Semivolatile Organic Compounds by GCMS

| | | | | | | | | | |
|-----------------------------|--------|-------|--------|----------|----|----------|-------|--|----|
| Naphthalene | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 2-Methylnaphthalene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 1-Methylnaphthalene | <0.001 | 0.020 | 0.001 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthylene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluorene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Phenanthrene | <0.006 | 0.040 | 0.006 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Carbazole | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluoranthene | <0.007 | 0.040 | 0.007 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]anthracene | <0.016 | 0.040 | 0.016 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Chrysene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[b]fluoranthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[k]fluoranthene | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Indeno[1,2,3-cd]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Dibenz[a,h]anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[g,h,i]perylene | <0.030 | 0.040 | 0.030 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Surrogate: Nitrobenzene-d5 | | | 75.8 % | 20.4-109 | | 09/08/15 | 8270C | | MS |
| Surrogate: 2-Fluorobiphenyl | | | 109 % | 23.4-133 | | 09/08/15 | 8270C | | MS |
| Surrogate: Terphenyl-d14 | | | 119 % | 38.4-163 | | 09/08/15 | 8270C | | MS |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS03 (0-12")

1509042-04 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|--------------|------|--|--|---|---|----------|----------------|--|-----|
| % Dry Solids | 80.3 | | | % | 1 | 09/05/15 | EPA160.3/2540C | | MAJ |
|--------------|------|--|--|---|---|----------|----------------|--|-----|

Saturated Paste Extraction

| | | | | | | | | | |
|--------------|------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium | 70.2 | 10.0 | 0.039 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| Conductivity | 5450 | | | umhos/cm | 1 | 09/10/15 | ASA#9 10-3.3 | | LLG |
| Magnesium | 14.2 | 10.0 | 0.190 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| pH | 8.36 | | | pH Units | 1 | 09/10/15 | ASA#9 12-2.6 | | LLG |
| SAR | 39.9 | | | [blank] | 1 | 09/10/15 | Calculation | | JGS |
| Sodium | 1400 | 20.0 | 0.041 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |

Total Metals by ICP

| | | | | | | | | | |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium | 321 | 1.00 | 0.191 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Cadmium | <5.00 | 5.00 | 0.117 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Chromium | 7.42 | 5.00 | 0.636 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Copper | 10.1 | 2.00 | 0.650 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Lead | <10.0 | 10.0 | 1.84 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Nickel | 7.26 | 5.00 | 1.55 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Selenium | <20.0 | 20.0 | 3.61 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Silver | <5.00 | 5.00 | 0.231 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Zinc | 24.7 | 5.00 | 0.792 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |

Total Metals by ICPMS

| | | | | | | | | | |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 1.72 | 0.500 | 0.260 | mg/kg dry | 1000 | 09/08/15 | 6020 A | | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

Total Mercury by CVAA

| | | | | | | | | | |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.125 | 0.125 | 0.0134 | mg/kg dry | 500 | 09/09/15 | EPA7471 | | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

SS03 (0-12")**1509042-04 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Hot Water Extractable

| | | | | | | | | | |
|-------|--------|-------|-------|------|---|----------|----------|--|-----|
| Boron | <0.600 | 0.600 | 0.065 | mg/L | 2 | 09/10/15 | EPA200.7 | | JGS |
|-------|--------|-------|-------|------|---|----------|----------|--|-----|

Subcontracted -- Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

| | | | | | | | | | |
|----------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene* | <0.050 | 0.050 | 0.010 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Toluene* | <0.050 | 0.050 | 0.015 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Ethylbenzene* | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 09/04/15 | 8021B | | CK |
| Total BTEX | <0.300 | 0.300 | | mg/kg | 50 | 09/04/15 | 8021B | | CK |

| | | | | | | | | |
|---------------------------------------|-------|----------|--|--|----------|-------|--|----|
| Surrogate: 4-Bromofluorobenzene (PID) | 101 % | 85.6-137 | | | 09/04/15 | 8021B | | CK |
|---------------------------------------|-------|----------|--|--|----------|-------|--|----|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10 | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| DRO >C10-C28 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |

| | | | | | | | | |
|-------------------------------|--------|----------|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctane | 76.7 % | 47.2-157 | | | 09/04/15 | 8015B | | CK |
| Surrogate: 1-Chlorooctadecane | 74.9 % | 52.1-176 | | | 09/04/15 | 8015B | | CK |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS03 (0-12")

1509042-04 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

Semivolatile Organic Compounds by GCMS

| | | | | | | | | | |
|------------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Naphthalene | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 2-Methylnaphthalene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 1-Methylnaphthalene | <0.001 | 0.020 | 0.001 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthylene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluorene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Phenanthrene | <0.006 | 0.040 | 0.006 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Carbazole | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluoranthene | <0.007 | 0.040 | 0.007 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]anthracene | <0.016 | 0.040 | 0.016 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Chrysene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[b]fluoranthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[k]fluoranthene | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Indeno[1,2,3-cd]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Dibenz[a,h]anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[g,h,i]perylene | <0.030 | 0.040 | 0.030 | mg/kg | 40 | 09/08/15 | 8270C | | MS |

| | | | | | |
|-----------------------------|--------|----------|----------|-------|----|
| Surrogate: Nitrobenzene-d5 | 95.3 % | 20.4-109 | 09/08/15 | 8270C | MS |
| Surrogate: 2-Fluorobiphenyl | 125 % | 23.4-133 | 09/08/15 | 8270C | MS |
| Surrogate: Terphenyl-d14 | 155 % | 38.4-163 | 09/08/15 | 8270C | MS |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS04 (0-12")

1509042-05 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|--------------|------|--|--|---|---|----------|----------------|--|-----|
| % Dry Solids | 83.4 | | | % | 1 | 09/05/15 | EPA160.3/2540C | | MAJ |
|--------------|------|--|--|---|---|----------|----------------|--|-----|

Saturated Paste Extraction

| | | | | | | | | | |
|--------------|------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium | 66.0 | 10.0 | 0.039 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| Conductivity | 2400 | | | umhos/cm | 1 | 09/10/15 | ASA#9 10-3.3 | | LLG |
| Magnesium | 10.8 | 10.0 | 0.190 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| pH | 7.24 | | | pH Units | 1 | 09/10/15 | ASA#9 12-2.6 | | LLG |
| SAR | 13.1 | | | [blank] | 1 | 09/10/15 | Calculation | | JGS |
| Sodium | 434 | 20.0 | 0.041 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |

Total Metals by ICP

| | | | | | | | | | |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium | 153 | 1.00 | 0.191 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Cadmium | <5.00 | 5.00 | 0.117 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Chromium | 12.2 | 5.00 | 0.636 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Copper | 14.6 | 2.00 | 0.650 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Lead | 17.8 | 10.0 | 1.84 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Nickel | 12.0 | 5.00 | 1.55 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Selenium | <20.0 | 20.0 | 3.61 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Silver | <5.00 | 5.00 | 0.231 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Zinc | 44.9 | 5.00 | 0.792 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |

Total Metals by ICPMS

| | | | | | | | | | |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 3.32 | 0.500 | 0.260 | mg/kg dry | 1000 | 09/08/15 | 6020 A | | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

Total Mercury by CVAA

| | | | | | | | | | |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.121 | 0.121 | 0.0131 | mg/kg dry | 505 | 09/09/15 | EPA7471 | | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

SS04 (0-12")**1509042-05 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Hot Water Extractable

| | | | | | | | | | |
|-------|--------|-------|-------|------|---|----------|----------|--|-----|
| Boron | <0.600 | 0.600 | 0.065 | mg/L | 2 | 09/10/15 | EPA200.7 | | JGS |
|-------|--------|-------|-------|------|---|----------|----------|--|-----|

Subcontracted -- Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

| | | | | | | | | | |
|----------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene* | <0.050 | 0.050 | 0.010 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Toluene* | <0.050 | 0.050 | 0.015 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Ethylbenzene* | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Total BTEX | <0.300 | 0.300 | | mg/kg | 50 | 09/05/15 | 8021B | | CK |

| | | | | | | | | |
|---------------------------------------|-------|----------|--|--|----------|-------|--|----|
| Surrogate: 4-Bromofluorobenzene (PID) | 101 % | 85.6-137 | | | 09/05/15 | 8021B | | CK |
|---------------------------------------|-------|----------|--|--|----------|-------|--|----|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10 | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| DRO >C10-C28 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |

| | | | | | | | | |
|---------------------------|--------|----------|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctane | 78.4 % | 47.2-157 | | | 09/04/15 | 8015B | | CK |
|---------------------------|--------|----------|--|--|----------|-------|--|----|

| | | | | | | | | |
|-------------------------------|--------|----------|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctadecane | 91.6 % | 52.1-176 | | | 09/04/15 | 8015B | | CK |
|-------------------------------|--------|----------|--|--|----------|-------|--|----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS04 (0-12")

1509042-05 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

Semivolatile Organic Compounds by GCMS

| | | | | | | | | | |
|-----------------------------|--------|-------|--------|----------|----|----------|-------|--|----|
| Naphthalene | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 2-Methylnaphthalene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 1-Methylnaphthalene | <0.001 | 0.020 | 0.001 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthylene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluorene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Phenanthrene | <0.006 | 0.040 | 0.006 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Carbazole | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluoranthene | <0.007 | 0.040 | 0.007 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]anthracene | <0.016 | 0.040 | 0.016 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Chrysene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[b]fluoranthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[k]fluoranthene | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Indeno[1,2,3-cd]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Dibenz[a,h]anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[g,h,i]perylene | <0.030 | 0.040 | 0.030 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Surrogate: Nitrobenzene-d5 | | | 82.5 % | 20.4-109 | | 09/08/15 | 8270C | | MS |
| Surrogate: 2-Fluorobiphenyl | | | 111 % | 23.4-133 | | 09/08/15 | 8270C | | MS |
| Surrogate: Terphenyl-d14 | | | 127 % | 38.4-163 | | 09/08/15 | 8270C | | MS |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS05 (0-12")

1509042-06 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|--------------|------|--|--|---|---|----------|----------------|--|-----|
| % Dry Solids | 82.7 | | | % | 1 | 09/05/15 | EPA160.3/2540C | | MAJ |
|--------------|------|--|--|---|---|----------|----------------|--|-----|

Saturated Paste Extraction

| | | | | | | | | | |
|--------------|------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium | 171 | 10.0 | 0.039 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| Conductivity | 1810 | | | umhos/cm | 1 | 09/10/15 | ASA#9 10-3.3 | | LLG |
| Magnesium | 29.5 | 10.0 | 0.190 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| pH | 6.23 | | | pH Units | 1 | 09/10/15 | ASA#9 12-2.6 | | LLG |
| SAR | 3.21 | | | [blank] | 1 | 09/10/15 | Calculation | | JGS |
| Sodium | 173 | 20.0 | 0.041 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |

Total Metals by ICP

| | | | | | | | | | |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium | 172 | 1.00 | 0.191 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Cadmium | <5.00 | 5.00 | 0.117 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Chromium | 13.6 | 5.00 | 0.636 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Copper | 16.0 | 2.00 | 0.650 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Lead | 20.5 | 10.0 | 1.84 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Nickel | 14.2 | 5.00 | 1.55 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Selenium | <20.0 | 20.0 | 3.61 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Silver | <5.00 | 5.00 | 0.231 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Zinc | 51.1 | 5.00 | 0.792 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |

Total Metals by ICPMS

| | | | | | | | | | |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 3.66 | 0.500 | 0.260 | mg/kg dry | 1000 | 09/08/15 | 6020 A | | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

Total Mercury by CVAA

| | | | | | | | | | |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.120 | 0.120 | 0.0129 | mg/kg dry | 495 | 09/09/15 | EPA7471 | | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

SS05 (0-12")**1509042-06 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Hot Water Extractable

| | | | | | | | | | |
|-------|--------|-------|-------|------|---|----------|----------|--|-----|
| Boron | <0.600 | 0.600 | 0.065 | mg/L | 2 | 09/10/15 | EPA200.7 | | JGS |
|-------|--------|-------|-------|------|---|----------|----------|--|-----|

Subcontracted -- Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

| | | | | | | | | | |
|----------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene* | <0.050 | 0.050 | 0.010 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Toluene* | 0.515 | 0.050 | 0.015 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Ethylbenzene* | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Total BTEX | 0.515 | 0.300 | | mg/kg | 50 | 09/05/15 | 8021B | | CK |

| | | | | | | | |
|---------------------------------------|--------|----------|--|----------|-------|--|----|
| Surrogate: 4-Bromofluorobenzene (PID) | 99.9 % | 85.6-137 | | 09/05/15 | 8021B | | CK |
|---------------------------------------|--------|----------|--|----------|-------|--|----|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10 | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| DRO >C10-C28 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| EXT DRO >C28-C35 | 13.4 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |

| | | | | | | | |
|---------------------------|--------|----------|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctane | 75.9 % | 47.2-157 | | 09/04/15 | 8015B | | CK |
|---------------------------|--------|----------|--|----------|-------|--|----|

| | | | | | | | |
|-------------------------------|--------|----------|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctadecane | 88.8 % | 52.1-176 | | 09/04/15 | 8015B | | CK |
|-------------------------------|--------|----------|--|----------|-------|--|----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS05 (0-12")

1509042-06 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

Semivolatile Organic Compounds by GCMS

| | | | | | | | | | |
|------------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Naphthalene | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 2-Methylnaphthalene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 1-Methylnaphthalene | <0.001 | 0.020 | 0.001 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthylene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluorene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Phenanthrene | <0.006 | 0.040 | 0.006 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Carbazole | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluoranthene | <0.007 | 0.040 | 0.007 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]anthracene | <0.016 | 0.040 | 0.016 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Chrysene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[b]fluoranthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[k]fluoranthene | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Indeno[1,2,3-cd]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Dibenz[a,h]anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[g,h,i]perylene | <0.030 | 0.040 | 0.030 | mg/kg | 40 | 09/08/15 | 8270C | | MS |

| | | | | | |
|-----------------------------|--------|----------|----------|-------|----|
| Surrogate: Nitrobenzene-d5 | 91.1 % | 20.4-109 | 09/08/15 | 8270C | MS |
| Surrogate: 2-Fluorobiphenyl | 118 % | 23.4-133 | 09/08/15 | 8270C | MS |
| Surrogate: Terphenyl-d14 | 135 % | 38.4-163 | 09/08/15 | 8270C | MS |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS06 (0-12")

1509042-07 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|--------------|------|--|--|---|---|----------|----------------|--|-----|
| % Dry Solids | 84.4 | | | % | 1 | 09/05/15 | EPA160.3/2540C | | MAJ |
|--------------|------|--|--|---|---|----------|----------------|--|-----|

Saturated Paste Extraction

| | | | | | | | | | |
|--------------|-------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium | 59.6 | 10.0 | 0.039 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| Conductivity | 350 | | | umhos/cm | 1 | 09/10/15 | ASA#9 10-3.3 | | LLG |
| Magnesium | 11.0 | 10.0 | 0.190 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| pH | 6.41 | | | pH Units | 1 | 09/10/15 | ASA#9 12-2.6 | | LLG |
| SAR | 0.16 | | | [blank] | 1 | 09/10/15 | Calculation | | JGS |
| Sodium | <20.0 | 20.0 | 0.041 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |

Total Metals by ICP

| | | | | | | | | | |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium | 163 | 1.00 | 0.191 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Cadmium | <5.00 | 5.00 | 0.117 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Chromium | 13.9 | 5.00 | 0.636 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Copper | 15.6 | 2.00 | 0.650 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Lead | 20.8 | 10.0 | 1.84 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Nickel | 13.8 | 5.00 | 1.55 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Selenium | <20.0 | 20.0 | 3.61 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Silver | <5.00 | 5.00 | 0.231 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Zinc | 54.6 | 5.00 | 0.792 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |

Total Metals by ICPMS

| | | | | | | | | | |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 3.15 | 0.500 | 0.260 | mg/kg dry | 1000 | 09/08/15 | 6020 A | | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

Total Mercury by CVAA

| | | | | | | | | | |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.120 | 0.120 | 0.0129 | mg/kg dry | 505 | 09/09/15 | EPA7471 | | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

SS06 (0-12")**1509042-07 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Hot Water Extractable

| | | | | | | | | | |
|--------------|--------|-------|-------|------|---|----------|----------|--|-----|
| Boron | <0.600 | 0.600 | 0.065 | mg/L | 2 | 09/10/15 | EPA200.7 | | JGS |
|--------------|--------|-------|-------|------|---|----------|----------|--|-----|

Subcontracted -- **Cardinal Laboratories**

Volatile Organic Compounds by EPA Method 8021

| | | | | | | | | | |
|-----------------------|--------------|-------|-------|-------|----|----------|-------|--|----|
| Benzene* | <0.050 | 0.050 | 0.010 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Toluene* | 0.753 | 0.050 | 0.015 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Ethylbenzene* | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Total BTEX | 0.753 | 0.300 | | mg/kg | 50 | 09/05/15 | 8021B | | CK |

| | | | | | | | | |
|---------------------------------------|-------|----------|--|--|----------|-------|--|----|
| Surrogate: 4-Bromofluorobenzene (PID) | 101 % | 85.6-137 | | | 09/05/15 | 8021B | | CK |
|---------------------------------------|-------|----------|--|--|----------|-------|--|----|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|----------------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10 | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| DRO >C10-C28 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |

| | | | | | | | | |
|---------------------------|--------|----------|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctane | 79.0 % | 47.2-157 | | | 09/04/15 | 8015B | | CK |
|---------------------------|--------|----------|--|--|----------|-------|--|----|

| | | | | | | | | |
|-------------------------------|--------|----------|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctadecane | 88.2 % | 52.1-176 | | | 09/04/15 | 8015B | | CK |
|-------------------------------|--------|----------|--|--|----------|-------|--|----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS06 (0-12")

1509042-07 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

Semivolatile Organic Compounds by GCMS

| | | | | | | | | | |
|------------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Naphthalene | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 2-Methylnaphthalene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 1-Methylnaphthalene | <0.001 | 0.020 | 0.001 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthylene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluorene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Phenanthrene | <0.006 | 0.040 | 0.006 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Carbazole | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluoranthene | <0.007 | 0.040 | 0.007 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]anthracene | <0.016 | 0.040 | 0.016 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Chrysene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[b]fluoranthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[k]fluoranthene | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Indeno[1,2,3-cd]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Dibenz[a,h]anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[g,h,i]perylene | <0.030 | 0.040 | 0.030 | mg/kg | 40 | 09/08/15 | 8270C | | MS |

| | | | | | |
|-----------------------------|--------|----------|----------|-------|----|
| Surrogate: Nitrobenzene-d5 | 90.0 % | 20.4-109 | 09/08/15 | 8270C | MS |
| Surrogate: 2-Fluorobiphenyl | 118 % | 23.4-133 | 09/08/15 | 8270C | MS |
| Surrogate: Terphenyl-d14 | 127 % | 38.4-163 | 09/08/15 | 8270C | MS |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS07 (0-12")

1509042-08 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|--------------|------|--|--|---|---|----------|----------------|--|-----|
| % Dry Solids | 97.2 | | | % | 1 | 09/05/15 | EPA160.3/2540C | | MAJ |
|--------------|------|--|--|---|---|----------|----------------|--|-----|

Saturated Paste Extraction

| | | | | | | | | | |
|--------------|-------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium | 45.4 | 10.0 | 0.039 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| Conductivity | 245 | | | umhos/cm | 1 | 09/10/15 | ASA#9 10-3.3 | | LLG |
| Magnesium | <10.0 | 10.0 | 0.190 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |
| pH | 7.24 | | | pH Units | 1 | 09/10/15 | ASA#9 12-2.6 | | LLG |
| SAR | 0.08 | | | [blank] | 1 | 09/10/15 | Calculation | | JGS |
| Sodium | <20.0 | 20.0 | 0.041 | mg/L | 10 | 09/10/15 | EPA200.7 | | JGS |

Total Metals by ICP

| | | | | | | | | | |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium | 170 | 1.00 | 0.191 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Cadmium | <5.00 | 5.00 | 0.117 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Chromium | 12.5 | 5.00 | 0.636 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Copper | 12.8 | 2.00 | 0.650 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Lead | 13.8 | 10.0 | 1.84 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Nickel | 13.3 | 5.00 | 1.55 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Selenium | <20.0 | 20.0 | 3.61 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Silver | <5.00 | 5.00 | 0.231 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |
| Zinc | 43.2 | 5.00 | 0.792 | mg/kg dry | 100 | 09/10/15 | EPA6010 B | | JGS |

Total Metals by ICPMS

| | | | | | | | | | |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 2.93 | 0.500 | 0.260 | mg/kg dry | 1000 | 09/08/15 | 6020 A | | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

Total Mercury by CVAA

| | | | | | | | | | |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.103 | 0.103 | 0.0111 | mg/kg dry | 500 | 09/09/15 | EPA7471 | | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS07 (0-12")

1509042-08 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Hot Water Extractable

| | | | | | | | | | |
|-------|--------|-------|-------|------|---|----------|----------|--|-----|
| Boron | <0.600 | 0.600 | 0.065 | mg/L | 2 | 09/10/15 | EPA200.7 | | JGS |
|-------|--------|-------|-------|------|---|----------|----------|--|-----|

Subcontracted -- Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

| | | | | | | | | | |
|----------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene* | <0.050 | 0.050 | 0.010 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Toluene* | 0.948 | 0.050 | 0.015 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Ethylbenzene* | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 09/05/15 | 8021B | | CK |
| Total BTEX | 0.948 | 0.300 | | mg/kg | 50 | 09/05/15 | 8021B | | CK |

| | | | | | | | | |
|---------------------------------------|-------|----------|--|--|----------|-------|--|----|
| Surrogate: 4-Bromofluorobenzene (PID) | 101 % | 85.6-137 | | | 09/05/15 | 8021B | | CK |
|---------------------------------------|-------|----------|--|--|----------|-------|--|----|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10 | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| DRO >C10-C28 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 09/04/15 | 8015B | | CK |

| | | | | | | | | |
|---------------------------|--------|----------|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctane | 71.6 % | 47.2-157 | | | 09/04/15 | 8015B | | CK |
|---------------------------|--------|----------|--|--|----------|-------|--|----|

| | | | | | | | | |
|-------------------------------|--------|----------|--|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctadecane | 80.4 % | 52.1-176 | | | 09/04/15 | 8015B | | CK |
|-------------------------------|--------|----------|--|--|----------|-------|--|----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

SS07 (0-12")

1509042-08 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

Semivolatile Organic Compounds by GCMS

| | | | | | | | | | |
|------------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Naphthalene | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 2-Methylnaphthalene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| 1-Methylnaphthalene | <0.001 | 0.020 | 0.001 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthylene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Acenaphthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluorene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Phenanthrene | <0.006 | 0.040 | 0.006 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Carbazole | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Fluoranthene | <0.007 | 0.040 | 0.007 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]anthracene | <0.016 | 0.040 | 0.016 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Chrysene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[b]fluoranthene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[k]fluoranthene | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[a]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Indeno[1,2,3-cd]pyrene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Dibenz[a,h]anthracene | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 09/08/15 | 8270C | | MS |
| Benzo[g,h,i]perylene | <0.030 | 0.040 | 0.030 | mg/kg | 40 | 09/08/15 | 8270C | | MS |

| | | | | | |
|-----------------------------|--------|----------|----------|-------|----|
| Surrogate: Nitrobenzene-d5 | 94.5 % | 20.4-109 | 09/08/15 | 8270C | MS |
| Surrogate: 2-Fluorobiphenyl | 124 % | 23.4-133 | 09/08/15 | 8270C | MS |
| Surrogate: Terphenyl-d14 | 135 % | 38.4-163 | 09/08/15 | 8270C | MS |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

General Chemistry - Quality Control

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

Batch B509060 - General Prep - Wet Chem

Duplicate (B509060-DUP1)

Source: 1509042-01

Prepared: 09/03/15 Analyzed: 09/05/15

| | | | | | | | | | | |
|--------------|------|--|---|--|------|--|--|--------|----|--|
| % Dry Solids | 91.6 | | % | | 91.7 | | | 0.0436 | 20 | |
|--------------|------|--|---|--|------|--|--|--------|----|--|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

Saturated Paste Extraction - Quality Control

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

Batch B509099 - Paste Extract

| Duplicate (B509099-DUP1) | Source: 1509045-01 | | | Prepared & Analyzed: 09/10/15 | | | | | |
|--------------------------|--------------------|------|------|-------------------------------|------|--|--|------|----|
| Calcium | 576 | 10.0 | mg/L | | 620 | | | 7.39 | 20 |
| Magnesium | 15.7 | 10.0 | mg/L | | 16.6 | | | 5.50 | 20 |
| Sodium | 2080 | 20.0 | mg/L | | 2180 | | | 4.75 | 20 |

Batch B509106 - General Prep - Wet Chem

| Duplicate (B509106-DUP1) | Source: 1509045-01 | | | Prepared & Analyzed: 09/10/15 | | | | | |
|--------------------------|--------------------|--|----------|-------------------------------|------|--|--|-------|----|
| pH | 8.26 | | pH Units | | 8.25 | | | 0.121 | 20 |

Batch B509107 - General Prep - Wet Chem

| Duplicate (B509107-DUP1) | Source: 1509045-01 | | | Prepared & Analyzed: 09/10/15 | | | | | |
|--------------------------|--------------------|--|----------|-------------------------------|-------|--|--|------|----|
| Conductivity | 15700 | | umhos/cm | | 16400 | | | 4.55 | 20 |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

Total Metals by ICP - Quality Control

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

Batch B509103 - EPA 3050

Blank (B509103-BLK1)

Prepared & Analyzed: 09/10/15

| | | | | | | | | | | |
|----------|-------|-------|-----------|--|--|--|--|--|--|----|
| Barium | ND | 0.010 | mg/kg dry | | | | | | | |
| Cadmium | ND | 0.050 | mg/kg dry | | | | | | | |
| Chromium | ND | 0.050 | mg/kg dry | | | | | | | |
| Copper | 0.064 | 0.020 | mg/kg dry | | | | | | | B1 |
| Lead | ND | 0.100 | mg/kg dry | | | | | | | |
| Nickel | ND | 0.050 | mg/kg dry | | | | | | | |
| Selenium | ND | 0.200 | mg/kg dry | | | | | | | |
| Silver | ND | 0.050 | mg/kg dry | | | | | | | |
| Zinc | ND | 0.050 | mg/kg dry | | | | | | | |

LCS (B509103-BS1)

Prepared & Analyzed: 09/10/15

| | | | | | | | | | | |
|----------|-------|-------|-----------|-------|--|------|--------|--|--|--|
| Barium | 1.88 | 0.010 | mg/kg dry | 2.00 | | 94.1 | 85-115 | | | |
| Cadmium | 1.86 | 0.050 | mg/kg dry | 2.00 | | 92.8 | 85-115 | | | |
| Chromium | 1.96 | 0.050 | mg/kg dry | 2.00 | | 97.9 | 85-115 | | | |
| Copper | 4.03 | 0.020 | mg/kg dry | 4.00 | | 101 | 85-115 | | | |
| Lead | 1.94 | 0.100 | mg/kg dry | 2.00 | | 97.1 | 85-115 | | | |
| Nickel | 1.87 | 0.050 | mg/kg dry | 2.00 | | 93.5 | 85-115 | | | |
| Selenium | 7.66 | 0.200 | mg/kg dry | 8.00 | | 95.8 | 85-115 | | | |
| Silver | 0.095 | 0.050 | mg/kg dry | 0.100 | | 95.3 | 85-115 | | | |
| Zinc | 1.83 | 0.050 | mg/kg dry | 2.00 | | 91.7 | 85-115 | | | |

LCS Dup (B509103-BSD1)

Prepared & Analyzed: 09/10/15

| | | | | | | | | | | |
|----------|-------|-------|-----------|-------|--|------|--------|-------|----|--|
| Barium | 1.86 | 0.010 | mg/kg dry | 2.00 | | 93.2 | 85-115 | 0.970 | 20 | |
| Cadmium | 1.84 | 0.050 | mg/kg dry | 2.00 | | 92.1 | 85-115 | 0.688 | 20 | |
| Chromium | 1.94 | 0.050 | mg/kg dry | 2.00 | | 97.0 | 85-115 | 0.929 | 20 | |
| Copper | 3.96 | 0.020 | mg/kg dry | 4.00 | | 99.1 | 85-115 | 1.65 | 20 | |
| Lead | 1.94 | 0.100 | mg/kg dry | 2.00 | | 96.8 | 85-115 | 0.294 | 20 | |
| Nickel | 1.87 | 0.050 | mg/kg dry | 2.00 | | 93.3 | 85-115 | 0.253 | 20 | |
| Selenium | 7.60 | 0.200 | mg/kg dry | 8.00 | | 95.0 | 85-115 | 0.840 | 20 | |
| Silver | 0.094 | 0.050 | mg/kg dry | 0.100 | | 94.5 | 85-115 | 0.870 | 20 | |
| Zinc | 1.82 | 0.050 | mg/kg dry | 2.00 | | 91.1 | 85-115 | 0.666 | 20 | |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

Total Metals by ICPMS - Quality Control

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

Batch B509080 - EPA 3050M

Blank (B509080-BLK1)

Prepared & Analyzed: 09/08/15

Arsenic ND 0.0005 mg/kg dry

LCS (B509080-BS1)

Prepared & Analyzed: 09/08/15

Arsenic 0.0533 0.0005 mg/kg dry 0.0500 107 85-115

LCS Dup (B509080-BSD1)

Prepared & Analyzed: 09/08/15

Arsenic 0.0504 0.0005 mg/kg dry 0.0500 101 85-115 5.67 20

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

Total Mercury by CVAA - Quality Control

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

Batch B509095 - EPA 7471

Blank (B509095-BLK1)

Prepared & Analyzed: 09/09/15

Mercury ND 0.0002 mg/kg wet

LCS (B509095-BS1)

Prepared & Analyzed: 09/09/15

Mercury 0.0020 0.0002 mg/kg wet 0.00200 101 85-115

LCS Dup (B509095-BSD1)

Prepared & Analyzed: 09/09/15

Mercury 0.0020 0.0002 mg/kg wet 0.00200 102 85-115 1.52 20

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

Hot Water Extractable - Quality Control

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

Batch B509098 - Hot Water Soluble Metals Extract

Blank (B509098-BLK1)

Prepared & Analyzed: 09/10/15

| | | | |
|-------|----|-------|------|
| Boron | ND | 0.600 | mg/L |
|-------|----|-------|------|

LCS (B509098-BS1)

Prepared & Analyzed: 09/10/15

| | | | | | | |
|-------|------|-------|------|------|------|--------|
| Boron | 4.77 | 0.600 | mg/L | 5.00 | 95.5 | 85-115 |
|-------|------|-------|------|------|------|--------|

LCS Dup (B509098-BSD1)

Prepared & Analyzed: 09/10/15

| | | | | | | | | |
|-------|------|-------|------|------|-----|--------|------|----|
| Boron | 5.56 | 0.600 | mg/L | 5.00 | 111 | 85-115 | 15.3 | 20 |
|-------|------|-------|------|------|-----|--------|------|----|

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

Volatile Organic Compounds by EPA Method 8021 - Quality Control

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

Batch 5090402 - Volatiles

Blank (5090402-BLK1)

Prepared & Analyzed: 09/04/15

| | | | | | | | | | |
|---------------------------------------|--------|-------|-------|--------|--|-----|----------|--|--|
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0505 | | mg/kg | 0.0500 | | 101 | 85.6-137 | | |
| Benzene | ND | 0.050 | mg/kg | | | | | | |
| Ethylbenzene | ND | 0.050 | mg/kg | | | | | | |
| Toluene | ND | 0.050 | mg/kg | | | | | | |
| Total BTEX | ND | 0.300 | mg/kg | | | | | | |
| Total Xylenes | ND | 0.150 | mg/kg | | | | | | |

LCS (5090402-BS1)

Prepared & Analyzed: 09/04/15

| | | | | | | | | | |
|---------------------------------------|--------|-------|-------|--------|--|------|----------|--|--|
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0468 | | mg/kg | 0.0500 | | 93.6 | 85.6-137 | | |
| Benzene | 2.05 | 0.050 | mg/kg | 2.00 | | 102 | 73-130 | | |
| Ethylbenzene | 2.04 | 0.050 | mg/kg | 2.00 | | 102 | 71.9-119 | | |
| Toluene | 1.91 | 0.050 | mg/kg | 2.00 | | 95.3 | 77-117 | | |
| Total Xylenes | 6.36 | 0.150 | mg/kg | 6.00 | | 106 | 76.2-112 | | |

LCS Dup (5090402-BSD1)

Prepared & Analyzed: 09/04/15

| | | | | | | | | | |
|---------------------------------------|--------|-------|-------|--------|--|------|----------|-------|------|
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0472 | | mg/kg | 0.0500 | | 94.5 | 85.6-137 | | |
| Benzene | 2.04 | 0.050 | mg/kg | 2.00 | | 102 | 73-130 | 0.582 | 6.59 |
| Ethylbenzene | 2.01 | 0.050 | mg/kg | 2.00 | | 101 | 71.9-119 | 1.36 | 8.3 |
| Toluene | 1.88 | 0.050 | mg/kg | 2.00 | | 94.1 | 77-117 | 1.35 | 6.92 |
| Total Xylenes | 6.26 | 0.150 | mg/kg | 6.00 | | 104 | 76.2-112 | 1.51 | 8.93 |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

Petroleum Hydrocarbons by GC FID - Quality Control

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

Batch 5090401 - General Prep - Organics

Blank (5090401-BLK1)

Prepared & Analyzed: 09/04/15

| | | | | | | | | | | |
|-------------------------------|------|------|-------|------|--|------|----------|--|--|--|
| Surrogate: 1-Chlorooctadecane | 47.0 | | mg/kg | 50.0 | | 93.9 | 52.1-176 | | | |
| Surrogate: 1-Chlorooctane | 41.8 | | mg/kg | 50.0 | | 83.5 | 47.2-157 | | | |
| DRO >C10-C28 | ND | 10.0 | mg/kg | | | | | | | |
| EXT DRO >C28-C35 | ND | 10.0 | mg/kg | | | | | | | |
| GRO C6-C10 | ND | 10.0 | mg/kg | | | | | | | |
| Total TPH C6-C28 | ND | 10.0 | mg/kg | | | | | | | |

LCS (5090401-BS1)

Prepared & Analyzed: 09/04/15

| | | | | | | | | | | |
|-------------------------------|------|------|-------|------|--|------|----------|--|--|--|
| Surrogate: 1-Chlorooctadecane | 43.3 | | mg/kg | 50.0 | | 86.5 | 52.1-176 | | | |
| Surrogate: 1-Chlorooctane | 45.2 | | mg/kg | 50.0 | | 90.4 | 47.2-157 | | | |
| DRO >C10-C28 | 196 | 10.0 | mg/kg | 200 | | 98.2 | 81.3-118 | | | |
| GRO C6-C10 | 182 | 10.0 | mg/kg | 200 | | 90.9 | 72.5-115 | | | |
| Total TPH C6-C28 | 378 | 10.0 | mg/kg | 400 | | 94.6 | 80-113 | | | |

LCS Dup (5090401-BS1)

Prepared & Analyzed: 09/04/15

| | | | | | | | | | | |
|-------------------------------|------|------|-------|------|--|------|----------|-------|------|--|
| Surrogate: 1-Chlorooctadecane | 45.2 | | mg/kg | 50.0 | | 90.4 | 52.1-176 | | | |
| Surrogate: 1-Chlorooctane | 45.7 | | mg/kg | 50.0 | | 91.4 | 47.2-157 | | | |
| DRO >C10-C28 | 196 | 10.0 | mg/kg | 200 | | 97.8 | 81.3-118 | 0.479 | 15.3 | |
| GRO C6-C10 | 183 | 10.0 | mg/kg | 200 | | 91.7 | 72.5-115 | 0.892 | 10.1 | |
| Total TPH C6-C28 | 379 | 10.0 | mg/kg | 400 | | 94.7 | 80-113 | 0.182 | 12.1 | |

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

Semivolatile Organic Compounds by GCMS - Quality Control

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

Batch 5082805 - SW-846 3550

Blank (5082805-BLK1)

Prepared: 08/25/15 Analyzed: 09/03/15

| | | | | | | | | | | |
|-----------------------------|------|-------|-------|------|--|------|----------|--|--|--|
| 1-Methylnaphthalene | ND | 0.020 | mg/kg | | | | | | | |
| Surrogate: 2-Fluorobiphenyl | 2.31 | | mg/kg | 2.00 | | 116 | 23.4-133 | | | |
| 2-Methylnaphthalene | ND | 0.040 | mg/kg | | | | | | | |
| Acenaphthene | ND | 0.040 | mg/kg | | | | | | | |
| Acenaphthylene | ND | 0.040 | mg/kg | | | | | | | |
| Anthracene | ND | 0.040 | mg/kg | | | | | | | |
| Benzo[a]anthracene | ND | 0.040 | mg/kg | | | | | | | |
| Benzo[a]pyrene | ND | 0.040 | mg/kg | | | | | | | |
| Benzo[b]fluoranthene | ND | 0.040 | mg/kg | | | | | | | |
| Benzo[g,h,i]perylene | ND | 0.040 | mg/kg | | | | | | | |
| Benzo[k]fluoranthene | ND | 0.040 | mg/kg | | | | | | | |
| Carbazole | ND | 0.040 | mg/kg | | | | | | | |
| Chrysene | ND | 0.040 | mg/kg | | | | | | | |
| Dibenz[a,h]anthracene | ND | 0.040 | mg/kg | | | | | | | |
| Fluoranthene | ND | 0.040 | mg/kg | | | | | | | |
| Fluorene | ND | 0.040 | mg/kg | | | | | | | |
| Indeno[1,2,3-cd]pyrene | ND | 0.040 | mg/kg | | | | | | | |
| Naphthalene | ND | 0.040 | mg/kg | | | | | | | |
| Surrogate: Nitrobenzene-d5 | 1.77 | | mg/kg | 2.00 | | 88.7 | 20.4-109 | | | |
| Phenanthrene | ND | 0.040 | mg/kg | | | | | | | |
| Pyrene | ND | 0.040 | mg/kg | | | | | | | |
| Surrogate: Terphenyl-d14 | 2.32 | | mg/kg | 2.00 | | 116 | 38.4-163 | | | |

LCS (5082805-BS1)

Prepared: 08/25/15 Analyzed: 09/03/15

| | | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|--|------|----------|--|--|--|
| Surrogate: 2-Fluorobiphenyl | 2.12 | | mg/kg | 2.00 | | 106 | 23.4-133 | | | |
| 2-Methylnaphthalene | 0.621 | 0.040 | mg/kg | 0.800 | | 77.7 | 41.4-151 | | | |
| Acenaphthene | 0.653 | 0.040 | mg/kg | 0.800 | | 81.6 | 39.3-154 | | | |
| Acenaphthylene | 0.657 | 0.040 | mg/kg | 0.800 | | 82.1 | 39.2-150 | | | |
| Anthracene | 0.643 | 0.040 | mg/kg | 0.800 | | 80.4 | 33.5-162 | | | |
| Benzo[a]anthracene | 0.603 | 0.040 | mg/kg | 0.800 | | 75.4 | 28.6-167 | | | |
| Benzo[a]pyrene | 0.615 | 0.040 | mg/kg | 0.800 | | 76.9 | 27.2-163 | | | |
| Benzo[b]fluoranthene | 0.686 | 0.040 | mg/kg | 0.800 | | 85.8 | 24-168 | | | |
| Benzo[g,h,i]perylene | 0.478 | 0.040 | mg/kg | 0.800 | | 59.7 | 14.1-172 | | | |
| Benzo[k]fluoranthene | 0.617 | 0.040 | mg/kg | 0.800 | | 77.1 | 28.9-170 | | | |
| Carbazole | 0.590 | 0.040 | mg/kg | 0.800 | | 73.7 | 31.6-163 | | | |
| Chrysene | 0.621 | 0.040 | mg/kg | 0.800 | | 77.6 | 27.7-171 | | | |
| Dibenz[a,h]anthracene | 0.523 | 0.040 | mg/kg | 0.800 | | 65.3 | 19-164 | | | |
| Fluoranthene | 0.561 | 0.040 | mg/kg | 0.800 | | 70.1 | 38.5-165 | | | |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy HawkReported:
09/11/15 07:58

Semivolatile Organic Compounds by GCMS - Quality Control

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

Batch 5082805 - SW-846 3550

LCS (5082805-BS1)

Prepared: 08/25/15 Analyzed: 09/03/15

| | | | | | | | | | | |
|----------------------------|-------|-------|-------|-------|--|------|----------|--|--|--|
| Fluorene | 0.654 | 0.040 | mg/kg | 0.800 | | 81.7 | 40.4-158 | | | |
| Indeno[1,2,3-cd]pyrene | 0.516 | 0.040 | mg/kg | 0.800 | | 64.5 | 21.9-162 | | | |
| Naphthalene | 0.644 | 0.040 | mg/kg | 0.800 | | 80.5 | 33.8-147 | | | |
| Surrogate: Nitrobenzene-d5 | 1.69 | | mg/kg | 2.00 | | 84.5 | 20.4-109 | | | |
| Phenanthrene | 0.632 | 0.040 | mg/kg | 0.800 | | 79.0 | 34.7-164 | | | |
| Pyrene | 0.676 | 0.040 | mg/kg | 0.800 | | 84.5 | 28-180 | | | |
| Surrogate: Terphenyl-d14 | 2.20 | | mg/kg | 2.00 | | 110 | 38.4-163 | | | |

LCS Dup (5082805-BSD1)

Prepared: 08/25/15 Analyzed: 09/03/15

| | | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|--|------|----------|--------|------|--|
| Surrogate: 2-Fluorobiphenyl | 2.10 | | mg/kg | 2.00 | | 105 | 23.4-133 | | | |
| 2-Methylnaphthalene | 0.611 | 0.040 | mg/kg | 0.800 | | 76.4 | 41.4-151 | 1.66 | 20 | |
| Acenaphthene | 0.643 | 0.040 | mg/kg | 0.800 | | 80.4 | 39.3-154 | 1.48 | 20 | |
| Acenaphthylene | 0.666 | 0.040 | mg/kg | 0.800 | | 83.2 | 39.2-150 | 1.34 | 20 | |
| Anthracene | 0.631 | 0.040 | mg/kg | 0.800 | | 78.9 | 33.5-162 | 1.90 | 20 | |
| Benzo[a]anthracene | 0.609 | 0.040 | mg/kg | 0.800 | | 76.1 | 28.6-167 | 0.962 | 20 | |
| Benzo[a]pyrene | 0.616 | 0.040 | mg/kg | 0.800 | | 77.0 | 27.2-163 | 0.107 | 20 | |
| Benzo[b]fluoranthene | 0.661 | 0.040 | mg/kg | 0.800 | | 82.6 | 24-168 | 3.79 | 21.5 | |
| Benzo[g,h,i]perylene | 0.515 | 0.040 | mg/kg | 0.800 | | 64.4 | 14.1-172 | 7.54 | 39.3 | |
| Benzo[k]fluoranthene | 0.675 | 0.040 | mg/kg | 0.800 | | 84.3 | 28.9-170 | 8.99 | 20.5 | |
| Carbazole | 0.583 | 0.040 | mg/kg | 0.800 | | 72.8 | 31.6-163 | 1.20 | 20 | |
| Chrysene | 0.624 | 0.040 | mg/kg | 0.800 | | 77.9 | 27.7-171 | 0.389 | 20 | |
| Dibenz[a,h]anthracene | 0.571 | 0.040 | mg/kg | 0.800 | | 71.3 | 19-164 | 8.76 | 30.5 | |
| Fluoranthene | 0.550 | 0.040 | mg/kg | 0.800 | | 68.8 | 38.5-165 | 1.91 | 20 | |
| Fluorene | 0.643 | 0.040 | mg/kg | 0.800 | | 80.4 | 40.4-158 | 1.66 | 20 | |
| Indeno[1,2,3-cd]pyrene | 0.565 | 0.040 | mg/kg | 0.800 | | 70.6 | 21.9-162 | 9.05 | 32.1 | |
| Naphthalene | 0.644 | 0.040 | mg/kg | 0.800 | | 80.5 | 33.8-147 | 0.0559 | 20 | |
| Surrogate: Nitrobenzene-d5 | 1.70 | | mg/kg | 2.00 | | 85.2 | 20.4-109 | | | |
| Phenanthrene | 0.639 | 0.040 | mg/kg | 0.800 | | 79.9 | 34.7-164 | 1.17 | 20 | |
| Pyrene | 0.683 | 0.040 | mg/kg | 0.800 | | 85.4 | 28-180 | 1.11 | 20 | |
| Surrogate: Terphenyl-d14 | 2.16 | | mg/kg | 2.00 | | 108 | 38.4-163 | | | |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: CR 303 Pipeline
Project Manager: Andy Hawk

Reported:
09/11/15 07:58

Notes and Definitions

| | |
|-----|---|
| B1 | Target analyte detected in method blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the method blank or less than the reporting limit. |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry. |
| RPD | Relative Percent Difference |
| LCS | Laboratory Control Sample (Blank Spike) |
| RL | Report Limit |
| MDL | Method Detection Limit |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



service@greenanalytical.com or dzufelt@greenanalytical.com
75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]