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October 28, 2022

Max Trehus  
PDC Energy  
4000 Burlington Ave.  
Evans, CO 80620

Work Order: **HS22100753**

Laboratory Results for: **Wayne 01N**

Dear Max Trehus ,

ALS Environmental received 2 sample(s) on Oct 14, 2022 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: DAYNA.FISHER

Tyler Monroe

**Client:** PDC Energy  
**Project:** Wayne 01N  
**Work Order:** HS22100753

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS22100753-01	W-01N A	Water		12-Oct-2022 16:00	14-Oct-2022 08:50	<input type="checkbox"/>
HS22100753-02	W-01N B	Water		12-Oct-2022 16:00	14-Oct-2022 08:50	<input type="checkbox"/>

**Client:** PDC Energy  
**Project:** Wayne 01N  
**Work Order:** HS22100753

**CASE NARRATIVE**

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**GC Semivolatiles by Method RSK-175****Batch ID: R420291**

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

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**GC Semivolatiles by Method SW8015M****Batch ID: 184944****Sample ID: W-01N A (HS22100753-01)**

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

**Sample ID: LCSD-184944**

- The RPD between the LCS and LCSD was outside of the control limit.

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**GC Volatiles by Method SW8015****Batch ID: R419917****Sample ID: W-01N A (HS22100753-01)**

- Surrogate failed outside control limits high due to matrix interference. This was confirmed by reanalysis. Result may be biased high.

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**GCMS Volatiles by Method SW8260****Batch ID: R420290****Sample ID: W-01N A (HS22100753-01)**

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

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**Metals by Method E200.8****Batch ID: 185333****Sample ID: HS22100729-02MS**

- MS and MSD are for an unrelated sample

**Sample ID: W-01N B (HS22100753-02)**

- Sample ran at 5x due to sample matrix.

**Batch ID: 185319****Sample ID: W-01N A (HS22100753-01)**

- Sample ran at 5x due to sample matrix.

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**WetChemistry by Method SM2320B****Batch ID: R420359**

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

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**Client:** PDC Energy  
**Project:** Wayne 01N  
**Work Order:** HS22100753

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**CASE NARRATIVE**

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**WetChemistry by Method E300**

**Batch ID: R419930**

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

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**WetChemistry by Method M2540C**

**Batch ID: R419900**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
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Client: PDC Energy  
 Project: Wayne 01N  
 Sample ID: W-01N A  
 Collection Date: 12-Oct-2022 16:00

**ANALYTICAL REPORT**

WorkOrder:HS22100753  
 Lab ID:HS22100753-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>		Analyst: AKP			
Benzene	62		10	50	ug/L	50	26-Oct-2022 10:43
Ethylbenzene	64		15	50	ug/L	50	26-Oct-2022 10:43
m,p-Xylene	420		25	100	ug/L	50	26-Oct-2022 10:43
o-Xylene	170		15	50	ug/L	50	26-Oct-2022 10:43
Toluene	260		10	50	ug/L	50	26-Oct-2022 10:43
Xylenes, Total	590		15	50	ug/L	50	26-Oct-2022 10:43
Surr: 1,2-Dichloroethane-d4	94.8			70-126	%REC	50	26-Oct-2022 10:43
Surr: 4-Bromofluorobenzene	98.0			77-113	%REC	50	26-Oct-2022 10:43
Surr: Dibromofluoromethane	95.8			77-123	%REC	50	26-Oct-2022 10:43
Surr: Toluene-d8	97.1			82-127	%REC	50	26-Oct-2022 10:43
<b>GASOLINE RANGE ORGANICS BY SW8015C</b>		<b>Method:SW8015</b>		Analyst: FT			
Gasoline Range Organics	352		0.500	2.50	mg/L	50	20-Oct-2022 14:39
Surr: 4-Bromofluorobenzene	2690	S		70-123	%REC	50	20-Oct-2022 14:39
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>		Analyst: PPM			
Ethane	1,150		72.0	500	ug/L	500	25-Oct-2022 10:34
Methane	896		53.5	250	ug/L	500	25-Oct-2022 10:34
Propane	583		500	500	ug/L	500	25-Oct-2022 10:34
<b>TPH DRO/ORO BY SW8015C</b>		<b>Method:SW8015M</b>		Prep:SW3511 / 17-Oct-2022		Analyst: PPM	
DRO (>C10 - C28)	4,000		21	53	mg/L	1000	22-Oct-2022 03:49
Surr: 2-Fluorobiphenyl	0	JS		60-135	%REC	1000	22-Oct-2022 03:49
<b>TOTAL METALS BY E200.8, REV 5.4, 1994</b>		<b>Method:E200.8</b>		Prep:E200.8 / 26-Oct-2022		Analyst: JHD	
Calcium	1,490		0.360	10.0	mg/L	20	27-Oct-2022 12:28
Magnesium	0.437	J	0.0390	2.50	mg/L	5	28-Oct-2022 11:51
Potassium	450		0.660	10.0	mg/L	20	27-Oct-2022 12:28
Sodium	501		0.420	4.00	mg/L	20	27-Oct-2022 12:28
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>		Analyst: TH			
Chloride	3,160		10.0	25.0	mg/L	50	20-Oct-2022 17:12
Sulfate	127		1.00	2.50	mg/L	5	20-Oct-2022 17:07
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>		Analyst: CWG			
Total Dissolved Solids (Residue, Filterable)	23,300		5.00	10.0	mg/L	1	19-Oct-2022 17:48
<b>ALKALINITY BY SM 2320B-2011</b>		<b>Method:SM2320B</b>		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	U		50.0	50.0	mg/L	10	26-Oct-2022 23:24
Alkalinity, Carbonate (As CaCO3)	749		50.0	50.0	mg/L	10	26-Oct-2022 23:24
Alkalinity, Total (As CaCO3)	830		50.0	50.0	mg/L	10	26-Oct-2022 23:24

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

Client: PDC Energy  
Project: Wayne 01N  
Sample ID: W-01N B  
Collection Date: 12-Oct-2022 16:00

**ANALYTICAL REPORT**

WorkOrder:HS22100753  
Lab ID:HS22100753-02  
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY E200.8, REV 5.4, 1994	Method:E200.8 (dissolved)				Prep:E200.8 / 26-Oct-2022		Analyst: JC
Calcium	1,390		0.360	10.0	mg/L	20	27-Oct-2022 15:18
Magnesium	0.175	J	0.0390	2.50	mg/L	5	28-Oct-2022 12:36
Potassium	483		0.660	10.0	mg/L	20	27-Oct-2022 15:18
Sodium	543		0.420	4.00	mg/L	20	27-Oct-2022 15:18

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

## Weight / Prep Log

Client: PDC Energy

Project: Wayne 01N

WorkOrder: HS22100753

<b>Batch ID:</b> 184890	<b>Start Date:</b> 14 Oct 2022 18:00	<b>End Date:</b> 14 Oct 2022 18:30
<b>Method:</b> SAMPLE FILTRATION - 0.45 MICRON FILTER	<b>Prep Code:</b> FILTRATION	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22100753-02		100 (mL)	100 (mL)	1	120 ml Plastic, Neat

<b>Batch ID:</b> 184944	<b>Start Date:</b> 17 Oct 2022 10:30	<b>End Date:</b> 18 Oct 2022 15:00
<b>Method:</b> SW3511	<b>Prep Code:</b> 3511_DRO	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22100753-01		30.85 (mL)	2 (mL)	0.06483	40 mL Amber

<b>Batch ID:</b> 185319	<b>Start Date:</b> 26 Oct 2022 08:00	<b>End Date:</b> 26 Oct 2022 12:00
<b>Method:</b> TOTAL METALS PREP BY E200.8, REV 5.4, 1994	<b>Prep Code:</b> 200.8PR	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22100753-01		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2

<b>Batch ID:</b> 185333	<b>Start Date:</b> 26 Oct 2022 14:00	<b>End Date:</b> 26 Oct 2022 18:00
<b>Method:</b> DISSOLVED METALS DIGESTION BY E200.8,REV 5.4,1994	<b>Prep Code:</b> 200.8_DISSPR	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22100753-02		10 (mL)	10 (mL)	1	120 ml Plastic, Neat

**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 184944 ( 1 )		<b>Test Name :</b> TPH DRO/ORO BY SW8015C			<b>Matrix:</b> Water	
HS22100753-01	W-01N A	12 Oct 2022 16:00		17 Oct 2022 10:30	22 Oct 2022 03:49	1000
<b>Batch ID:</b> 185319 ( 0 )		<b>Test Name :</b> TOTAL METALS BY E200.8, REV 5.4, 1994			<b>Matrix:</b> Water	
HS22100753-01	W-01N A	12 Oct 2022 16:00		26 Oct 2022 08:00	28 Oct 2022 11:51	5
HS22100753-01	W-01N A	12 Oct 2022 16:00		26 Oct 2022 08:00	27 Oct 2022 12:28	20
<b>Batch ID:</b> 185333 ( 0 )		<b>Test Name :</b> DISSOLVED METALS BY E200.8, REV 5.4, 1994			<b>Matrix:</b> Water	
HS22100753-02	W-01N B	12 Oct 2022 16:00		26 Oct 2022 14:00	28 Oct 2022 12:36	5
HS22100753-02	W-01N B	12 Oct 2022 16:00		26 Oct 2022 14:00	27 Oct 2022 15:18	20
<b>Batch ID:</b> R419900 ( 0 )		<b>Test Name :</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011			<b>Matrix:</b> Water	
HS22100753-01	W-01N A	12 Oct 2022 16:00			19 Oct 2022 17:48	1
<b>Batch ID:</b> R419917 ( 0 )		<b>Test Name :</b> GASOLINE RANGE ORGANICS BY SW8015C			<b>Matrix:</b> Water	
HS22100753-01	W-01N A	12 Oct 2022 16:00			20 Oct 2022 14:39	50
<b>Batch ID:</b> R419930 ( 0 )		<b>Test Name :</b> ANIONS BY E300.0, REV 2.1, 1993			<b>Matrix:</b> Water	
HS22100753-01	W-01N A	12 Oct 2022 16:00			20 Oct 2022 17:12	50
HS22100753-01	W-01N A	12 Oct 2022 16:00			20 Oct 2022 17:07	5
<b>Batch ID:</b> R420290 ( 0 )		<b>Test Name :</b> LOW LEVEL VOLATILES BY SW8260C			<b>Matrix:</b> Water	
HS22100753-01	W-01N A	12 Oct 2022 16:00			26 Oct 2022 10:43	50
<b>Batch ID:</b> R420291 ( 0 )		<b>Test Name :</b> DISSOLVED GASES BY RSK-175			<b>Matrix:</b> Water	
HS22100753-01	W-01N A	12 Oct 2022 16:00			25 Oct 2022 10:34	500
<b>Batch ID:</b> R420359 ( 0 )		<b>Test Name :</b> ALKALINITY BY SM 2320B-2011			<b>Matrix:</b> Water	
HS22100753-01	W-01N A	12 Oct 2022 16:00			26 Oct 2022 23:24	10



**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**QC BATCH REPORT**

Batch ID: 184944 ( 1 )		Instrument: FID-16		Method: TPH DRO/ORO BY SW8015C					
<b>MBLK</b>	Sample ID: <b>MBLK-184944</b>	Units: <b>mg/L</b>		Analysis Date: <b>19-Oct-2022 15:10</b>					
Client ID:	Run ID: <b>FID-16_420103</b>		SeqNo: <b>6938855</b>		PrepDate: <b>17-Oct-2022</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
DRO (>C10 - C28)	U	0.050							
<i>Surr: 2-Fluorobiphenyl</i>	<i>0.06381</i>	<i>0.0050</i>	<i>0.06</i>	<i>0</i>	<i>106</i>	<i>60 - 135</i>			
<b>LCS</b>	Sample ID: <b>LCS-184944</b>	Units: <b>mg/L</b>		Analysis Date: <b>19-Oct-2022 15:40</b>					
Client ID:	Run ID: <b>FID-16_420103</b>		SeqNo: <b>6938856</b>		PrepDate: <b>17-Oct-2022</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
DRO (>C10 - C28)	0.6207	0.050	0.6	0	103	70 - 130			
<i>Surr: 2-Fluorobiphenyl</i>	<i>0.06044</i>	<i>0.0050</i>	<i>0.06</i>	<i>0</i>	<i>101</i>	<i>60 - 135</i>			
<b>LCSD</b>	Sample ID: <b>LCSD-184944</b>	Units: <b>mg/L</b>		Analysis Date: <b>19-Oct-2022 16:09</b>					
Client ID:	Run ID: <b>FID-16_420103</b>		SeqNo: <b>6938889</b>		PrepDate: <b>17-Oct-2022</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
DRO (>C10 - C28)	0.6745	0.050	0.6	0	112	70 - 130	0.6207	8.3	20
<i>Surr: 2-Fluorobiphenyl</i>	<i>0.007233</i>	<i>0.0050</i>	<i>0.06</i>	<i>0</i>	<i>12.1</i>	<i>60 - 135</i>	<i>0.06044</i>	<i>157</i>	<i>20 SR</i>

The following samples were analyzed in this batch: HS22100753-01

Client: PDC Energy  
 Project: Wayne 01N  
 WorkOrder: HS22100753

## QC BATCH REPORT

Batch ID: R420291 ( 0 )		Instrument: FID-4		Method: DISSOLVED GASES BY RSK-175					
<b>MBLK</b>	Sample ID: <b>MBLK-221025</b>	Units: <b>ug/L</b>		Analysis Date: <b>25-Oct-2022 08:47</b>					
Client ID:	Run ID: <b>FID-4_420291</b>	SeqNo: <b>6943366</b>		PrepDate:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Ethane	U	1.00							
Methane	U	0.500							
Propane	U	1.00							

<b>LCS</b>	Sample ID: <b>LCS-221025</b>	Units: <b>ug/L</b>		Analysis Date: <b>25-Oct-2022 09:00</b>					
Client ID:	Run ID: <b>FID-4_420291</b>	SeqNo: <b>6943367</b>		PrepDate:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Ethane	20.08	1.00	18.04	0	111	75 - 125			
Methane	10.08	0.500	9.647	0	104	75 - 125			
Propane	30.83	1.00	26.46	0	117	75 - 125			

<b>LCSD</b>	Sample ID: <b>LCSD-221025</b>	Units: <b>ug/L</b>		Analysis Date: <b>25-Oct-2022 09:15</b>					
Client ID:	Run ID: <b>FID-4_420291</b>	SeqNo: <b>6943368</b>		PrepDate:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Ethane	20.4	1.00	18.04	0	113	75 - 125	20.08	1.57	30
Methane	9.276	0.500	9.647	0	96.2	75 - 125	10.08	8.27	30
Propane	31.71	1.00	26.46	0	120	75 - 125	30.83	2.83	30

The following samples were analyzed in this batch: HS22100753-01

Client: PDC Energy  
 Project: Wayne 01N  
 WorkOrder: HS22100753

## QC BATCH REPORT

Batch ID: R419917 ( 0 )		Instrument: FID-20		Method: GASOLINE RANGE ORGANICS BY SW8015C						
<b>MBLK</b>	Sample ID: <b>MBLK-221020</b>	Units: <b>mg/L</b>		Analysis Date: <b>20-Oct-2022 10:46</b>						
Client ID:	Run ID: <b>FID-20_419917</b>	SeqNo: <b>6934644</b>		PrepDate:		DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	U	0.0500								
Surr: 4-Bromofluorobenzene	0.1185	0.00500	0.1	0	118	70 - 121				

<b>LCS</b>	Sample ID: <b>LCS-221020</b>	Units: <b>mg/L</b>		Analysis Date: <b>20-Oct-2022 09:59</b>						
Client ID:	Run ID: <b>FID-20_419917</b>	SeqNo: <b>6934642</b>		PrepDate:		DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.063	0.0500	1	0	106	76 - 124				
Surr: 4-Bromofluorobenzene	0.106	0.00500	0.1	0	106	52 - 138				

<b>LCSD</b>	Sample ID: <b>LCSD-221020</b>	Units: <b>mg/L</b>		Analysis Date: <b>20-Oct-2022 10:15</b>						
Client ID:	Run ID: <b>FID-20_419917</b>	SeqNo: <b>6934643</b>		PrepDate:		DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.056	0.0500	1	0	106	76 - 124	1.063	0.658	20	
Surr: 4-Bromofluorobenzene	0.1062	0.00500	0.1	0	106	52 - 138	0.106	0.192	20	

The following samples were analyzed in this batch: HS22100753-01

**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**QC BATCH REPORT**

Batch ID: 185319 ( 0 )		Instrument: ICPMS07		Method: TOTAL METALS BY E200.8, REV 5.4, 1994					
<b>MBLK</b>	Sample ID: <b>MBLK-185319</b>	Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 12:02</b>					
Client ID:	Run ID: <b>ICPMS07_420382</b>	SeqNo: <b>6945637</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	U	500							
Magnesium	10.58	500							J
Potassium	U	500							
Sodium	U	200							

<b>LCS</b>	Sample ID: <b>LCS-185319</b>	Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 12:04</b>					
Client ID:	Run ID: <b>ICPMS07_420382</b>	SeqNo: <b>6945638</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	5186	500	5000	0	104	85 - 115			
Magnesium	5167	500	5000	0	103	85 - 115			
Potassium	5300	500	5000	0	106	85 - 115			
Sodium	5034	200	5000	0	101	85 - 115			

<b>MS</b>	Sample ID: <b>HS22100778-02MS</b>	Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 12:37</b>					
Client ID:	Run ID: <b>ICPMS07_420382</b>	SeqNo: <b>6945656</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	5255	500	5000	83.72	103	70 - 130			
Magnesium	5318	500	5000	22.54	106	70 - 130			
Potassium	5397	500	5000	42.17	107	70 - 130			
Sodium	5315	200	5000	258.8	101	70 - 130			

<b>MS</b>	Sample ID: <b>HS22100778-01MS</b>	Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 12:32</b>					
Client ID:	Run ID: <b>ICPMS07_420382</b>	SeqNo: <b>6945653</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	347800	500	5000	342500	105	70 - 130			EO
Magnesium	89900	500	5000	85470	88.5	70 - 130			O
Potassium	36620	500	5000	31590	100	70 - 130			O
Sodium	458600	200	5000	452700	119	70 - 130			EO

**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**QC BATCH REPORT**

Batch ID: 185319 ( 0 )		Instrument: ICPMS07		Method: TOTAL METALS BY E200.8, REV 5.4, 1994					
<b>MSD</b>		Sample ID: HS22100778-02MSD		Units: ug/L		Analysis Date: 27-Oct-2022 12:39			
Client ID:		Run ID: ICPMS07_420382		SeqNo: 6945657		PrepDate: 26-Oct-2022		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	5048	500	5000	83.72	99.3	70 - 130	5255	4.01	20
Magnesium	5091	500	5000	22.54	101	70 - 130	5318	4.36	20
Potassium	5123	500	5000	42.17	102	70 - 130	5397	5.21	20
Sodium	5113	200	5000	258.8	97.1	70 - 130	5315	3.88	20

<b>MSD</b>		Sample ID: HS22100778-01MSD		Units: ug/L		Analysis Date: 27-Oct-2022 12:34			
Client ID:		Run ID: ICPMS07_420382		SeqNo: 6945654		PrepDate: 26-Oct-2022		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	347500	500	5000	342500	98.5	70 - 130	347800	0.0904	20 EO
Magnesium	90010	500	5000	85470	90.7	70 - 130	89900	0.126	20 O
Potassium	36430	500	5000	31590	96.8	70 - 130	36620	0.499	20 O
Sodium	456400	200	5000	452700	75.7	70 - 130	458600	0.47	20 EO

The following samples were analyzed in this batch: HS22100753-01

**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**QC BATCH REPORT**

Batch ID: 185333 ( 0 )		Instrument: ICPMS06		Method: DISSOLVED METALS BY E200.8, REV 5.4, 1994 (DISSOLVED)					
<b>MBLK</b>	Sample ID: <b>MBLKF2-185333</b>	Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 14:44</b>					
Client ID:	Run ID: <b>ICPMS06_420376</b>	SeqNo: <b>6946602</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	U	500							
Magnesium	19.02	500							J
Potassium	U	500							
Sodium	93.03	200							J

<b>MBLK</b>	Sample ID: <b>MBLKF3-185333</b>	Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 14:46</b>					
Client ID:	Run ID: <b>ICPMS06_420376</b>	SeqNo: <b>6946603</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	U	500							
Magnesium	19.94	500							J
Potassium	U	500							
Sodium	84.67	200							J

<b>MBLK</b>	Sample ID: <b>MBLKF1-185333</b>	Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 14:42</b>					
Client ID:	Run ID: <b>ICPMS06_420376</b>	SeqNo: <b>6946601</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	U	500							
Magnesium	17.47	500							J
Potassium	U	500							
Sodium	93.96	200							J

<b>MBLK</b>	Sample ID: <b>MBLK-185333</b>	Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 14:40</b>					
Client ID:	Run ID: <b>ICPMS06_420376</b>	SeqNo: <b>6946600</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	U	500							
Magnesium	11.29	500							J
Potassium	U	500							
Sodium	119.9	200							J

**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**QC BATCH REPORT**

<b>Batch ID:</b> 185333 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> DISSOLVED METALS BY E200.8, REV 5.4, 1994 (DISSOLVED)
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LCS	Sample ID: LCS-185333		Units: ug/L		Analysis Date: 27-Oct-2022 14:48					
Client ID:	Run ID: ICPMS06_420376		SeqNo: 6946604		PrepDate: 26-Oct-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Calcium	5363	500	5000	0	107	85 - 115				
Magnesium	5397	500	5000	0	108	85 - 115				
Potassium	5423	500	5000	0	108	85 - 115				
Sodium	5453	200	5000	0	109	85 - 115				

MS	Sample ID: HS22100729-02MS		Units: ug/L		Analysis Date: 27-Oct-2022 15:24					
Client ID:	Run ID: ICPMS06_420376		SeqNo: 6946614		PrepDate: 26-Oct-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Calcium	130300	500	5000	135400	-102	85 - 115				SO
Magnesium	12320	500	5000	7729	91.9	85 - 115				
Potassium	9597	500	5000	4621	99.5	85 - 115				
Sodium	48540	200	5000	47040	30.0	85 - 115				SO

<b>MSD</b>	Sample ID: <b>HS22100729-02MSD</b>		Units: <b>ug/L</b>		Analysis Date: <b>27-Oct-2022 15:35</b>					
Client ID:	Run ID: <b>ICPMS06_420376</b>		SeqNo: <b>6946615</b>		PrepDate: <b>26-Oct-2022</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Calcium	108100	500	5000	135400	-546	85 - 115	130300	18.6	20	SO
Magnesium	10640	500	5000	7729	58.1	85 - 115	12320	14.7	20	S
Potassium	8391	500	5000	4621	75.4	85 - 115	9597	13.4	20	S
Sodium	40930	200	5000	47040	-122	85 - 115	48540	17	20	SO

The following samples were analyzed in this batch: HS22100753-02

Client: PDC Energy  
 Project: Wayne 01N  
 WorkOrder: HS22100753

## QC BATCH REPORT

Batch ID: R420290 ( 0 )		Instrument: VOA7		Method: LOW LEVEL VOLATILES BY SW8260C					
<b>MBLK</b>		Sample ID: VBLKW-221026	Units: ug/L		Analysis Date: 26-Oct-2022 09:44				
Client ID:		Run ID: VOA7_420290		SeqNo: 6943359		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	1.0							
Ethylbenzene	U	1.0							
m,p-Xylene	U	2.0							
o-Xylene	U	1.0							
Toluene	U	1.0							
Xylenes, Total	U	1.0							
Surr: 1,2-Dichloroethane-d4	49.7	1.0	50	0	99.4	70 - 123			
Surr: 4-Bromofluorobenzene	47.86	1.0	50	0	95.7	77 - 113			
Surr: Dibromofluoromethane	47.8	1.0	50	0	95.6	73 - 126			
Surr: Toluene-d8	49.4	1.0	50	0	98.8	81 - 120			

<b>LCS</b>		Sample ID: VLCSW-221026	Units: ug/L		Analysis Date: 26-Oct-2022 09:05				
Client ID:		Run ID: VOA7_420290		SeqNo: 6943357		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	17.4	1.0	20	0	87.0	74 - 120			
Ethylbenzene	18.31	1.0	20	0	91.5	77 - 117			
m,p-Xylene	36.13	2.0	40	0	90.3	77 - 122			
o-Xylene	18.03	1.0	20	0	90.2	75 - 119			
Toluene	19.05	1.0	20	0	95.3	77 - 118			
Xylenes, Total	54.16	1.0	60	0	90.3	75 - 122			
Surr: 1,2-Dichloroethane-d4	49.91	1.0	50	0	99.8	70 - 123			
Surr: 4-Bromofluorobenzene	49.65	1.0	50	0	99.3	77 - 113			
Surr: Dibromofluoromethane	47.46	1.0	50	0	94.9	73 - 126			
Surr: Toluene-d8	49.46	1.0	50	0	98.9	81 - 120			



Client: PDC Energy  
 Project: Wayne 01N  
 WorkOrder: HS22100753

## QC BATCH REPORT

Batch ID: R420290 ( 0 )		Instrument: VOA7		Method: LOW LEVEL VOLATILES BY SW8260C						
<b>MS</b>		Sample ID: HS22101107-14MS		Units: ug/L		Analysis Date: 26-Oct-2022 11:03				
Client ID:		Run ID: VOA7_420290		SeqNo: 6943363		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	16.28	1.0	20	0	81.4	70 - 127				
Ethylbenzene	17.63	1.0	20	0	88.1	70 - 124				
m,p-Xylene	35.38	2.0	40	0	88.5	70 - 130				
o-Xylene	17.2	1.0	20	0	86.0	70 - 124				
Toluene	18.14	1.0	20	0	90.7	70 - 123				
Xylenes, Total	52.58	1.0	60	0	87.6	70 - 130				
Surr: 1,2-Dichloroethane-d4	47.25	1.0	50	0	94.5	70 - 126				
Surr: 4-Bromofluorobenzene	49.67	1.0	50	0	99.3	77 - 113				
Surr: Dibromofluoromethane	48.55	1.0	50	0	97.1	77 - 123				
Surr: Toluene-d8	49.52	1.0	50	0	99.0	82 - 127				

<b>MSD</b>		Sample ID: HS22101107-14MSD		Units: ug/L		Analysis Date: 26-Oct-2022 11:23				
Client ID:		Run ID: VOA7_420290		SeqNo: 6943364		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	16.57	1.0	20	0	82.8	70 - 127	16.28	1.75	20	
Ethylbenzene	17.67	1.0	20	0	88.4	70 - 124	17.63	0.259	20	
m,p-Xylene	35.1	2.0	40	0	87.7	70 - 130	35.38	0.812	20	
o-Xylene	17.45	1.0	20	0	87.3	70 - 124	17.2	1.44	20	
Toluene	18.16	1.0	20	0	90.8	70 - 123	18.14	0.113	20	
Xylenes, Total	52.55	1.0	60	0	87.6	70 - 130	52.58	0.0684	20	
Surr: 1,2-Dichloroethane-d4	48.56	1.0	50	0	97.1	70 - 126	47.25	2.73	20	
Surr: 4-Bromofluorobenzene	49.86	1.0	50	0	99.7	77 - 113	49.67	0.378	20	
Surr: Dibromofluoromethane	47.28	1.0	50	0	94.6	77 - 123	48.55	2.65	20	
Surr: Toluene-d8	49.53	1.0	50	0	99.1	82 - 127	49.52	0.0296	20	

The following samples were analyzed in this batch: HS22100753-01

Client: PDC Energy  
 Project: Wayne 01N  
 WorkOrder: HS22100753

## QC BATCH REPORT

Batch ID: R419900 ( 0 )		Instrument: Balance1		Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011						
MBLK	Sample ID: WBLK-101922	Units: mg/L		Analysis Date: 19-Oct-2022 17:48						
Client ID:	Run ID: Balance1_419900	SeqNo: 6934149		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)		U	10.0							
LCS	Sample ID: WLCS-101922	Units: mg/L		Analysis Date: 19-Oct-2022 17:48						
Client ID:	Run ID: Balance1_419900	SeqNo: 6934150		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)		1056	10.0	1000	0	106	85 - 115			
DUP	Sample ID: HS22100760-07DUP	Units: mg/L		Analysis Date: 19-Oct-2022 17:48						
Client ID:	Run ID: Balance1_419900	SeqNo: 6934146		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)		1562	10.0				1558	0.256	5	
DUP	Sample ID: HS22100628-01DUP	Units: mg/L		Analysis Date: 19-Oct-2022 17:48						
Client ID:	Run ID: Balance1_419900	SeqNo: 6934130		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)		424	10.0				426	0.471	5	
The following samples were analyzed in this batch:		HS22100753-01								

**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**QC BATCH REPORT**

Batch ID: R419930 ( 0 )		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993					
<b>MBLK</b>	Sample ID: <b>MBLK</b>	Units: <b>mg/L</b>		Analysis Date: <b>20-Oct-2022 13:31</b>					
Client ID:	Run ID: <b>ICS-Integrion_419930</b>		SeqNo: <b>6934940</b>		PrepDate:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Chloride U 0.500

Sulfate U 0.500

<b>LCS</b>	Sample ID: <b>LCS</b>	Units: <b>mg/L</b>		Analysis Date: <b>20-Oct-2022 13:36</b>					
Client ID:	Run ID: <b>ICS-Integrion_419930</b>		SeqNo: <b>6934941</b>		PrepDate:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Chloride 20.77 0.500 20 0 104 90 - 110

Sulfate 20.29 0.500 20 0 101 90 - 110

<b>MS</b>	Sample ID: <b>HS22100610-04MS</b>	Units: <b>mg/L</b>		Analysis Date: <b>20-Oct-2022 14:18</b>					
Client ID:	Run ID: <b>ICS-Integrion_419930</b>		SeqNo: <b>6934947</b>		PrepDate:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Chloride 26.66 0.500 10 16.89 97.7 80 - 120

Sulfate 49.54 0.500 10 40.57 89.6 80 - 120 O

<b>MS</b>	Sample ID: <b>HS22100553-01MS</b>	Units: <b>mg/L</b>		Analysis Date: <b>20-Oct-2022 14:34</b>					
Client ID:	Run ID: <b>ICS-Integrion_419930</b>		SeqNo: <b>6934950</b>		PrepDate:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Chloride 40.15 0.500 10 30.45 97.0 80 - 120

Sulfate 34.66 0.500 10 24.85 98.1 80 - 120

<b>MSD</b>	Sample ID: <b>HS22100610-04MSD</b>	Units: <b>mg/L</b>		Analysis Date: <b>20-Oct-2022 14:23</b>					
Client ID:	Run ID: <b>ICS-Integrion_419930</b>		SeqNo: <b>6934948</b>		PrepDate:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Chloride 26.73 0.500 10 16.89 98.4 80 - 120 26.66 0.255 20

Sulfate 49.54 0.500 10 40.57 89.6 80 - 120 49.54 0 20 O

**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**QC BATCH REPORT**

Batch ID: R419930 ( 0 )		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993					
<b>MSD</b>		Sample ID: HS22100553-01MSD		Units: mg/L		Analysis Date: 20-Oct-2022 14:39			
Client ID:		Run ID: ICS-Integrion_419930		SeqNo: 6934951		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	40.04	0.500	10	30.45	96.0	80 - 120	40.15	0.254	20
Sulfate	34.39	0.500	10	24.85	95.3	80 - 120	34.66	0.796	20
The following samples were analyzed in this batch: HS22100753-01									

Client: PDC Energy  
 Project: Wayne 01N  
 WorkOrder: HS22100753

## QC BATCH REPORT

Batch ID: R420359 ( 0 )		Instrument: ManTech01		Method: ALKALINITY BY SM 2320B-2011					
<b>MBLK</b>	Sample ID: WBLKW1-102622	Units: mg/L		Analysis Date: 26-Oct-2022 21:53					
Client ID:	Run ID: ManTech01_420359	SeqNo: 6944927		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)	U	5.00							
Alkalinity, Carbonate (As CaCO3)	U	5.00							
Alkalinity, Total (As CaCO3)	U	5.00							

<b>LCS</b>	Sample ID: LCS1-102622	Units: mg/L		Analysis Date: 26-Oct-2022 22:02					
Client ID:	Run ID: ManTech01_420359	SeqNo: 6944928		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)	970.7	5.00	1000	0	97.1	85 - 115			
Alkalinity, Total (As CaCO3)	991	5.00	1000	0	99.1	85 - 115			

<b>LCSD</b>	Sample ID: LCSD1-102622	Units: mg/L		Analysis Date: 26-Oct-2022 22:11					
Client ID:	Run ID: ManTech01_420359	SeqNo: 6944929		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)	973.9	5.00	1000	0	97.4	85 - 115	970.7	0.326	20
Alkalinity, Total (As CaCO3)	993.6	5.00	1000	0	99.4	85 - 115	991	0.27	20

<b>DUP</b>	Sample ID: HS22100628-01DUP	Units: mg/L		Analysis Date: 26-Oct-2022 22:30					
Client ID:	Run ID: ManTech01_420359	SeqNo: 6944932		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)	349.6	5.00					328.2	6.31	20
Alkalinity, Carbonate (As CaCO3)	U	5.00					0	0	20
Alkalinity, Total (As CaCO3)	349.6	5.00					328.2	6.31	20

The following samples were analyzed in this batch: HS22100753-01

**Client:** PDC Energy  
**Project:** Wayne 01N  
**WorkOrder:** HS22100753

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	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

<b>Acronym</b>	<b>Description</b>
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

<b>Unit Reported</b>	<b>Description</b>
Date	
mg/L	Milligrams per Liter

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**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

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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	624-2022	31-Dec-2022
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: HS22100753

Date/Time Received: 14-Oct-2022 08:50

Client Name: PDC Energy 80620

Received by: Paresh M. Giga

Completed By: /S/ Corey Grandits	14-Oct-2022 16:24	Reviewed by: /S/ Tyler Monroe	14-Oct-2022 16:32
eSignature	Date/Time	eSignature	Date/Time

Matrices: WCarrier name: FedEx

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

Temperature(s)/Thermometer(s):

2.7uc/2.5c IR31

Cooler(s)/Kit(s):

Blue

Date/Time sample(s) sent to storage:

10/14/2022

Water - VOA vials have zero headspace?

Yes ☒ No ☐ No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒ No ☐ N/A ☐

pH adjusted?

Yes ☐ No ☒ N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:





## Chain of Custody Form

Page \_\_\_\_ of \_\_\_\_

HS22100753

PDC Energy  
Wayne 01Nntal  
fice  
10  
99  
22

Parameter/Method Request for Analysis

ALS Project Manager:

Customer Information			Project Information			Parameter/Method Request for Analysis												
Purchase Order		Project Name	Wayne 01N		A	Dissolved Gases (Methane, Ethane, Propane)												
Work Order		Project Number			B	BTEX 8260												
Company Name	PDC Energy	Bill To Company	PDC Energy		C	DRO 8015												
Send Report To	Max Trehus	Invoice Attn.	Max Trehus		D	GRO 8015												
Address	4000 Burlington Ave	Address	1775 Sherman St #3000		E	Anions (Cl, SO <sub>4</sub> ), Alk (T, CO <sub>3</sub> , HCO <sub>3</sub> ), TDS												
City/State/Zip	Evans, CO 80620	City/State/Zip	Denver, CO 80203		F	Dissolved Ca, Mg, K, Na - need to lab filter												
Phone	720-762-3569	Phone	303-860-5800		G	Total Ca, Mg, K, Na												
Fax		Fax			H													
e-Mail Address	max.trehus@pdce.com jenifer.hakkarinen@pdce.com jessica.johannsen@pdce.com	e-Mail Address			I													
					J													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
1	W-01N A	10/12/22	16:00	W	8	3	X											
2	W-01N A			W	1	3		X										
3	W-01N A			W	1	3			X									
4	W-01N A			W	1	3				X								
5	W-01N A			W	8	1				X								
6	W-01N B			W	8	1					X							
7	W-01N A			W	2	1						X						
8													X					
9																		
10																		

Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:		Results Due Date:	
Max Trehus				<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Notes:			
	10/13/22	12:02		Facility ID: 453220			
Relinquished by:	Date:	Time:	Received by (Laboratory):	QC Package: (Check Box Below)			
	10/13/22	1530		<input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> TRRP-Checklist			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	<input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> TRRP Level IV			
				<input type="checkbox"/> Level IV: SW846 CLP-Like			
Preservative Key: 1-HCL 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4 degrees C 9-5035				Other: _____			

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

*Bme* OCT 14 2022

ORIGIN ID:FTCA (970) 490-1511  
SAMPLE CONTROL  
ALS HOUSTON  
225 COMMERCE DRIVE

FORT COLLINS, CO 80524  
UNITED STATES US

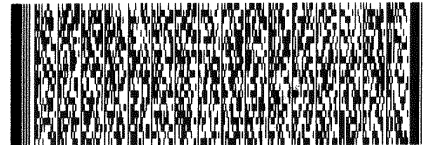
SHIP DATE: 13OCT22  
ACTWGT: 19.15 LB  
CAD: 0790254/CAFE3616  
DIMS: 15x12x10 IN

BILL THIRD PARTY

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

(281) 630-6666

REF: 6710-ENV-FC-LB-00



**FedEx**  
Express



TRK# 5066 7517 6493  
0201

**FRI - 14 OCT 10:30A**  
**PRIORITY OVERNIGHT**

**XA SGRA**

**77099**  
**TX-US IAH**

Part # 167077-434 NTW EXP 0622

