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January 31, 2023

Jenifer Hakkarinen
PDC Energy
1775 Sherman Street
Suite 3000
Denver, CO 80203

Work Order: **HS23010683**

Laboratory Results for: **Champlin 117 Amoco G5**

Dear Jenifer Hakkarinen,

ALS Environmental received 1 sample(s) on Jan 14, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Tyler Monroe

Client: PDC Energy
Project: Champlin 117 Amoco G5
Work Order: HS23010683

SAMPLE SUMMARY

| Lab Samp ID | Client Sample ID | Matrix | TagNo | Collection Date | Date Received | Hold |
|---------------|-----------------------|--------|-------|-------------------|-------------------|--------------------------|
| HS23010683-01 | Champlin 117 Amoco G5 | Water | | 12-Jan-2023 09:20 | 14-Jan-2023 08:50 | <input type="checkbox"/> |

Client: PDC Energy
Project: Champlin 117 Amoco G5
Work Order: HS23010683

CASE NARRATIVE

GC Semivolatiles by Method RSK-175

Batch ID: R425957

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GC Semivolatiles by Method SW8015M

Batch ID: 188473

Sample ID: Champlin 117 Amoco G5 (HS23010683-01)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

GC Volatiles by Method SW8015

Batch ID: R426151

Sample ID: Champlin 117 Amoco G5 (HS23010683-01)

- Dilution required due to sample matrix.

GCMS Volatiles by Method SW8260

Batch ID: R426255

Sample ID: Champlin 117 Amoco G5 (HS23010683-01)

- Lowest practical dilution due to sample matrix and/or high concentration of non-target analyte(s).

Metals by Method E200.8

Batch ID: 188949

Sample ID: HS23011293-03MS

- MS and MSD are for an unrelated sample

Sample ID: HS23011295-03MS

- MS and MSD are for an unrelated sample

WetChemistry by Method E300

Batch ID: R426761

Sample ID: HS23010780-02MS

- MS and MSD are for an unrelated sample

Sample ID: HS23010879-03MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SM2320B

Batch ID: R426612

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: PDC Energy
Project: Champlin 117 Amoco G5
Work Order: HS23010683

CASE NARRATIVE

WetChemistry by Method M2540C

Batch ID: R426222

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: PDC Energy
 Project: Champlin 117 Amoco G5
 Sample ID: Champlin 117 Amoco G5
 Collection Date: 12-Jan-2023 09:20

ANALYTICAL REPORT
 WorkOrder:HS23010683
 Lab ID:HS23010683-01
 Matrix:Water

| ANALYSES | RESULT | QUAL | REPORT LIMIT | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|--------|-----------------------|--------------|---------------------------|-----------------|-------------------|
| LOW LEVEL VOLATILES BY SW8260C | | Method:SW8260 | | Analyst: AKP | | |
| Benzene | 2,600 | | 500 | ug/L | 500 | 20-Jan-2023 16:27 |
| Ethylbenzene | ND | | 500 | ug/L | 500 | 20-Jan-2023 16:27 |
| m,p-Xylene | 2,400 | | 1000 | ug/L | 500 | 20-Jan-2023 16:27 |
| o-Xylene | 770 | | 500 | ug/L | 500 | 20-Jan-2023 16:27 |
| Toluene | 3,300 | | 500 | ug/L | 500 | 20-Jan-2023 16:27 |
| Xylenes, Total | 3,100 | | 500 | ug/L | 500 | 20-Jan-2023 16:27 |
| Surr: 1,2-Dichloroethane-d4 | 98.2 | | 70-126 | %REC | 500 | 20-Jan-2023 16:27 |
| Surr: 4-Bromofluorobenzene | 95.9 | | 77-113 | %REC | 500 | 20-Jan-2023 16:27 |
| Surr: Dibromofluoromethane | 96.7 | | 77-123 | %REC | 500 | 20-Jan-2023 16:27 |
| Surr: Toluene-d8 | 99.9 | | 82-127 | %REC | 500 | 20-Jan-2023 16:27 |
| GASOLINE RANGE ORGANICS BY SW8015C | | Method:SW8015 | | Analyst: FT | | |
| Gasoline Range Organics | ND | | 25.0 | mg/L | 500 | 19-Jan-2023 14:06 |
| Surr: 4-Bromofluorobenzene | 104 | | 70-123 | %REC | 500 | 19-Jan-2023 14:06 |
| DISSOLVED GASES BY RSK-175 | | Method:RSK-175 | | Analyst: PPM | | |
| Ethane | 4,930 | | 400 | ug/L | 400 | 16-Jan-2023 14:54 |
| Methane | 9,160 | | 200 | ug/L | 400 | 16-Jan-2023 14:54 |
| Propane | 4,690 | | 400 | ug/L | 400 | 16-Jan-2023 14:54 |
| TPH DRO/ORO BY SW8015C | | Method:SW8015M | | Prep:SW3511 / 16-Jan-2023 | | Analyst: PPM |
| TPH (Diesel Range) | 210 | | 4.8 | mg/L | 100 | 17-Jan-2023 21:05 |
| Surr: 2-Fluorobiphenyl | 0 | JS | 60-135 | %REC | 100 | 17-Jan-2023 21:05 |
| TOTAL METALS BY E200.8, REV 5.4, 1994 | | Method:E200.8 | | Prep:E200.8 / 27-Jan-2023 | | Analyst: JC |
| Calcium | 7.17 | | 5.00 | mg/L | 1 | 30-Jan-2023 19:47 |
| Magnesium | ND | | 5.00 | mg/L | 1 | 30-Jan-2023 19:47 |
| Potassium | 566 | | 25.0 | mg/L | 5 | 30-Jan-2023 17:08 |
| Sodium | 799 | | 20.0 | mg/L | 10 | 30-Jan-2023 19:45 |
| ANIONS BY E300.0, REV 2.1, 1993 | | Method:E300 | | Analyst: TH | | |
| Chloride | 1,600 | | 25.0 | mg/L | 50 | 28-Jan-2023 11:01 |
| Sulfate | ND | | 2.50 | mg/L | 5 | 28-Jan-2023 10:55 |
| TOTAL DISSOLVED SOLIDS BY SM2540C-2011 | | Method:M2540C | | Analyst: DC | | |
| Total Dissolved Solids (Residue, Filterable) | 3,060 | | 10.0 | mg/L | 1 | 19-Jan-2023 10:30 |
| ALKALINITY BY SM 2320B-2011 | | Method:SM2320B | | Analyst: JAC | | |
| Alkalinity, Bicarbonate (As CaCO3) | 226 | | 5.00 | mg/L | 1 | 25-Jan-2023 17:53 |
| Alkalinity, Carbonate (As CaCO3) | 121 | | 5.00 | mg/L | 1 | 25-Jan-2023 17:53 |
| Alkalinity, Total (As CaCO3) | 348 | | 5.00 | mg/L | 1 | 25-Jan-2023 17:53 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

| | | |
|-------------------------|--------------------------------------|------------------------------------|
| Batch ID: 188473 | Start Date: 16 Jan 2023 14:00 | End Date: 17 Jan 2023 13:45 |
| Method: SW3511 | Prep Code: 3511_DRO | |

| Sample ID | Container | Sample Wt/Vol | Final Volume | Prep Factor | |
|---------------|-----------|---------------|--------------|-------------|-------------|
| HS23010683-01 | | 34.71 (mL) | 2 (mL) | 0.05762 | 40 mL Amber |

| | | |
|---|--------------------------------------|------------------------------------|
| Batch ID: 188949 | Start Date: 27 Jan 2023 09:00 | End Date: 27 Jan 2023 13:00 |
| Method: TOTAL METALS PREP BY E200.8, REV 5.4, 1994 | Prep Code: 200.8PR | |

| Sample ID | Container | Sample Wt/Vol | Final Volume | Prep Factor | |
|---------------|-----------|---------------|--------------|-------------|-------------------------------|
| HS23010683-01 | | 1 (mL) | 10 (mL) | 10 | 250 mL plastic, HNO3 to pH <2 |

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

DATES REPORT

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|--------------------------------|-----------------------|---|---------------|-------------------|----------------------|-----|
| Batch ID: 188473 (0) | | Test Name : TPH DRO/ORO BY SW8015C | | | Matrix: Water | |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | 16 Jan 2023 09:00 | 17 Jan 2023 21:05 | 100 |
| Batch ID: 188949 (0) | | Test Name : TOTAL METALS BY E200.8, REV 5.4, 1994 | | | Matrix: Water | |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | 27 Jan 2023 09:00 | 30 Jan 2023 19:47 | 1 |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | 27 Jan 2023 09:00 | 30 Jan 2023 19:45 | 10 |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | 27 Jan 2023 09:00 | 30 Jan 2023 17:08 | 5 |
| Batch ID: R425957 (0) | | Test Name : DISSOLVED GASES BY RSK-175 | | | Matrix: Water | |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | | 16 Jan 2023 14:54 | 400 |
| Batch ID: R426151 (0) | | Test Name : GASOLINE RANGE ORGANICS BY SW8015C | | | Matrix: Water | |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | | 19 Jan 2023 14:06 | 500 |
| Batch ID: R426222 (0) | | Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011 | | | Matrix: Water | |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | | 19 Jan 2023 10:30 | 1 |
| Batch ID: R426255 (0) | | Test Name : LOW LEVEL VOLATILES BY SW8260C | | | Matrix: Water | |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | | 20 Jan 2023 16:27 | 500 |
| Batch ID: R426612 (0) | | Test Name : ALKALINITY BY SM 2320B-2011 | | | Matrix: Water | |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | | 25 Jan 2023 17:53 | 1 |
| Batch ID: R426761 (0) | | Test Name : ANIONS BY E300.0, REV 2.1, 1993 | | | Matrix: Water | |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | | 28 Jan 2023 11:01 | 50 |
| HS23010683-01 | Champlin 117 Amoco G5 | 12 Jan 2023 09:20 | | | 28 Jan 2023 10:55 | 5 |

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

Batch ID: 188473 (0) **Instrument:** FID-16 **Method:** TPH DRO/ORO BY SW8015C

| MBLK | | Sample ID: MBLK-188473 | | Units: mg/L | | Analysis Date: 17-Jan-2023 13:15 | | | | |
|-------------------------------|----------------|-------------------------------|-------------|-----------------------|-------------|---|---------------|--------------|-----------|------|
| Client ID: | | Run ID: FID-16_426000 | | SeqNo: 7077245 | | PrepDate: 16-Jan-2023 | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| TPH (Diesel Range) | ND | 0.050 | | | | | | | | |
| <i>Surr: 2-Fluorobiphenyl</i> | <i>0.05645</i> | <i>0.0050</i> | <i>0.06</i> | <i>0</i> | <i>94.1</i> | <i>60 - 135</i> | | | | |

| LCS | | Sample ID: LCS-188473 | | Units: mg/L | | Analysis Date: 17-Jan-2023 13:44 | | | | |
|-------------------------------|----------------|------------------------------|-------------|-----------------------|------------|---|---------------|--------------|-----------|------|
| Client ID: | | Run ID: FID-16_426000 | | SeqNo: 7077246 | | PrepDate: 16-Jan-2023 | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| TPH (Diesel Range) | 0.6486 | 0.050 | 0.6 | 0 | 108 | 70 - 130 | | | | |
| <i>Surr: 2-Fluorobiphenyl</i> | <i>0.07431</i> | <i>0.0050</i> | <i>0.06</i> | <i>0</i> | <i>124</i> | <i>60 - 135</i> | | | | |

| LCSD | | Sample ID: LCSD-188473 | | Units: mg/L | | Analysis Date: 17-Jan-2023 14:14 | | | | |
|-------------------------------|----------------|-------------------------------|-------------|-----------------------|------------|---|----------------|--------------|-----------|------|
| Client ID: | | Run ID: FID-16_426000 | | SeqNo: 7077247 | | PrepDate: 16-Jan-2023 | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| TPH (Diesel Range) | 0.6396 | 0.050 | 0.6 | 0 | 107 | 70 - 130 | 0.6486 | 1.4 | 20 | |
| <i>Surr: 2-Fluorobiphenyl</i> | <i>0.07334</i> | <i>0.0050</i> | <i>0.06</i> | <i>0</i> | <i>122</i> | <i>60 - 135</i> | <i>0.07431</i> | <i>1.32</i> | <i>20</i> | |

The following samples were analyzed in this batch: HS23010683-01

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

Batch ID: R425957 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

| MBLK | | Sample ID: MBLK-230116 | | Units: ug/L | | Analysis Date: 16-Jan-2023 09:06 | | | | |
|-------------|--------|-------------------------------|---------|-----------------------|------|---|---------------|--------------|-----------|------|
| Client ID: | | Run ID: FID-4_425957 | | SeqNo: 7076296 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Ethane | ND | 1.00 | | | | | | | | |
| Methane | ND | 0.500 | | | | | | | | |
| Propane | ND | 1.00 | | | | | | | | |

| LCS | | Sample ID: LCS-230116 | | Units: ug/L | | Analysis Date: 16-Jan-2023 09:21 | | | | |
|------------|--------|------------------------------|---------|-----------------------|------|---|---------------|--------------|-----------|------|
| Client ID: | | Run ID: FID-4_425957 | | SeqNo: 7076297 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Ethane | 20.5 | 1.00 | 18.04 | 0 | 114 | 75 - 125 | | | | |
| Methane | 10.2 | 0.500 | 9.647 | 0 | 106 | 75 - 125 | | | | |
| Propane | 31.22 | 1.00 | 26.46 | 0 | 118 | 75 - 125 | | | | |

| LCSD | | Sample ID: LCSD-230116 | | Units: ug/L | | Analysis Date: 16-Jan-2023 09:37 | | | | |
|-------------|--------|-------------------------------|---------|-----------------------|------|---|---------------|--------------|-----------|------|
| Client ID: | | Run ID: FID-4_425957 | | SeqNo: 7076298 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Ethane | 19.93 | 1.00 | 18.04 | 0 | 110 | 75 - 125 | 20.5 | 2.82 | 30 | |
| Methane | 8.996 | 0.500 | 9.647 | 0 | 93.3 | 75 - 125 | 10.2 | 12.6 | 30 | |
| Propane | 32.15 | 1.00 | 26.46 | 0 | 122 | 75 - 125 | 31.22 | 2.95 | 30 | |

The following samples were analyzed in this batch: HS23010683-01

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

| | | | | | | | | | | |
|--------------------------------|-------------------------------|---------------------------|---------|---|---|---------------|---------------|------|----------------|--|
| Batch ID: R426151 (0) | | Instrument: FID-20 | | Method: GASOLINE RANGE ORGANICS BY SW8015C | | | | | | |
| MBLK | Sample ID: MBLK-230119 | Units: mg/L | | | Analysis Date: 19-Jan-2023 12:58 | | | | | |
| Client ID: | Run ID: FID-20_426151 | SeqNo: 7080450 | | PrepDate: | | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual | |

| | | | | | | | | | |
|-----------------------------------|----------------|----------------|------------|----------|-------------|-----------------|--|--|--|
| Gasoline Range Organics | ND | 0.0500 | | | | | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>0.08346</i> | <i>0.00500</i> | <i>0.1</i> | <i>0</i> | <i>83.5</i> | <i>70 - 121</i> | | | |

| | | | | | | | | | |
|------------|------------------------------|-----------------------|---------|---------------|---|---------------|---------------|------|----------------|
| LCS | Sample ID: LCS-230119 | Units: mg/L | | | Analysis Date: 19-Jan-2023 12:04 | | | | |
| Client ID: | Run ID: FID-20_426151 | SeqNo: 7080448 | | PrepDate: | | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |

| | | | | | | | | | |
|-----------------------------------|----------------|----------------|------------|----------|-------------|-----------------|--|--|--|
| Gasoline Range Organics | 1.025 | 0.0500 | 1 | 0 | 103 | 76 - 124 | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>0.08939</i> | <i>0.00500</i> | <i>0.1</i> | <i>0</i> | <i>89.4</i> | <i>52 - 138</i> | | | |

| | | | | | | | | | |
|-------------|-------------------------------|-----------------------|---------|---------------|---|---------------|---------------|------|----------------|
| LCSD | Sample ID: LCSD-230119 | Units: mg/L | | | Analysis Date: 19-Jan-2023 12:17 | | | | |
| Client ID: | Run ID: FID-20_426151 | SeqNo: 7080449 | | PrepDate: | | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |

| | | | | | | | | | |
|-----------------------------------|----------------|----------------|------------|----------|-------------|-----------------|----------------|-------------|-----------|
| Gasoline Range Organics | 0.9622 | 0.0500 | 1 | 0 | 96.2 | 76 - 124 | 1.025 | 6.33 | 20 |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>0.09031</i> | <i>0.00500</i> | <i>0.1</i> | <i>0</i> | <i>90.3</i> | <i>52 - 138</i> | <i>0.08939</i> | <i>1.03</i> | <i>20</i> |

The following samples were analyzed in this batch: HS23010683-01

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

Batch ID: 188949 (0) **Instrument:** ICPMS07 **Method:** TOTAL METALS BY E200.8, REV 5.4, 1994

| MBLK | | Sample ID: MBLK-188949 | | Units: ug/L | | Analysis Date: 30-Jan-2023 14:04 | | | |
|-------------|--------|-------------------------------|---------|-----------------------|------|---|---------------|--------------|----------------|
| Client ID: | | Run ID: ICPMS07_426817 | | SeqNo: 7096210 | | PrepDate: 27-Jan-2023 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Calcium | ND | 500 | | | | | | | |
| Magnesium | ND | 500 | | | | | | | |
| Potassium | ND | 500 | | | | | | | |
| Sodium | ND | 200 | | | | | | | |

| LCS | | Sample ID: LCS-188949 | | Units: ug/L | | Analysis Date: 30-Jan-2023 14:05 | | | |
|------------|--------|-------------------------------|---------|-----------------------|------|---|---------------|--------------|----------------|
| Client ID: | | Run ID: ICPMS07_426817 | | SeqNo: 7096211 | | PrepDate: 27-Jan-2023 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Calcium | 5071 | 500 | 5000 | 0 | 101 | 85 - 115 | | | |
| Magnesium | 5415 | 500 | 5000 | 0 | 108 | 85 - 115 | | | |
| Potassium | 5270 | 500 | 5000 | 0 | 105 | 85 - 115 | | | |
| Sodium | 5278 | 200 | 5000 | 0 | 106 | 85 - 115 | | | |

| MS | | Sample ID: HS23011295-03MS | | Units: ug/L | | Analysis Date: 30-Jan-2023 14:15 | | | |
|------------|---------|-----------------------------------|---------|-----------------------|------|---|---------------|--------------|----------------|
| Client ID: | | Run ID: ICPMS07_426817 | | SeqNo: 7096216 | | PrepDate: 27-Jan-2023 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Calcium | 65690 | 500 | 5000 | 47790 | 358 | 70 - 130 | | | SO |
| Magnesium | 25420 | 500 | 5000 | 15970 | 189 | 70 - 130 | | | S |
| Potassium | 57220 | 500 | 5000 | 41360 | 317 | 70 - 130 | | | SO |
| Sodium | 2423000 | 200 | 5000 | 1929000 | 9900 | 70 - 130 | | | SEO |

| MS | | Sample ID: HS23011293-03MS | | Units: ug/L | | Analysis Date: 30-Jan-2023 15:49 | | | |
|------------|---------|-----------------------------------|---------|-----------------------|------|---|---------------|--------------|----------------|
| Client ID: | | Run ID: ICPMS07_426817 | | SeqNo: 7096340 | | PrepDate: 27-Jan-2023 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Calcium | 43390 | 500 | 5000 | 33200 | 204 | 70 - 130 | | | SO |
| Magnesium | 7895 | 500 | 5000 | 2134 | 115 | 70 - 130 | | | |
| Potassium | 366000 | 500 | 5000 | 361100 | 97.5 | 70 - 130 | | | EO |
| Sodium | 1310000 | 200 | 5000 | 1277000 | 675 | 70 - 130 | | | SEO |

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

Batch ID: 188949 (0) **Instrument:** ICPMS07 **Method:** TOTAL METALS BY E200.8, REV 5.4, 1994

| MSD | | Sample ID: HS23011295-03MSD | | | Units: ug/L | | Analysis Date: 30-Jan-2023 14:17 | | | |
|------------|---------|-----------------------------|---------|---------------|----------------|---------------|----------------------------------|------|-----------|------|
| Client ID: | | Run ID: ICPMS07_426817 | | | SeqNo: 7096217 | | PrepDate: 27-Jan-2023 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 59380 | 500 | 5000 | 47790 | 232 | 70 - 130 | 65690 | 10.1 | 20 | SO |
| Magnesium | 23390 | 500 | 5000 | 15970 | 148 | 70 - 130 | 25420 | 8.31 | 20 | S |
| Potassium | 51810 | 500 | 5000 | 41360 | 209 | 70 - 130 | 57220 | 9.92 | 20 | SO |
| Sodium | 2139000 | 200 | 5000 | 1929000 | 4200 | 70 - 130 | 2423000 | 12.5 | 20 | SEO |

| MSD | | Sample ID: HS23011293-03MSD | | | Units: ug/L | | Analysis Date: 30-Jan-2023 14:11 | | | |
|------------|---------|-----------------------------|---------|---------------|----------------|---------------|----------------------------------|-------|-----------|------|
| Client ID: | | Run ID: ICPMS07_426817 | | | SeqNo: 7096214 | | PrepDate: 27-Jan-2023 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 42360 | 500 | 5000 | 33200 | 183 | 70 - 130 | 43390 | 2.4 | 20 | SO |
| Magnesium | 7837 | 500 | 5000 | 2134 | 114 | 70 - 130 | 7895 | 0.741 | 20 | |
| Potassium | 365100 | 500 | 5000 | 361100 | 80.6 | 70 - 130 | 366000 | 0.232 | 20 | EO |
| Sodium | 1329000 | 200 | 5000 | 1277000 | 1040 | 70 - 130 | 1310000 | 1.38 | 20 | SEO |

The following samples were analyzed in this batch: HS23010683-01

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

Batch ID: R426255 (0) **Instrument:** VOA7 **Method:** LOW LEVEL VOLATILES BY SW8260C

| MBLK | | Sample ID: VBLKW-230120 | | Units: ug/L | | Analysis Date: 20-Jan-2023 10:02 | | | |
|------------------------------------|--------------|--------------------------------|-----------|-----------------------|-------------|---|---------------|--------------|----------------|
| Client ID: | | Run ID: VOA7_426255 | | SeqNo: 7082811 | | PrepDate: | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Benzene | ND | 1.0 | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | |
| m,p-Xylene | ND | 2.0 | | | | | | | |
| o-Xylene | ND | 1.0 | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | |
| Xylenes, Total | ND | 1.0 | | | | | | | |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>48.41</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>96.8</i> | <i>70 - 123</i> | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>48.78</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>97.6</i> | <i>77 - 113</i> | | | |
| <i>Surr: Dibromofluoromethane</i> | <i>48.31</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>96.6</i> | <i>73 - 126</i> | | | |
| <i>Surr: Toluene-d8</i> | <i>49.9</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>99.8</i> | <i>81 - 120</i> | | | |

| LCS | | Sample ID: VLCSW-230120 | | Units: ug/L | | Analysis Date: 20-Jan-2023 09:19 | | | |
|------------------------------------|--------------|--------------------------------|-----------|-----------------------|-------------|---|---------------|--------------|----------------|
| Client ID: | | Run ID: VOA7_426255 | | SeqNo: 7082810 | | PrepDate: | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Benzene | 19.8 | 1.0 | 20 | 0 | 99.0 | 74 - 120 | | | |
| Ethylbenzene | 20.71 | 1.0 | 20 | 0 | 104 | 77 - 117 | | | |
| m,p-Xylene | 41.01 | 2.0 | 40 | 0 | 103 | 77 - 122 | | | |
| o-Xylene | 20.58 | 1.0 | 20 | 0 | 103 | 75 - 119 | | | |
| Toluene | 19.76 | 1.0 | 20 | 0 | 98.8 | 77 - 118 | | | |
| Xylenes, Total | 61.59 | 1.0 | 60 | 0 | 103 | 75 - 122 | | | |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>50.21</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>100</i> | <i>70 - 123</i> | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>50.11</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>100</i> | <i>77 - 113</i> | | | |
| <i>Surr: Dibromofluoromethane</i> | <i>48.35</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>96.7</i> | <i>73 - 126</i> | | | |
| <i>Surr: Toluene-d8</i> | <i>50.12</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>100</i> | <i>81 - 120</i> | | | |

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

Batch ID: R426255 (0) **Instrument:** VOA7 **Method:** LOW LEVEL VOLATILES BY SW8260C

| MS | | Sample ID: HS23010908-02MS | | Units: ug/L | | Analysis Date: 20-Jan-2023 13:14 | | | | |
|------------------------------------|--------------|-----------------------------------|-----------|-----------------------|-------------|---|---------------|--------------|-----------|------|
| Client ID: | | Run ID: VOA7_426255 | | SeqNo: 7082820 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Benzene | 18.27 | 1.0 | 20 | 0 | 91.3 | 70 - 127 | | | | |
| Ethylbenzene | 19.5 | 1.0 | 20 | 0 | 97.5 | 70 - 124 | | | | |
| m,p-Xylene | 38.56 | 2.0 | 40 | 0 | 96.4 | 70 - 130 | | | | |
| o-Xylene | 18.68 | 1.0 | 20 | 0 | 93.4 | 70 - 124 | | | | |
| Toluene | 18.58 | 1.0 | 20 | 0 | 92.9 | 70 - 123 | | | | |
| Xylenes, Total | 57.23 | 1.0 | 60 | 0 | 95.4 | 70 - 130 | | | | |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>49.95</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>99.9</i> | <i>70 - 126</i> | | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>50.1</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>100</i> | <i>77 - 113</i> | | | | |
| <i>Surr: Dibromofluoromethane</i> | <i>49.41</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>98.8</i> | <i>77 - 123</i> | | | | |
| <i>Surr: Toluene-d8</i> | <i>49.65</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>99.3</i> | <i>82 - 127</i> | | | | |

| MSD | | Sample ID: HS23010908-02MSD | | Units: ug/L | | Analysis Date: 20-Jan-2023 13:36 | | | | |
|------------------------------------|--------------|------------------------------------|-----------|-----------------------|-------------|---|---------------|--------------|-----------|------|
| Client ID: | | Run ID: VOA7_426255 | | SeqNo: 7082821 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Benzene | 17.28 | 1.0 | 20 | 0 | 86.4 | 70 - 127 | 18.27 | 5.53 | 20 | |
| Ethylbenzene | 18.7 | 1.0 | 20 | 0 | 93.5 | 70 - 124 | 19.5 | 4.19 | 20 | |
| m,p-Xylene | 37.27 | 2.0 | 40 | 0 | 93.2 | 70 - 130 | 38.56 | 3.39 | 20 | |
| o-Xylene | 18.26 | 1.0 | 20 | 0 | 91.3 | 70 - 124 | 18.68 | 2.26 | 20 | |
| Toluene | 17.88 | 1.0 | 20 | 0 | 89.4 | 70 - 123 | 18.58 | 3.85 | 20 | |
| Xylenes, Total | 55.53 | 1.0 | 60 | 0 | 92.5 | 70 - 130 | 57.23 | 3.02 | 20 | |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>50.8</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>102</i> | <i>70 - 126</i> | <i>49.95</i> | <i>1.69</i> | <i>20</i> | |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>49.97</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>99.9</i> | <i>77 - 113</i> | <i>50.1</i> | <i>0.254</i> | <i>20</i> | |
| <i>Surr: Dibromofluoromethane</i> | <i>49.82</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>99.6</i> | <i>77 - 123</i> | <i>49.41</i> | <i>0.84</i> | <i>20</i> | |
| <i>Surr: Toluene-d8</i> | <i>49.95</i> | <i>1.0</i> | <i>50</i> | <i>0</i> | <i>99.9</i> | <i>82 - 127</i> | <i>49.65</i> | <i>0.607</i> | <i>20</i> | |

The following samples were analyzed in this batch: HS23010683-01

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

Batch ID: R426222 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

| | | | | | | | | | | |
|-------------|---------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|--|
| MBLK | Sample ID: WBLK-01162023 | Units: mg/L | | Analysis Date: 19-Jan-2023 10:30 | | | | | | |
| Client ID: | Run ID: Balance1_426222 | SeqNo: 7082171 | | PrepDate: | | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual | |

Total Dissolved Solids (Residue, Filterable) ND 10.0

| | | | | | | | | | | |
|------------|--------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|--|
| LCS | Sample ID: LCS-01162023 | Units: mg/L | | Analysis Date: 19-Jan-2023 10:30 | | | | | | |
| Client ID: | Run ID: Balance1_426222 | SeqNo: 7082170 | | PrepDate: | | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual | |

Total Dissolved Solids (Residue, Filterable) 914 10.0 1000 0 91.4 85 - 115

| | | | | | | | | | | |
|------------|------------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|--|
| DUP | Sample ID: HS23010778-02DUP | Units: mg/L | | Analysis Date: 19-Jan-2023 10:30 | | | | | | |
| Client ID: | Run ID: Balance1_426222 | SeqNo: 7082163 | | PrepDate: | | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual | |

Total Dissolved Solids (Residue, Filterable) ND 10.0 -12 0 5

| | | | | | | | | | | |
|------------|------------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|--|
| DUP | Sample ID: HS23010749-01DUP | Units: mg/L | | Analysis Date: 19-Jan-2023 10:30 | | | | | | |
| Client ID: | Run ID: Balance1_426222 | SeqNo: 7082153 | | PrepDate: | | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual | |

Total Dissolved Solids (Residue, Filterable) 44 10.0 44 0 5

The following samples were analyzed in this batch: HS23010683-01

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

| | | |
|--------------------------------|------------------------------|--|
| Batch ID: R426612 (0) | Instrument: ManTech01 | Method: ALKALINITY BY SM 2320B-2011 |
|--------------------------------|------------------------------|--|

| | | | | | | | | | | |
|------------------------------------|---------------------------------|-----------------------|---|---------------|------|---------------|---------------|------|-----------|------|
| MBLK | Sample ID: WBLKW1-012523 | Units: mg/L | Analysis Date: 25-Jan-2023 14:37 | | | | | | | |
| Client ID: | Run ID: ManTech01_426612 | SeqNo: 7090267 | PrepDate: DF: 1 | | | | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Alkalinity, Bicarbonate (As CaCO3) | ND | 5.00 | | | | | | | | |
| Alkalinity, Carbonate (As CaCO3) | ND | 5.00 | | | | | | | | |
| Alkalinity, Total (As CaCO3) | ND | 5.00 | | | | | | | | |

| | | | | | | | | | | |
|----------------------------------|---------------------------------|-----------------------|---|---------------|------|---------------|---------------|------|-----------|------|
| LCS | Sample ID: LCS1-012523 | Units: mg/L | Analysis Date: 25-Jan-2023 14:47 | | | | | | | |
| Client ID: | Run ID: ManTech01_426612 | SeqNo: 7090268 | PrepDate: DF: 1 | | | | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Alkalinity, Carbonate (As CaCO3) | 1084 | 5.00 | 1000 | 0 | 108 | 85 - 115 | | | | |
| Alkalinity, Total (As CaCO3) | 1114 | 5.00 | 1000 | 0 | 111 | 85 - 115 | | | | |

| | | | | | | | | | | |
|----------------------------------|---------------------------------|-----------------------|---|---------------|------|---------------|---------------|-------|-----------|------|
| LCSD | Sample ID: LCSD1-012523 | Units: mg/L | Analysis Date: 25-Jan-2023 14:56 | | | | | | | |
| Client ID: | Run ID: ManTech01_426612 | SeqNo: 7090269 | PrepDate: DF: 1 | | | | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Alkalinity, Carbonate (As CaCO3) | 1086 | 5.00 | 1000 | 0 | 109 | 85 - 115 | 1084 | 0.205 | 20 | |
| Alkalinity, Total (As CaCO3) | 1118 | 5.00 | 1000 | 0 | 112 | 85 - 115 | 1114 | 0.339 | 20 | |

| | | | | | | | | | | |
|------------------------------------|------------------------------------|-----------------------|---|---------------|------|---------------|---------------|------|-----------|------|
| DUP | Sample ID: HS23010566-10DUP | Units: mg/L | Analysis Date: 25-Jan-2023 15:10 | | | | | | | |
| Client ID: | Run ID: ManTech01_426612 | SeqNo: 7090271 | PrepDate: DF: 1 | | | | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Alkalinity, Bicarbonate (As CaCO3) | 134.7 | 5.00 | | | | | 115.5 | 15.3 | 20 | |
| Alkalinity, Carbonate (As CaCO3) | ND | 5.00 | | | | | 0 | 0 | 20 | |
| Alkalinity, Total (As CaCO3) | 134.7 | 5.00 | | | | | 115.5 | 15.3 | 20 | |

The following samples were analyzed in this batch: HS23010683-01

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

| Batch ID: R426761 (0) | | Instrument: ICS-Integrion | | | Method: ANIONS BY E300.0, REV 2.1, 1993 | | | | | |
|-------------------------|-----------------------------------|-------------------------------------|---------|---------------|---|---------------|---------------|------|--------------|------|
| MBLK | Sample ID: MBLK | Units: mg/L | | | Analysis Date: 28-Jan-2023 10:09 | | | | | |
| Client ID: | | Run ID: ICS-Integrion_426761 | | | SeqNo: 7094163 | | PrepDate: | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | ND | 0.500 | | | | | | | | |
| Sulfate | ND | 0.500 | | | | | | | | |
| LCS | Sample ID: LCS | Units: mg/L | | | Analysis Date: 28-Jan-2023 10:15 | | | | | |
| Client ID: | | Run ID: ICS-Integrion_426761 | | | SeqNo: 7094164 | | PrepDate: | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | 21.04 | 0.500 | 20 | 0 | 105 | 90 - 110 | | | | |
| Sulfate | 21.61 | 0.500 | 20 | 0 | 108 | 90 - 110 | | | | |
| MS | Sample ID: HS23010879-01MS | Units: mg/L | | | Analysis Date: 28-Jan-2023 11:41 | | | | | |
| Client ID: | | Run ID: ICS-Integrion_426761 | | | SeqNo: 7094176 | | PrepDate: | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | 395.6 | 0.500 | 10 | 398.1 | -24.7 | 80 - 120 | | | | SEO |
| Sulfate | 15.05 | 0.500 | 10 | 4.217 | 108 | 80 - 120 | | | | |
| MS | Sample ID: HS23010780-03MS | Units: mg/L | | | Analysis Date: 28-Jan-2023 14:35 | | | | | |
| Client ID: | | Run ID: ICS-Integrion_426761 | | | SeqNo: 7094200 | | PrepDate: | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | 10.15 | 0.500 | 10 | 0.065 | 101 | 80 - 120 | | | | |
| Sulfate | 10.55 | 0.500 | 10 | 0.0241 | 105 | 80 - 120 | | | | |
| MS | Sample ID: HS23010780-02MS | Units: mg/L | | | Analysis Date: 28-Jan-2023 13:32 | | | | | |
| Client ID: | | Run ID: ICS-Integrion_426761 | | | SeqNo: 7094192 | | PrepDate: | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | 150.2 | 0.500 | 10 | 142.9 | 72.8 | 80 - 120 | | | | SEO |
| Sulfate | 84.05 | 0.500 | 10 | 78.8 | 52.4 | 80 - 120 | | | | SO |

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

QC BATCH REPORT

Batch ID: R426761 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

| MSD | | Sample ID: HS23010879-01MSD | | Units: mg/L | | Analysis Date: 28-Jan-2023 11:47 | | | | |
|------------|--------|------------------------------|---------|----------------|------|----------------------------------|---------------|-------|-----------|------|
| Client ID: | | Run ID: ICS-Integrion_426761 | | SeqNo: 7094177 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | 373 | 0.500 | 10 | 398.1 | -250 | 80 - 120 | 395.6 | 5.87 | 20 | SEO |
| Sulfate | 14.16 | 0.500 | 10 | 4.217 | 99.4 | 80 - 120 | 15.05 | 6.09 | 20 | |

| MSD | | Sample ID: HS23010780-03MSD | | Units: mg/L | | Analysis Date: 28-Jan-2023 14:41 | | | | |
|------------|--------|------------------------------|---------|----------------|------|----------------------------------|---------------|-------|-----------|------|
| Client ID: | | Run ID: ICS-Integrion_426761 | | SeqNo: 7094201 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | 9.692 | 0.500 | 10 | 0.065 | 96.3 | 80 - 120 | 10.15 | 4.63 | 20 | |
| Sulfate | 10.04 | 0.500 | 10 | 0.0241 | 100 | 80 - 120 | 10.55 | 4.91 | 20 | |

| MSD | | Sample ID: HS23010780-02MSD | | Units: mg/L | | Analysis Date: 28-Jan-2023 13:37 | | | | |
|------------|--------|------------------------------|---------|----------------|------|----------------------------------|---------------|--------|-----------|------|
| Client ID: | | Run ID: ICS-Integrion_426761 | | SeqNo: 7094193 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | 149.9 | 0.500 | 10 | 142.9 | 69.7 | 80 - 120 | 150.2 | 0.207 | 20 | SEO |
| Sulfate | 84.01 | 0.500 | 10 | 78.8 | 52.1 | 80 - 120 | 84.05 | 0.0386 | 20 | SO |

The following samples were analyzed in this batch: HS23010683-01

Client: PDC Energy
Project: Champlin 117 Amoco G5
WorkOrder: HS23010683

**QUALIFIERS,
ACRONYMS, UNITS**

| Qualifier | Description |
|------------------|---|
| * | Value exceeds Regulatory Limit |
| a | Not accredited |
| B | Analyte detected in the associated Method Blank above the Reporting Limit |
| E | Value above quantitation range |
| H | Analyzed outside of Holding Time |
| J | Analyte detected below quantitation limit |
| M | Manually integrated, see raw data for justification |
| n | Not offered for accreditation |
| ND | Not Detected at the Reporting Limit |
| O | Sample amount is > 4 times amount spiked |
| P | Dual Column results percent difference > 40% |
| R | RPD above laboratory control limit |
| S | Spike Recovery outside laboratory control limits |
| U | Analyzed but not detected above the MDL/SDL |

| Acronym | Description |
|----------------|-------------------------------------|
| DCS | Detectability Check Study |
| DUP | Method Duplicate |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| MBLK | Method Blank |
| MDL | Method Detection Limit |
| MQL | Method Quantitation Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| PDS | Post Digestion Spike |
| PQL | Practical Quantitation Limit |
| SD | Serial Dilution |
| SDL | Sample Detection Limit |
| TRRP | Texas Risk Reduction Program |

| Unit Reported | Description |
|----------------------|----------------------|
| mg/L | Milligrams per Liter |

CERTIFICATIONS,ACCREDITATIONS & LICENSES

| Agency | Number | Expire Date |
|-----------------|--------------------|--------------------|
| Arkansas | 22-041-0 | 27-Mar-2023 |
| California | 2919 2022-2023 | 30-Apr-2023 |
| Dept of Defense | L21-682 | 31-Dec-2023 |
| Florida | E87611-36 | 30-Jun-2023 |
| Illinois | 2000322022-9 | 09-May-2023 |
| Kansas | E-10352; 2022-2023 | 31-Jul-2023 |
| Kentucky | 123043, 2022-2023 | 30-Apr-2023 |
| Louisiana | 03087, 2022-2023 | 30-Jun-2023 |
| Maryland | 343, 2022-2023 | 30-Jun-2023 |
| North Carolina | 624-2023 | 31-Dec-2023 |
| North Dakota | R-193 2022-2023 | 30-Apr-2023 |
| Oklahoma | 2022-141 | 31-Aug-2023 |
| Texas | T104704231-22-29 | 30-Apr-2023 |
| Utah | TX026932022-13 | 31-Jul-2023 |

Sample Receipt Checklist

Work Order ID: HS23010683

Date/Time Received: 14-Jan-2023 08:50

Client Name: PDC Energy 80203

Received by: Corey Grandits

| | | | |
|----------------------------------|-------------------|-------------------------------|-------------------|
| Completed By: /S/ Corey Grandits | 16-Jan-2023 12:26 | Reviewed by: /S/ Tyler Monroe | 16-Jan-2023 14:56 |
| eSignature | Date/Time | eSignature | Date/Time |

Matrices: **W**

Carrier name: **FedEx**

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes No Not Present
- Chain of custody present? Yes No 1 Page(s)
- Chain of custody signed when relinquished and received? Yes No
- Samplers name present on COC? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

| | | |
|--|---|---|
| Temperature(s)/Thermometer(s): | 1.8uc/1.3c | IR31 |
| Cooler(s)/Kit(s): | 49618 | |
| Date/Time sample(s) sent to storage: | 1/16/23 | |
| Water - VOA vials have zero headspace? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| pH adjusted? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/> |
| pH adjusted by: | | |

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

49618

JAN 14 2023

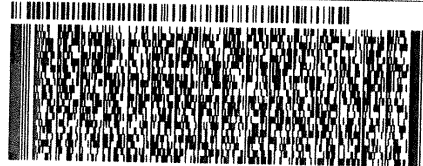
ORIGIN ID:6XYA (970) 905-1648
AMY KEPHART
ALS
965 E 11TH ST
LOVELAND, CO 80537
UNITED STATES US

SHIP DATE: 13JAN23
ACTWGT: 43.95 LB
CAD: 0487862/CAFE3618
DIMS: 24x14x12 IN
BILL THIRD PARTY

TO **SAMPLE RECEIVING**
ALS
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099

49618

REF: WSP & PDC



TRK# 6182 5243 5095
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099
TX-US IAH

REF: 187077-454-11W/EXP 0022

