05-Apr-2024

Aaron Galer
Williams Midstream
2717 County Road 215
Parachute, CO 81635

Re: **Cottonwood CS** Work Order: **24031982**

Dear Aaron,

ALS Environmental received 8 samples on 28-Mar-2024 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 26.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

ALS Group, USA

Date: 05-Apr-24

Client: Williams Midstream
Project: Cottonwood CS
Work Order: **24031982**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24031982-01	MW-1	Water		3/26/2024 12:30	3/28/2024 09:00	☐
24031982-02	MW-2	Water		3/26/2024 12:00	3/28/2024 09:00	☐
24031982-03	MW-3	Water		3/26/2024 11:45	3/28/2024 09:00	☐
24031982-04	MW-4	Water		3/26/2024 12:45	3/28/2024 09:00	☐
24031982-05	MW-6	Water		3/26/2024 13:00	3/28/2024 09:00	☐
24031982-06	MW-7	Water		3/26/2024 13:15	3/28/2024 09:00	☐
24031982-07	DUP	Water		3/26/2024	3/28/2024 09:00	☐
24031982-08	Trip Blank	Water		3/26/2024	3/28/2024 09:00	☐

Client: Williams Midstream
Project: Cottonwood CS
Work Order: 24031982

Case Narrative

The attached "Sample Receipt Checklist" documents the date of receipt, status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. A copy of the laboratory's scope of accreditation is available upon request.

Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

Any flags on MS/MSD samples not addressed in this narrative are unrelated to samples in this report.

With the following exceptions, all sample analyses achieved analytical criteria.

Batch R399618a, Method SW8260D, Sample MW-6 (24031982-05A): The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.

Client: Williams Midstream
Project: Cottonwood CS
WorkOrder: **24031982**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Analyte accreditation is not offered
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
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group, USA

Date: *05-Apr-2024*

Client: Williams Midstream
Project: Cottonwood CS
Work Order: 24031982
Sample ID: MW-1
Lab ID: 24031982-01
Collection Date: 3/26/2024 12:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260D**			Analyst: **EZH**
1,2,4-Trimethylbenzene	**350**		**25**	**µg/L**	25	3/29/2024 06:52 PM
1,3,5-Trimethylbenzene	**370**		**25**	**µg/L**	25	3/29/2024 06:52 PM
Benzene	**1,900**		**25**	**µg/L**	25	3/29/2024 06:52 PM
Ethylbenzene	**470**		**25**	**µg/L**	25	3/29/2024 06:52 PM
m,p-Xylene	**6,300**		**100**	**µg/L**	50	4/1/2024 10:36 PM
Naphthalene	ND		120	µg/L	25	3/29/2024 06:52 PM
o-Xylene	**790**		**25**	**µg/L**	25	3/29/2024 06:52 PM
Toluene	**56**		**25**	**µg/L**	25	3/29/2024 06:52 PM
Xylenes, Total	**7,100**		**150**	**µg/L**	50	4/1/2024 10:36 PM
Surr: 1,2-Dichloroethane-d4	*93.1*		*80-120*	*%REC*	50	4/1/2024 10:36 PM
Surr: 1,2-Dichloroethane-d4	*89.3*		*80-120*	*%REC*	25	3/29/2024 06:52 PM
Surr: 4-Bromofluorobenzene	*95.4*		*80-120*	*%REC*	25	3/29/2024 06:52 PM
Surr: 4-Bromofluorobenzene	*101*		*80-120*	*%REC*	50	4/1/2024 10:36 PM
Surr: Dibromofluoromethane	*90.2*		*80-120*	*%REC*	25	3/29/2024 06:52 PM
Surr: Dibromofluoromethane	*89.6*		*80-120*	*%REC*	50	4/1/2024 10:36 PM
Surr: Toluene-d8	*104*		*80-120*	*%REC*	25	3/29/2024 06:52 PM
Surr: Toluene-d8	*103*		*80-120*	*%REC*	50	4/1/2024 10:36 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056A**			Analyst: **QTN**
Chloride	**34.9**		**4.0**	**mg/L**	4	3/31/2024 01:41 PM
Sulfate	ND		1.0	mg/L	1	4/4/2024 01:07 AM
TOTAL DISSOLVED SOLIDS			**A2540 C-15**		Prep: FILTER 3/29/24 15:41	Analyst: **LAD**
Total Dissolved Solids	**850**		**50**	**mg/L**	1	4/2/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream
Project: Cottonwood CS **Work Order:** 24031982
Sample ID: MW-2 **Lab ID:** 24031982-02
Collection Date: 3/26/2024 12:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260D**			Analyst: **EZH**
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	3/29/2024 06:29 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	3/29/2024 06:29 PM
Benzene	**1.8**		**1.0**	**µg/L**	1	3/29/2024 06:29 PM
Ethylbenzene	ND		1.0	µg/L	1	3/29/2024 06:29 PM
m,p-Xylene	ND		2.0	µg/L	1	3/29/2024 06:29 PM
Naphthalene	ND		5.0	µg/L	1	3/29/2024 06:29 PM
o-Xylene	ND		1.0	µg/L	1	3/29/2024 06:29 PM
Toluene	ND		1.0	µg/L	1	3/29/2024 06:29 PM
Xylenes, Total	ND		3.0	µg/L	1	3/29/2024 06:29 PM
Surr: 1,2-Dichloroethane-d4	*103*		*80-120*	*%REC*	1	3/29/2024 06:29 PM
Surr: 4-Bromofluorobenzene	*100*		*80-120*	*%REC*	1	3/29/2024 06:29 PM
Surr: Dibromofluoromethane	*94.2*		*80-120*	*%REC*	1	3/29/2024 06:29 PM
Surr: Toluene-d8	*101*		*80-120*	*%REC*	1	3/29/2024 06:29 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056A**			Analyst: **QTN**
Chloride	**39.9**		**10**	**mg/L**	10	3/31/2024 01:51 PM
Sulfate	**348**		**100**	**mg/L**	100	3/30/2024 04:39 PM
TOTAL DISSOLVED SOLIDS			**A2540 C-15**		Prep: FILTER 3/29/24 15:41	Analyst: **LAD**
Total Dissolved Solids	**930**		**50**	**mg/L**	1	4/2/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream
Project: Cottonwood CS **Work Order:** 24031982
Sample ID: MW-3 **Lab ID:** 24031982-03
Collection Date: 3/26/2024 11:45 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260D**			Analyst: **JGV**
1,2,4-Trimethylbenzene	**2.8**		**1.0**	**µg/L**	1	3/28/2024 06:46 PM
1,3,5-Trimethylbenzene	**30**		**1.0**	**µg/L**	1	3/28/2024 06:46 PM
Benzene	**80**		**1.0**	**µg/L**	1	3/28/2024 06:46 PM
Ethylbenzene	**4.3**		**1.0**	**µg/L**	1	3/28/2024 06:46 PM
m,p-Xylene	**20**		**2.0**	**µg/L**	1	3/28/2024 06:46 PM
Naphthalene	ND		5.0	µg/L	1	3/28/2024 06:46 PM
o-Xylene	**2.2**		**1.0**	**µg/L**	1	3/28/2024 06:46 PM
Toluene	ND		1.0	µg/L	1	3/28/2024 06:46 PM
Xylenes, Total	**22**		**3.0**	**µg/L**	1	3/28/2024 06:46 PM
Surr: 1,2-Dichloroethane-d4	*101*		*80-120*	*%REC*	1	3/28/2024 06:46 PM
Surr: 4-Bromofluorobenzene	*101*		*80-120*	*%REC*	1	3/28/2024 06:46 PM
Surr: Dibromofluoromethane	*104*		*80-120*	*%REC*	1	3/28/2024 06:46 PM
Surr: Toluene-d8	*100*		*80-120*	*%REC*	1	3/28/2024 06:46 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056A**			Analyst: **QTN**
Chloride	**39.9**		**10**	**mg/L**	10	3/31/2024 02:00 PM
Sulfate	**294**		**100**	**mg/L**	100	3/30/2024 04:49 PM
TOTAL DISSOLVED SOLIDS			**A2540 C-15**		Prep: FILTER 3/29/24 15:41	Analyst: **LAD**
Total Dissolved Solids	**910**		**100**	**mg/L**	1	4/2/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream
Project: Cottonwood CS **Work Order:** 24031982
Sample ID: MW-4 **Lab ID:** 24031982-04
Collection Date: 3/26/2024 12:45 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260D**			Analyst: **EZH**
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	3/29/2024 07:14 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	3/29/2024 07:14 PM
Benzene	ND		1.0	µg/L	1	3/29/2024 07:14 PM
Ethylbenzene	ND		1.0	µg/L	1	3/29/2024 07:14 PM
m,p-Xylene	ND		2.0	µg/L	1	3/29/2024 07:14 PM
Naphthalene	ND		5.0	µg/L	1	3/29/2024 07:14 PM
o-Xylene	ND		1.0	µg/L	1	3/29/2024 07:14 PM
Toluene	ND		1.0	µg/L	1	3/29/2024 07:14 PM
Xylenes, Total	ND		3.0	µg/L	1	3/29/2024 07:14 PM
Surr: 1,2-Dichloroethane-d4	*85.8*		*80-120*	*%REC*	1	3/29/2024 07:14 PM
Surr: 4-Bromofluorobenzene	*98.8*		*80-120*	*%REC*	1	3/29/2024 07:14 PM
Surr: Dibromofluoromethane	*89.6*		*80-120*	*%REC*	1	3/29/2024 07:14 PM
Surr: Toluene-d8	*100*		*80-120*	*%REC*	1	3/29/2024 07:14 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056A**			Analyst: **QTN**
Chloride	**40.8**		**10**	**mg/L**	10	3/31/2024 02:10 PM
Sulfate	**281**		**100**	**mg/L**	100	3/30/2024 04:59 PM
TOTAL DISSOLVED SOLIDS			**A2540 C-15**		Prep: FILTER 3/29/24 15:41	Analyst: **LAD**
Total Dissolved Solids	**990**		**100**	**mg/L**	1	4/2/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream
Project: Cottonwood CS **Work Order:** 24031982
Sample ID: MW-6 **Lab ID:** 24031982-05
Collection Date: 3/26/2024 01:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260D**			Analyst: **EZH**
1,2,4-Trimethylbenzene	ND		5.0	µg/L	5	4/1/2024 10:14 PM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	5	4/1/2024 10:14 PM
Benzene	ND		5.0	µg/L	5	4/1/2024 10:14 PM
Ethylbenzene	ND		5.0	µg/L	5	4/1/2024 10:14 PM
m,p-Xylene	ND		10	µg/L	5	4/1/2024 10:14 PM
Naphthalene	ND		25	µg/L	5	4/1/2024 10:14 PM
o-Xylene	ND		5.0	µg/L	5	4/1/2024 10:14 PM
Toluene	ND		5.0	µg/L	5	4/1/2024 10:14 PM
Xylenes, Total	ND		15	µg/L	5	4/1/2024 10:14 PM
Surr: 1,2-Dichloroethane-d4	*100*		*80-120*	*%REC*	5	4/1/2024 10:14 PM
Surr: 4-Bromofluorobenzene	*99.7*		*80-120*	*%REC*	5	4/1/2024 10:14 PM
Surr: Dibromofluoromethane	*97.4*		*80-120*	*%REC*	5	4/1/2024 10:14 PM
Surr: Toluene-d8	*96.8*		*80-120*	*%REC*	5	4/1/2024 10:14 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056A**			Analyst: **QTN**
Chloride	**53.2**		**10**	**mg/L**	10	3/31/2024 02:20 PM
Sulfate	**849**		**100**	**mg/L**	100	3/30/2024 05:08 PM
TOTAL DISSOLVED SOLIDS			**A2540 C-15**		Prep: FILTER 3/29/24 15:41	Analyst: **LAD**
Total Dissolved Solids	**1,400**		**100**	**mg/L**	1	4/2/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream
Project: Cottonwood CS **Work Order:** 24031982
Sample ID: MW-7 **Lab ID:** 24031982-06
Collection Date: 3/26/2024 01:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260D**			Analyst: **BAM**
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	3/28/2024 06:15 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	3/28/2024 06:15 PM
Benzene	ND		1.0	µg/L	1	3/28/2024 06:15 PM
Ethylbenzene	ND		1.0	µg/L	1	3/28/2024 06:15 PM
m,p-Xylene	ND		2.0	µg/L	1	3/28/2024 06:15 PM
Naphthalene	ND		5.0	µg/L	1	3/28/2024 06:15 PM
o-Xylene	ND		1.0	µg/L	1	3/28/2024 06:15 PM
Toluene	ND		1.0	µg/L	1	3/28/2024 06:15 PM
Xylenes, Total	ND		3.0	µg/L	1	3/28/2024 06:15 PM
Surr: 1,2-Dichloroethane-d4	*99.6*		*80-120*	*%REC*	1	3/28/2024 06:15 PM
Surr: 4-Bromofluorobenzene	*100*		*80-120*	*%REC*	1	3/28/2024 06:15 PM
Surr: Dibromofluoromethane	*97.0*		*80-120*	*%REC*	1	3/28/2024 06:15 PM
Surr: Toluene-d8	*103*		*80-120*	*%REC*	1	3/28/2024 06:15 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056A**			Analyst: **QTN**
Chloride	**38.5**		**10**	**mg/L**	10	3/31/2024 02:30 PM
Sulfate	**534**		**100**	**mg/L**	100	3/30/2024 05:18 PM
TOTAL DISSOLVED SOLIDS			**A2540 C-15**		Prep: FILTER 3/29/24 15:41	Analyst: **LAD**
Total Dissolved Solids	**1,000**		**100**	**mg/L**	1	4/2/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream
Project: Cottonwood CS **Work Order:** 24031982
Sample ID: DUP **Lab ID:** 24031982-07
Collection Date: 3/26/2024 **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260D**			Analyst: **BAM**
1,2,4-Trimethylbenzene	**1.6**		**1.0**	**µg/L**	1	3/28/2024 06:32 PM
1,3,5-Trimethylbenzene	**22**		**1.0**	**µg/L**	1	3/28/2024 06:32 PM
Benzene	**62**		**1.0**	**µg/L**	1	3/28/2024 06:32 PM
Ethylbenzene	**2.9**		**1.0**	**µg/L**	1	3/28/2024 06:32 PM
m,p-Xylene	**8.5**		**2.0**	**µg/L**	1	3/28/2024 06:32 PM
Naphthalene	ND		5.0	µg/L	1	3/28/2024 06:32 PM
o-Xylene	**1.0**		**1.0**	**µg/L**	1	3/28/2024 06:32 PM
Toluene	ND		1.0	µg/L	1	3/28/2024 06:32 PM
Xylenes, Total	**9.5**		**3.0**	**µg/L**	1	3/28/2024 06:32 PM
Surr: 1,2-Dichloroethane-d4	*97.1*		*80-120*	*%REC*	1	3/28/2024 06:32 PM
Surr: 4-Bromofluorobenzene	*102*		*80-120*	*%REC*	1	3/28/2024 06:32 PM
Surr: Dibromofluoromethane	*98.8*		*80-120*	*%REC*	1	3/28/2024 06:32 PM
Surr: Toluene-d8	*103*		*80-120*	*%REC*	1	3/28/2024 06:32 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056A**			Analyst: **QTN**
Chloride	**39.1**		**10**	**mg/L**	10	3/31/2024 02:59 PM
Sulfate	**356**		**100**	**mg/L**	100	3/30/2024 05:28 PM
TOTAL DISSOLVED SOLIDS			**A2540 C-15**		Prep: FILTER 3/29/24 15:41	Analyst: **LAD**
Total Dissolved Solids	**990**		**100**	**mg/L**	1	4/2/2024 09:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream
Project: Cottonwood CS **Work Order:** 24031982
Sample ID: Trip Blank **Lab ID:** 24031982-08
Collection Date: 3/26/2024 **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260D**			Analyst: **JGV**
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	3/28/2024 05:18 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	3/28/2024 05:18 PM
Benzene	ND		1.0	µg/L	1	3/28/2024 05:18 PM
Ethylbenzene	ND		1.0	µg/L	1	3/28/2024 05:18 PM
m,p-Xylene	ND		2.0	µg/L	1	3/28/2024 05:18 PM
Naphthalene	ND		5.0	µg/L	1	3/28/2024 05:18 PM
o-Xylene	ND		1.0	µg/L	1	3/28/2024 05:18 PM
Toluene	ND		1.0	µg/L	1	3/28/2024 05:18 PM
Xylenes, Total	ND		3.0	µg/L	1	3/28/2024 05:18 PM
Surr: 1,2-Dichloroethane-d4	*97.8*		*80-120*	*%REC*	1	3/28/2024 05:18 PM
Surr: 4-Bromofluorobenzene	*102*		*80-120*	*%REC*	1	3/28/2024 05:18 PM
Surr: Dibromofluoromethane	*98.6*		*80-120*	*%REC*	1	3/28/2024 05:18 PM
Surr: Toluene-d8	*98.4*		*80-120*	*%REC*	1	3/28/2024 05:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Apr-24

Client: Williams Midstream

Work Order: 24031982

Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399392d** Instrument ID **VMS10** Method: **SW8260D**

MBLK Sample ID: **10V-BLKW1-240328-R399392d** Units: **µg/L** Analysis Date: **3/28/2024 12:06 PM**

Client ID: Run ID: **VMS10_240328A** SeqNo: **10607384** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Naphthalene	ND	5.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*19.2*	0	*20*	0	*96*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*20.01*	0	*20*	0	*100*	*80-120*	0			
Surr: Dibromofluoromethane	*19.29*	0	*20*	0	*96.4*	*80-120*	0			
Surr: Toluene-d8	*20.34*	0	*20*	0	*102*	*80-120*	0			

LCS Sample ID: **10V-LCSW1-240328-R399392d** Units: **µg/L** Analysis Date: **3/28/2024 11:13 AM**

Client ID: Run ID: **VMS10_240328A** SeqNo: **10607382** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	19.44	1.0	20	0	97.2	74-118	0			
1,3,5-Trimethylbenzene	19.68	1.0	20	0	98.4	76-120	0			
Benzene	18.91	1.0	20	0	94.6	78-120	0			
Ethylbenzene	19.54	1.0	20	0	97.7	76-116	0			
m,p-Xylene	39.34	2.0	40	0	98.4	76-119	0			
Naphthalene	14.66	5.0	20	0	73.3	56-142	0			
o-Xylene	19.49	1.0	20	0	97.4	77-116	0			
Toluene	19.1	1.0	20	0	95.5	78-116	0			
Xylenes, Total	58.83	3.0	60	0	98	77-119	0			
Surr: 1,2-Dichloroethane-d4	*19.81*	0	*20*	0	*99*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*21.65*	0	*20*	0	*108*	*80-120*	0			
Surr: Dibromofluoromethane	*21.06*	0	*20*	0	*105*	*80-120*	0			
Surr: Toluene-d8	*22.23*	0	*20*	0	*111*	*80-120*	0			

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399392d** Instrument ID **VMS10** Method: **SW8260D**

MS Sample ID: **24031937-11A MS** Units: **µg/L** Analysis Date: **3/28/2024 07:44 PM**

Client ID: Run ID: **VMS10_240328A** SeqNo: **10607409** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	19.98	1.0	20	0	99.9	74-118	0			
1,3,5-Trimethylbenzene	21.23	1.0	20	0	106	76-120	0			
Benzene	22.08	1.0	20	0	110	78-120	0			
Ethylbenzene	21.28	1.0	20	0	106	76-116	0			
m,p-Xylene	42.46	2.0	40	0	106	76-119	0			
Naphthalene	14.45	5.0	20	0	72.2	56-142	0			
o-Xylene	21.17	1.0	20	0	106	77-116	0			
Toluene	20.62	1.0	20	0	103	78-116	0			
Xylenes, Total	63.63	3.0	60	0	106	77-119	0			
Surr: 1,2-Dichloroethane-d4	*20.05*	0	*20*	0	*100*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*20.84*	0	*20*	0	*104*	*80-120*	0			
Surr: Dibromofluoromethane	*21*	0	*20*	0	*105*	*80-120*	0			
Surr: Toluene-d8	*20.95*	0	*20*	0	*105*	*80-120*	0			

DUP Sample ID: **24031937-10A DUP** Units: **µg/L** Analysis Date: **3/28/2024 07:26 PM**

Client ID: Run ID: **VMS10_240328A** SeqNo: **10607408** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0	0	0	0		0	0	30	
1,3,5-Trimethylbenzene	ND	1.0	0	0	0		0	0	30	
Benzene	ND	1.0	0	0	0		0	0	30	
Ethylbenzene	ND	1.0	0	0	0		0	0	30	
m,p-Xylene	ND	2.0	0	0	0		0	0	30	
Naphthalene	ND	5.0	0	0	0		0	0	30	
o-Xylene	ND	1.0	0	0	0		0	0	30	
Toluene	ND	1.0	0	0	0		0	0	30	
Xylenes, Total	ND	3.0	0	0	0		0	0	30	
Surr: 1,2-Dichloroethane-d4	*19.85*	0	*20*	0	*99.2*	*80-120*	19.91	*0.302*	*30*	
Surr: 4-Bromofluorobenzene	*19.85*	0	*20*	0	*99.2*	*80-120*	20.28	*2.14*	*30*	
Surr: Dibromofluoromethane	*18.79*	0	*20*	0	*94*	*80-120*	19.48	*3.61*	*30*	
Surr: Toluene-d8	*20.97*	0	*20*	0	*105*	*80-120*	20.91	*0.287*	*30*	

The following samples were analyzed in this batch: 24031982-06A 24031982-07A

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399406a** Instrument ID **VMS7** Method: **SW8260D**

MBLK Sample ID: **7VBLKW1-240328-R399406a** Units: **µg/L** Analysis Date: **3/28/2024 01:32 PM**
Client ID: Run ID: **VMS7_240328A** SeqNo: **10607884** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Naphthalene	ND	5.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*20.12*	0	*20*	0	*101*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*19.19*	0	*20*	0	*96*	*80-120*	0			
Surr: Dibromofluoromethane	*20.63*	0	*20*	0	*103*	*80-120*	0			
Surr: Toluene-d8	*20.15*	0	*20*	0	*101*	*80-120*	0			

LCS Sample ID: **7V-LCSW1-240328-R399406a** Units: **µg/L** Analysis Date: **3/28/2024 12:57 PM**
Client ID: Run ID: **VMS7_240328A** SeqNo: **10607875** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	21.59	1.0	20	0	108	74-118	0			
1,3,5-Trimethylbenzene	22.58	1.0	20	0	113	76-120	0			
Benzene	21	1.0	20	0	105	78-120	0			
Ethylbenzene	21.86	1.0	20	0	109	76-116	0			
m,p-Xylene	43.83	2.0	40	0	110	76-119	0			
Naphthalene	22.95	5.0	20	0	115	56-142	0			
o-Xylene	21.21	1.0	20	0	106	77-116	0			
Toluene	21.12	1.0	20	0	106	78-116	0			
Xylenes, Total	65.04	3.0	60	0	108	77-119	0			
Surr: 1,2-Dichloroethane-d4	*19.27*	0	*20*	0	*96.4*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*19.8*	0	*20*	0	*99*	*80-120*	0			
Surr: Dibromofluoromethane	*19.28*	0	*20*	0	*96.4*	*80-120*	0			
Surr: Toluene-d8	*19.64*	0	*20*	0	*98.2*	*80-120*	0			

The following samples were analyzed in this batch:

24031982-01A	24031982-02A	24031982-03A
24031982-05A	24031982-08A	

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399510a** Instrument ID **VMS11** Method: **SW8260D**

MBLK Sample ID: **11V-BLKW1-240329-R399510a** Units: **µg/L** Analysis Date: **3/29/2024 03:06 PM**
Client ID: Run ID: **VMS11_240329A** SeqNo: **10612465** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Naphthalene	ND	5.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*19.24*	0	*20*	0	*96.2*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*19.7*	0	*20*	0	*98.5*	*80-120*	0			
Surr: Dibromofluoromethane	*19.33*	0	*20*	0	*96.6*	*80-120*	0			
Surr: Toluene-d8	*19.6*	0	*20*	0	*98*	*80-120*	0			

LCS Sample ID: **11V-LCSW1-240329-R399510a** Units: **µg/L** Analysis Date: **3/29/2024 01:59 PM**
Client ID: Run ID: **VMS11_240329A** SeqNo: **10612463** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	17	1.0	20	0	85	74-118	0			
1,3,5-Trimethylbenzene	18.43	1.0	20	0	92.2	76-120	0			
Benzene	19.65	1.0	20	0	98.2	78-120	0			
Ethylbenzene	17.01	1.0	20	0	85	76-116	0			
m,p-Xylene	33.6	2.0	40	0	84	76-119	0			
Naphthalene	16.08	5.0	20	0	80.4	56-142	0			
o-Xylene	17.37	1.0	20	0	86.8	77-116	0			
Toluene	17.14	1.0	20	0	85.7	78-116	0			
Xylenes, Total	50.97	3.0	60	0	85	77-119	0			
Surr: 1,2-Dichloroethane-d4	*18.96*	0	*20*	0	*94.8*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*19.67*	0	*20*	0	*98.4*	*80-120*	0			
Surr: Dibromofluoromethane	*19.94*	0	*20*	0	*99.7*	*80-120*	0			
Surr: Toluene-d8	*20.39*	0	*20*	0	*102*	*80-120*	0			

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399510a** Instrument ID **VMS11** Method: **SW8260D**

MS Sample ID: **24031902-02C MS** Units: **µg/L** Analysis Date: **3/29/2024 11:23 PM**

Client ID: Run ID: **VMS11_240329A** SeqNo: **10613724** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	18.23	1.0	20	0.93	86.5	74-118	0			
1,3,5-Trimethylbenzene	19.08	1.0	20	0	95.4	76-120	0			
Benzene	20.76	1.0	20	0	104	78-120	0			
Ethylbenzene	19.53	1.0	20	0.42	95.6	76-116	0			
m,p-Xylene	37.39	2.0	40	1.3	90.2	76-119	0			
Naphthalene	18.38	5.0	20	1.86	82.6	56-142	0			
o-Xylene	18.74	1.0	20	0	93.7	77-116	0			
Toluene	19.42	1.0	20	0	97.1	78-116	0			
Xylenes, Total	56.13	3.0	60	1.3	91.4	77-119	0			
Surr: 1,2-Dichloroethane-d4	*15.79*	0	*20*	0	*79*	*80-120*	0			*S*
Surr: 4-Bromofluorobenzene	*19.15*	0	*20*	0	*95.8*	*80-120*	0			
Surr: Dibromofluoromethane	*17.67*	0	*20*	0	*88.4*	*80-120*	0			
Surr: Toluene-d8	*20.54*	0	*20*	0	*103*	*80-120*	0			

MSD Sample ID: **24031902-02C MSD** Units: **µg/L** Analysis Date: **3/29/2024 11:46 PM**

Client ID: Run ID: **VMS11_240329A** SeqNo: **10612488** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	17.83	1.0	20	0.93	84.5	74-118	18.23	2.22	30	
1,3,5-Trimethylbenzene	18.71	1.0	20	0	93.6	76-120	19.08	1.96	30	
Benzene	20.67	1.0	20	0	103	78-120	20.76	0.434	30	
Ethylbenzene	18.72	1.0	20	0.42	91.5	76-116	19.53	4.24	30	
m,p-Xylene	37.06	2.0	40	1.3	89.4	76-119	37.39	0.887	30	
Naphthalene	16.6	5.0	20	1.86	73.7	56-142	18.38	10.2	30	
o-Xylene	18.96	1.0	20	0	94.8	77-116	18.74	1.17	30	
Toluene	18.55	1.0	20	0	92.8	78-116	19.42	4.58	30	
Xylenes, Total	56.02	3.0	60	1.3	91.2	77-119	56.13	0.196	30	
Surr: 1,2-Dichloroethane-d4	*18.31*	0	*20*	0	*91.6*	*80-120*	15.79	*14.8*	*30*	
Surr: 4-Bromofluorobenzene	*19.49*	0	*20*	0	*97.4*	*80-120*	19.15	*1.76*	*30*	
Surr: Dibromofluoromethane	*18.95*	0	*20*	0	*94.8*	*80-120*	17.67	*6.99*	*30*	
Surr: Toluene-d8	*19.69*	0	*20*	0	*98.4*	*80-120*	20.54	*4.23*	*30*	

The following samples were analyzed in this batch:

24031982-01A 24031982-02A 24031982-04A
24031982-05A

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399618a** Instrument ID **VMS11** Method: **SW8260D**

MBLK Sample ID: **11V-BLKW1-240401-R399618a** Units: **µg/L** Analysis Date: **4/1/2024 02:42 PM**
Client ID: Run ID: **VMS11_240401A** SeqNo: **10616792** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Naphthalene	ND	5.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*19.99*	0	*20*	0	*100*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*19.83*	0	*20*	0	*99.2*	*80-120*	0			
Surr: Dibromofluoromethane	*19.26*	0	*20*	0	*96.3*	*80-120*	0			
Surr: Toluene-d8	*19.84*	0	*20*	0	*99.2*	*80-120*	0			

LCS Sample ID: **11V-LCSW1-240401-R399618a** Units: **µg/L** Analysis Date: **4/1/2024 01:35 PM**
Client ID: Run ID: **VMS11_240401A** SeqNo: **10616790** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	17.54	1.0	20	0	87.7	74-118	0			
1,3,5-Trimethylbenzene	18.18	1.0	20	0	90.9	76-120	0			
Benzene	19.42	1.0	20	0	97.1	78-120	0			
Ethylbenzene	17.24	1.0	20	0	86.2	76-116	0			
m,p-Xylene	34.54	2.0	40	0	86.4	76-119	0			
Naphthalene	17.2	5.0	20	0	86	56-142	0			
o-Xylene	17.53	1.0	20	0	87.6	77-116	0			
Toluene	17	1.0	20	0	85	78-116	0			
Xylenes, Total	52.07	3.0	60	0	86.8	77-119	0			
Surr: 1,2-Dichloroethane-d4	*19.49*	0	*20*	0	*97.4*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*19.65*	0	*20*	0	*98.2*	*80-120*	0			
Surr: Dibromofluoromethane	*20.36*	0	*20*	0	*102*	*80-120*	0			
Surr: Toluene-d8	*19.98*	0	*20*	0	*99.9*	*80-120*	0			

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399618a** Instrument ID **VMS11** Method: **SW8260D**

MS	Sample ID: **24031904-02B MS**				Units: **µg/L**			Analysis Date: **4/1/2024 10:59 PM**		
Client ID:	Run ID: **VMS11_240401A**				SeqNo: **10616814**		Prep Date:		DF: **50**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	870.5	50	1000	0	87	74-118	0			
1,3,5-Trimethylbenzene	930	50	1000	0	93	76-120	0			
Benzene	996	50	1000	0	99.6	78-120	0			
Ethylbenzene	926	50	1000	0	92.6	76-116	0			
m,p-Xylene	1800	100	2000	0	90	76-119	0			
Naphthalene	790.5	250	1000	0	79	56-142	0			
o-Xylene	925	50	1000	0	92.5	77-116	0			
Toluene	893.5	50	1000	0	89.4	78-116	0			
Xylenes, Total	2726	150	3000	0	90.8	77-119	0			
Surr: 1,2-Dichloroethane-d4	*945.5*	0	*1000*	0	*94.6*	*80-120*	0			
Surr: 4-Bromofluorobenzene	*1010*	0	*1000*	0	*101*	*80-120*	0			
Surr: Dibromofluoromethane	*972.5*	0	*1000*	0	*97.2*	*80-120*	0			
Surr: Toluene-d8	*1032*	0	*1000*	0	*103*	*80-120*	0			

MSD	Sample ID: **24031904-02B MSD**				Units: **µg/L**			Analysis Date: **4/1/2024 11:21 PM**		
Client ID:	Run ID: **VMS11_240401A**				SeqNo: **10616815**		Prep Date:		DF: **50**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	835.5	50	1000	0	83.6	74-118	870.5	4.1	30	
1,3,5-Trimethylbenzene	886.5	50	1000	0	88.6	76-120	930	4.79	30	
Benzene	997	50	1000	0	99.7	78-120	996	0.1	30	
Ethylbenzene	862	50	1000	0	86.2	76-116	926	7.16	30	
m,p-Xylene	1710	100	2000	0	85.5	76-119	1800	5.16	30	
Naphthalene	760.5	250	1000	0	76	56-142	790.5	3.87	30	
o-Xylene	865	50	1000	0	86.5	77-116	925	6.7	30	
Toluene	862.5	50	1000	0	86.2	78-116	893.5	3.53	30	
Xylenes, Total	2575	150	3000	0	85.8	77-119	2726	5.68	30	
Surr: 1,2-Dichloroethane-d4	*974*	0	*1000*	0	*97.4*	*80-120*	945.5	*2.97*	*30*	
Surr: 4-Bromofluorobenzene	*990*	0	*1000*	0	*99*	*80-120*	1010	*2*	*30*	
Surr: Dibromofluoromethane	*952*	0	*1000*	0	*95.2*	*80-120*	972.5	*2.13*	*30*	
Surr: Toluene-d8	*970.5*	0	*1000*	0	*97*	*80-120*	1032	*6.09*	*30*	

The following samples were analyzed in this batch: 24031982-01A 24031982-05A

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **237552** Instrument ID **TDS** Method: **A2540 C-15**

MBLK	Sample ID: **MBLK-237552-237552**				Units: **mg/L**			Analysis Date: **4/2/2024 09:19 AM**			
Client ID:	Run ID: **TDS_240402B**				SeqNo: **10616927**			Prep Date: **3/29/2024**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	ND	30								

LCS	Sample ID: **LCS-237552-237552**				Units: **mg/L**			Analysis Date: **4/2/2024 09:19 AM**			
Client ID:	Run ID: **TDS_240402B**				SeqNo: **10616926**			Prep Date: **3/29/2024**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	500	30	495	0	101	85-109	0			

DUP	Sample ID: **24031982-04B DUP**				Units: **mg/L**			Analysis Date: **4/2/2024 09:19 AM**			
Client ID: **MW-4**	Run ID: **TDS_240402B**				SeqNo: **10616913**			Prep Date: **3/29/2024**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	986.7	100	0	0	0	0-0	993.3	0.673	10	

DUP	Sample ID: **24031990-01A DUP**				Units: **mg/L**			Analysis Date: **4/2/2024 09:19 AM**			
Client ID:	Run ID: **TDS_240402B**				SeqNo: **10616929**			Prep Date: **3/29/2024**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	2193	100	0	0	0	0-0	2193	0	10	

DUP	Sample ID: **24031992-02A DUP**				Units: **mg/L**			Analysis Date: **4/2/2024 09:19 AM**			
Client ID:	Run ID: **TDS_240402B**				SeqNo: **10616931**			Prep Date: **3/29/2024**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	2227	100	0	0	0	0-0	2227	0	10	

The following samples were analyzed in this batch:

24031982-01B	24031982-02B	24031982-03B
24031982-04B	24031982-05B	24031982-06B
24031982-07B		

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399553A** Instrument ID **IC4** Method: **SW9056A**

MBLK Sample ID: **MBLK-R399553A** Units: **mg/L** Analysis Date: **3/30/2024 12:54 PM**
Client ID: Run ID: **IC4_240330A** SeqNo: **10612034** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	ND	1.0								

LCS Sample ID: **LCS-R399553A** Units: **mg/L** Analysis Date: **3/30/2024 12:44 PM**
Client ID: Run ID: **IC4_240330A** SeqNo: **10612033** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	9.836	1.0	10	0	98.4	90-110	0			

MS Sample ID: **24031990-01A MS** Units: **mg/L** Analysis Date: **3/30/2024 05:47 PM**
Client ID: Run ID: **IC4_240330A** SeqNo: **10612054** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1534	10	100	1689	-155	90-110	0			SEO

MS Sample ID: **24031992-02A MS** Units: **mg/L** Analysis Date: **3/30/2024 05:47 PM**
Client ID: Run ID: **IC4_240330A** SeqNo: **10612640** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1534	10	100	1689	-155	90-110	0			SEO

MSD Sample ID: **24031990-01A MSD** Units: **mg/L** Analysis Date: **3/30/2024 05:57 PM**
Client ID: Run ID: **IC4_240330A** SeqNo: **10612055** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1548	10	100	1689	-141	90-110	1534	0.874	15	SEO

MSD Sample ID: **24031992-02A MSD** Units: **mg/L** Analysis Date: **3/30/2024 05:57 PM**
Client ID: Run ID: **IC4_240330A** SeqNo: **10612641** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1548	10	100	1689	-141	90-110	1534	0.874	15	SEO

The following samples were analyzed in this batch:

24031982-01B	24031982-02B	24031982-03B
24031982-04B	24031982-05B	24031982-06B
24031982-07B		

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399585A** Instrument ID **IC4** Method: **SW9056A**

MBLK	Sample ID: **MBLK-R399585A**				Units: **mg/L**			Analysis Date: **3/31/2024 11:31 AM**			
Client ID:		Run ID: **IC4_240331A**			SeqNo: **10613848**		Prep Date:		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	ND	1.0									

LCS	Sample ID: **LCS-R399585A**				Units: **mg/L**			Analysis Date: **3/31/2024 11:22 AM**			
Client ID:		Run ID: **IC4_240331A**			SeqNo: **10613847**		Prep Date:		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	9.232	1.0	10	0	92.3	88-110	0				

MS	Sample ID: **24031990-01A MS**				Units: **mg/L**			Analysis Date: **3/31/2024 03:18 PM**			
Client ID:		Run ID: **IC4_240331A**			SeqNo: **10613866**		Prep Date:		DF: **160**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	1505	160	1600	55.12	90.6	88-110	0				

MS	Sample ID: **24031992-02A MS**				Units: **mg/L**			Analysis Date: **3/31/2024 03:18 PM**			
Client ID:		Run ID: **IC4_240331A**			SeqNo: **10613924**		Prep Date:		DF: **160**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	1505	160	1600	55.12	90.6	88-110	0				

MSD	Sample ID: **24031992-02A MSD**				Units: **mg/L**			Analysis Date: **3/31/2024 03:28 PM**			
Client ID:		Run ID: **IC4_240331A**			SeqNo: **10613867**		Prep Date:		DF: **160**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	1500	160	1600	55.12	90.3	88-110	1505	0.317	15		

MSD	Sample ID: **24031990-01A MSD**				Units: **mg/L**			Analysis Date: **3/31/2024 03:28 PM**			
Client ID:		Run ID: **IC4_240331A**			SeqNo: **10613925**		Prep Date:		DF: **160**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	1500	160	1600	55.12	90.3	88-110	1505	0.317	15		

The following samples were analyzed in this batch:

24031982-01B	24031982-02B	24031982-03B
24031982-04B	24031982-05B	24031982-06B
24031982-07B		

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

Client: Williams Midstream
Work Order: 24031982
Project: Cottonwood CS

QC BATCH REPORT

Batch ID: **R399882C** Instrument ID **IC4** Method: **E300.0**

MBLK Sample ID: **MBLK-R399882C** Units: **mg/L** Analysis Date: **4/4/2024 12:28 AM**
Client ID: Run ID: **IC4_240403A** SeqNo: **10626976** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	ND	1.0								

LCS Sample ID: **LCS-R399882C** Units: **mg/L** Analysis Date: **4/4/2024 12:19 AM**
Client ID: Run ID: **IC4_240403A** SeqNo: **10626975** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	9.843	1.0	10	0	98.4	90-110	0			

MS Sample ID: **24031858-03A MS** Units: **mg/L** Analysis Date: **4/4/2024 12:48 AM**
Client ID: Run ID: **IC4_240403A** SeqNo: **10626988** Prep Date: DF: **40**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1928	40	400	1464	116	90-110	0			SE

MS Sample ID: **24031883-02A MS** Units: **mg/L** Analysis Date: **4/4/2024 12:48 AM**
Client ID: Run ID: **IC4_240403A** SeqNo: **10626999** Prep Date: DF: **40**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1928	40	400	1464	116	90-110	0			SE

MSD Sample ID: **24031883-02A MSD** Units: **mg/L** Analysis Date: **4/4/2024 12:58 AM**
Client ID: Run ID: **IC4_240403A** SeqNo: **10626989** Prep Date: DF: **40**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1918	40	400	1464	113	90-110	1928	0.542	15	SE

MSD Sample ID: **24031858-03A MSD** Units: **mg/L** Analysis Date: **4/4/2024 12:58 AM**
Client ID: Run ID: **IC4_240403A** SeqNo: **10627000** Prep Date: DF: **40**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1918	40	400	1464	113	90-110	1928	0.542	15	SE

The following samples were analyzed in this batch: 24031982-01B

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

24031982

WILLIAMSMIDSTREAM: Williams Midstream
Project: Black Sulphur CS

Chain of Custody Form

Page 1 of 1

ALS Environmental
3352 128th Ave
Holland, MI 49424
T (616) 399-6070

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	WPO058523	Project Name	Cottonwood CS	A	BTEX
Work Order	E1002146	Project Number		B	Naphthalene
Company Name	Williams Midstream	Bill To Company	Williams Midstream	C	1,2,4-trimethylbenzene
Send Report To	Aaron Galer	Invoice Attn.	Aaron Galer	D	1,3,5-trimethylbenzene
Address	295 Chipeta Way	Address	295 Chipeta Way	E	TDS
				F	Chloride
City/State/Zip	SLC, UT 84108	City/State/Zip	SLC, UT 84108	G	Sulfate
Phone	801-584-6746	Phone	801-584-6746	H	
Fax		Fax		I	
e-Mail Address	david.way@aptim.com; aaron.galer@williams.com; charles.kellnhofer@aptim.com;				

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	H
1	MW-1	3/26/2024	~~1230~~	W	1, 8	4	X	X	X	X	X	X	X				
2	MW-2	3/26/2024	1200	W	1, 8	4	X	X	X	X	X	X	X				
3	MW-3	3/26/2024	1145	W	1, 8	4	X	X	X	X	X	X	X				
4	MW-4	3/26/2024	1245	W	1, 8	4	X	X	X	X	X	X	X				
5	~~MW-5~~ N/A	~~3/26/2024~~		~~W~~	~~1, 8~~	~~4~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~				
6	MW-6	3/26/2024	1300	W	1, 8	4	X	X	X	X	X	X	X				
7	MW-7	3/26/2024	1315	W	1, 8	4	X	X	X	X	X	X	X				
8	DUP	3/26/2024	----------	W	1, 8	4	X	X	X	X	X	X	X				
9	Trip Blank	3/26/2024	----------	W	1, 8	2	X										
10	MW-9	3/27/24	1620	W	1, 8	4	X	X	X	X	X	X	X				

Sampler(s): Please Print & Sign
CHARLES KELLNHOFER

Shipment Method: Fedex

Required Turnaround Time: (Check Box) ☑ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
CHARLES KELLNHOFER	5/27/24 ~~3/27/2024~~	1645			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:
				5-28-24	0900
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		
	5-28-24	1200			

Notes: Please Run MW-9 w/ ~~24 hr~~ TAT

ALS Cooler ID	Cooler Temp
	4.4
	0.2

QC Package: (Check Box Below)
☐ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other: _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

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

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **WILLIAMSMIDSTREAM** Date/Time Received: **28-Mar-24 09:00**

Work Order: **24031982** Received by: **JD**

Checklist completed by Jason Delinger (eSignature) 28-Mar-24 (Date) Reviewed by: Chad Whelton (eSignature) 29-Mar-24 (Date)

Matrices: Water
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 ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	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 ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.4/4.4 C	DF2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/28/2024 12:01:53 PM		
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:

CorrectiveAction: