

DATA VALIDATION SUMMARY REPORT

for Samples Collected During Groundwater Monitoring Fort Wingate Depot Activity McKinley County, New Mexico

Data Validation by: Kortney Curry

Project Manager: Carrie Ross

Report Date: 2/14/25

Parsons – Austin

INTRODUCTION

The following data validation summary report covers eleven (11) water samples, and associated field quality control (QC) samples collected on October 3, 2024, at Fort Wingate Depot Activity (FWDA), located in McKinley County, New Mexico. The samples were logged under Sample Delivery Group (SDG) 280-197547.

The samples in this SDG were analyzed for the following parameters: orthophosphate as P by EPA Method 365.1 and anions by U.S. EPA Method 9056A.

All samples were collected by Eco & Associates, Inc. (ECO) and were submitted for analysis to Eurofins Environmental Testing America (EETA) Denver located in Arvada, Colorado. All containers were received by EETA at temperatures within the required temperature range of 0.1 to 6.0° Celsius. All containers were received at the laboratory in good condition.

All samples were prepared and analyzed following the procedures outlined in the project-specific Uniform Federal Policy - Quality Assurance Project Plan (UFP-QAPP) and the Department of Defense (DoD) Quality Systems Manual (QSM) Version 5.4. The following table details the samples included in this SDG discussed in this report and the analytical parameters performed.

SAMPLE IDS AND REQUESTED PARAMETERS

Client Sample ID	Laboratory Sample ID	Matrix	Parameter(s)
TMW50102024	280-197547-1	Water	A, O
TMW22102024	280-197547-2	Water	A, O
TMW08102024	280-197547-3	Water	A, O
MW35102024	280-197547-4	Water	A, O
TMW07102024	280-197547-5	Water	A, O
MW25102024	280-197547-6	Water	A, O
MW22D102024	280-197547-7	Water	A, O
TMW30102024	280-197547-8	Water	A, O
TMW10102024	280-197547-9	Water	A, O
TMW25102024	280-197547-10	Water	A, O
MW03102024	280-197547-11	Water	A, O

Parameters:

A=Anions

O= Orthophosphate as P

EXTRACTION, ANALYTICAL, AND REPORTING DETAILS

Parameter	Matrix	Prep Method	Analytical Method	Units
Anions	Water	--	SW846 9056A	ug/L
Orthophosphate as P	Water	--	EPA 365.1	ug/L

µg/L= micrograms per liter

EVALUATION CRITERIA

The data submitted by the laboratory has been reviewed and validated at a Stage 2B Validation was performed following the guidelines outlined in the project-specific UFP QAPP, DoD General Data Validation Guidelines, Rev 1 (Nov 2019) and published data validation guideline modules. Information reviewed in the data packages included sample results; field and laboratory quality control results; instrument calibration; calibration verifications; case narratives; sample receipt forms, chain-of-custody (COC) forms. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the associated analytical method, DoD QSM and QAPP were met.

A table detailing the data qualifiers applied for the samples in this SDG as a result of the data validation process is included as Attachment A to this report. Data validation checklists for each analytical method listed in the table above are also included in this report as Attachment B. An ADR.net summary report is included in this report as Attachment C.

ANIONS

General

The anions portion of this SDG consisted of eleven (11) water samples. The samples were collected on October 3, 2024, and were analyzed for anions as specified in the project-specific UFP-QAPP.

The anions analyses were performed in accordance with U.S. EPA Method SW846 9056A. All samples in this SDG were analyzed following the procedures outlined in the DoD QSM, version 5.4 and the project QAPP.

All samples were analyzed within the holding time required by the method with the following exceptions: samples MW22D102024, MW35102024 and TMW25102024 were analyzed outside the 48-hour holding time documented in the QAPP for nitrate and nitrite due to an instrument error that caused the run to stop. As such, detections were qualified “J-” as estimated low bias, and the non-detects were qualified “UJ” as estimated at the reporting limit.

The laboratory noted in the case narrative that one or more samples had chromatographic interferences caused by high concentrations that could adversely impact the identification and quantitation of target analytes. These interferences impacted fluoride in samples TMW08102024 and MW25102024. The results were qualified “J” as estimated.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the Laboratory Control Sample (LCS), Laboratory Control Sample Duplicate (LCSD), Matrix Spike (MS) and Matrix Spike Duplicate (MSD). Samples TMW22102024, MW35102024 and TMW07102024 were designated for MS/MSD analysis by the laboratory.

All LCS/LCSD spike recoveries were within acceptance criteria.

All MS/MSD spike recoveries were within acceptance criteria except for the following:

Parent Sample TMW22102024			
Analyte	MS %REC	MSD %REC	Criteria
sulfate	131*	126*	87-112%

*-outside acceptance criteria

Sulfate recovered high and outside criteria in the MS/MSD; therefore, the sulfate result in sample TMW22102024 was qualified “J+” as estimated high bias.

Precision

Precision was evaluated using the relative percent difference (RPD) obtained from the LCS/LCSD, MS/MSD and laboratory duplicate concentrations.

All LCS/LCSD and MS/MSD RPDs were within acceptance criteria.

All laboratory duplicate RPDs were within acceptance criteria except for the following:

Parent Sample TMW07102024		
Analyte	%RPD	Criteria
nitrate	12*	10%

*-outside acceptance criteria

The RPD for Nitrate exceeded acceptance criteria; therefore, the nitrate result in sample TMW07102024 was qualified “J” as estimated.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the DoD QSM and project QAPP;
- Comparing actual analytical procedures to those described in the DoD QSM and project-specific UFP-QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the DoD QSM and project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method with the exception previously noted. The following QC elements were also evaluated:

- All initial calibration (ICAL) criteria were met.
- The initial calibration verification (ICV) samples were prepared from a second source standard. All ICV criteria were met.
- All initial and continuing calibration blanks (ICB/CCB) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

Eight laboratory method blanks were associated with the anion analyses in this SDG. One or more method blanks had detections of chloride. The associated samples had chloride detections greater than 5x the method blank detections, as such, qualification of data was not warranted.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All results for anions for the samples in this SDG were considered usable. Therefore, the completeness for the anions portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

ORTHOPHOSPHATE AS P

General

The orthophosphate portion of this SDG consisted of eleven (11) water samples. The samples were collected on October 3, 2024 and were analyzed for orthophosphate as specified in the project-specific UFP-QAPP.

The orthophosphate analyses were performed in accordance with U.S. EPA Method 365.1. All samples in this SDG were analyzed following the procedures outlined in the DoD QSM, version 5.4 and the project QAPP. All samples were analyzed within the holding time required by the method.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS/LCSD and MS/MSD. Samples TMW07102024 and MW03102024 were designated for MS/MSD analysis by the laboratory.

All LCS/LCSD and MS/MSD spike recoveries were within acceptance criteria.

Precision

Precision was evaluated using the relative percent difference (RPD) obtained from the LCS/LCSD and MS/MSD concentrations.

All LCS/LCSD and MS/MSD RPDs were within acceptance criteria.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the DoD QSM and project QAPP;
- Comparing actual analytical procedures to those described in the DoD QSM and project-specific UFP-QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the DoD QSM and project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method. The following QC elements were also evaluated:

- All ICAL criteria were met.
- The ICV samples were prepared from a second source standard. All ICV criteria were met.
- All ICB/CCB criteria were met.
- All CCV criteria were met.

One laboratory method blank was associated with the orthophosphate analyses in this SDG. The laboratory method blank was non-detect for orthophosphate.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All results for orthophosphate for the samples in this SDG were considered usable. Therefore, the completeness for the orthophosphate portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

COMPARABILITY

All data was generated using contract-specific standard methods and reported with known data quality, type of analysis, units, etc.

DATA USABILITY

The purpose of this data validation report is to ensure the integrity and reliability of analytical laboratory data. The data quality is evaluated based on precision, accuracy, representativeness, comparability, and completeness (PARCC) characteristics of the data. The validated data indicated that the laboratory correctly performed the analyses. Based on the data quality assessment, none of the data were qualified as rejected.

All data in this SDG are considered usable, as qualified, for the purposes of this project. All Method Quality Objectives have been met.

SENSITIVITY

The detection limit (DL), limit of detection (LOD) and limit of quantitation (LOQ) values reported for the samples were compared to those listed in WS #15, Table 15.1 of the QAPP to ensure that sensitivity requirements were met. The DL, LOD, and LOQ values matched those listed in the QAPP before dilutions were taken into account. Several 5x, 10x, 20x and 50x dilutions were performed for anions analysis due to high concentrations and to reduce interference, as such, the reporting limits were adjusted accordingly. Even with the elevated reporting limits, all LOQs met the project quantitation limits (PQLs). Sensitivity requirements were met.

DATA QUALIFIER CHANGES

The sample results and final data qualifiers and reason codes that were added, removed, or changed as a result of the data validation process are included in a table as Attachment A to this report.

DATA QUALIFIER DEFINITIONS

The data qualifiers are defined in WS #36, Table 36.2 of the project QAPP as follows.

U = The analyte was not detected and was reported as less than the LOD. The LOD has been adjusted for any dilution or concentration of the sample.

J = The reported result was an estimated value with an unknown bias.

J+ = The reported result was an estimated quantity, but the result may be biased high.

J- = The reported result was an estimated quantity, but the result may be biased low.

UJ = The analyte was not detected and was reported as less than the LOD. However, the reported numerical value is approximate.

X= The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance (J-flag) or rejection (R-flag) of the data should be decided by the project team (which should include a project chemist) during the Data Usability Assessment process.

REASON CODE DEFINITIONS

These data validation reason codes were used to document the logic behind all data validation qualifiers:

Validation Qualifier Reason Codes	Validation Comments
BLL	Concentration in equipment blank at or above reporting limit.
BLM	Concentration in equipment blank less than reporting limit
BLN	Concentration in trip blank at or above reporting limit.
BLO	Concentration in trip blank less than reporting limit.
BLR	Concentration in field blank or decon blank at or above reporting limit.
BLS	Concentration in field blank or decon blank less than reporting limit.
BLT	Concentration in method blank less than reporting limit.
BLU	Concentration in method blank at or above reporting limit.
CO1	Column confirmation RPD exceeds acceptance limit.
CR1	Result exceeded calibration range.
DU1	Field duplicate RPD exceeds acceptance limit.
DU2	Laboratory duplicate RPD exceeds acceptance limit.
DU3	Field Duplicate RPD not calculated but results demonstrate a high degree of variability.
HS	VOA vial has headspace greater than 6 millimeters.
LC1	LCS and/or LCSD recovery above upper acceptance limit.
LC2	LCS and/or LCSD recovery below lower acceptance limit.
LC7	LCS/LCSD RPD exceeds acceptance limit.
MD1	MS and/or MSD recovery above upper acceptance limit.
MD2	MS and/or MSD recovery below lower acceptance limit.
MD5	MS/MSD RPD exceeds acceptance limit.
PJ	Professional judgment used. See specific details in Data Validation Report.
SC1	Analysis holding time exceeded.
SC3	Extraction holding time exceeded.
SC6	Temperature of sample outside acceptance range.
SU1	Surrogate recovery above upper acceptance limit.
SU2	Surrogate recovery below lower acceptance limit.
PR1	Samples not properly preserved.
TR	Result is detected between the reporting limit and detection limit.

ACRONYMS AND ABBREVIATIONS

The following is a list of acronyms and abbreviations that were used in this data validation report.

CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CoC	Chain of Custody
DL	Detection Limit
DoD	Department of Defense
ECO	Eco & Associates, Inc.
ETTA	Eurofins Environment Testing America
FWDA	Fort Wingate Depot Activity
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Project Quantitation Limit
QC	Quality Control
QSM	Quality Systems Manual
RPD	Relative Percent Difference
SDG	Sample Delivery Group
UFP-QAPP	Uniform Federal Policy – Quality Assurance Project Plan

Attachment A

Validated Data Summary

Fort Wingate Depot Activity Northern Area
McKinley County, New Mexico
Northern Area Groundwater Sampling
Validated Data Summary for Water Samples Collected September and October 2024

SAMPLE ID:		PROJECT QUANTITATION LIMIT GOAL (PQLG) ^[1]	MW03102024	MW22D102024	MW25102024	MW35102024	TMW07102024	TMW08102024	TMW10102024	TMW22102024	TMW25102024	TMW30102024	TMW50102024
DATE SAMPLED:			10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024	10/03/2024
LAB SAMPLE ID:			280-197620-8 280-197547-11	280-197620-12 280-197547-7	280-197620-6 280-197547-6	280-197620-11 280-197547-4	280-197620-2 280-197547-5	280-197620-3 280-197547-3	280-197620-9 280-197547-9	280-197620-5 280-197547-2	280-197620-10 280-197547-10	280-197620-7 280-197547-8	280-197620-4 280-197547-1
General Chemistry Orthophosphate as P - EPA 365.1 Anions - SW9056A	Unit												
	µg/L	20,000	50 U	50 U	20 J	50 U	23 J	50 U	33 J	46 J	21 J	43 J	91 J
	µg/L	na	620	890	1,200	670	510	4,400	500 U	750	990	780	1,100
	µg/L	250,000	280,000	210,000	250,000	280,000	160,000	840,000	620,000	130,000	150,000	69,000	160,000
	µg/L	1,600	380 J	370 J	260 J	180 J	430 J	1,900 J	1,000 U	890 J	610 J	430 J	440 J
	µg/L	10,000	9,300	11,000 J-	56,000	500 UJ	100 J	7,300	1,800	10,000	190 J	13,000	110 J
	µg/L	1,000	500 U	500 UJ	500 U	500 UJ	500 U	500 U	500 U	500 U	500 UJ	500 U	500 U
	µg/L	250,000	1,400,000	1,300,000	1,600,000	1,000,000	1,800,000	5,100,000	1,600,000	880,000 J+	910,000	550,000	560,000

QA NOTES AND DATA QUALIFIERS:

* - Field duplicate of sample on left.
(NO CODE) - Confirmed identification.
U - Analyte was analyzed for but not detected above the reported limit of quantitation (LOQ).
UJ - Analyte not detected, reported LOQ may be inaccurate or imprecise.
J - Analyte detected, estimated concentration.
J- - Analyte detected, estimated concentration with a low bias.
J+ - Analyte detected, estimated concentration with a high bias.
X - The presence or absence of the analyte cannot be substantiated due to deficiencies in meeting QC criteria.
Detections are bolded.

Detections above the PQLG are highlighted.

NOTES:

[1] The PQLG is the lower of the New Mexico Water Quality Control Commission standard (NM WQCC) and the EPA MCL. If the analyte does not have an NM WQCC or MCL but has an EPA Tap Water RSL, the lower value between the adjusted carcinogenic RSL (target excess cancer risk level of 1 x 10⁻⁵) and the non-carcinogenic RSL (with a target hazard index of 1.0) was selected.

µg/L - micrograms per liter

na - Limit not available

-- Analyte was not tested.

Attachment B

Checklists

VALIDATION CHECKLIST

SDG#: 280-197547

Date: 2/14/25

Laboratory: EETA

Reviewer: Kortney Curry

Method: 9056A & 365.1

	Validation Area	Acceptable? Y/N/NA	Comments
I.	Case narrative	Y	
II.	Sample receipt/Technical holding times	N	See DVR
III.	Instrument performance check/Tune	NA	
IV.	Initial calibration/ICV	Y	
V.	Continuing Calibration	Y	
VI.	Laboratory Blanks- MB, ICB/CCB	Y	
VI.	Field blanks	NA	
VII.	Interference check standard	NA	
VIII.	Matrix spike/Matrix spike duplicate	N	See DVR
IX.	Laboratory control samples	Y	
X.	Field duplicates/Field triplicates	NA	
XI.	External standards	NA	
XII.	Dilution test	NA	
XIII.	Post digestion spike	NA	
XIV.	Compound quantitation LOQ/LOD/DL	Y	
XV.	Target compound identification	Y	See DVR

Attachment C

ADR Summary Report



Data Review Sample Summary Report by Analysis Method

Reviewed By:

Approved By:

Laboratory: TAL DEN

Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
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Lab Reporting Batch: 280-197547-1

Method: 365.1

TMW30102024	280-197547-8	Water	Field_Sample	Gen Prep	10/3/2024 8:35:00 AM	S2AVE
TMW07102024MS	280-197547-5MS	Water	Matrix_Spike	Gen Prep	10/3/2024 7:25:00 AM	S2AVE
MW35102024	280-197547-4	Water	Field_Sample	Gen Prep	10/3/2024 2:00:00 PM	S2AVE
MW03102024MSD	280-197547-11MSD	Water	Matrix_Spike_Duplicate	Gen Prep	10/3/2024 11:45:00 AM	S2AVE
MW25102024	280-197547-6	Water	Field_Sample	Gen Prep	10/3/2024 11:40:00 AM	S2AVE
TMW22102024	280-197547-2	Water	Field_Sample	Gen Prep	10/3/2024 8:05:00 AM	S2AVE
TMW25102024	280-197547-10	Water	Field_Sample	Gen Prep	10/3/2024 2:20:00 PM	S2AVE
TMW08102024	280-197547-3	Water	Field_Sample	Gen Prep	10/3/2024 8:35:00 AM	S2AVE
MW22D102024	280-197547-7	Water	Field_Sample	Gen Prep	10/3/2024 1:10:00 PM	S2AVE
TMW07102024MSD	280-197547-5MSD	Water	Matrix_Spike_Duplicate	Gen Prep	10/3/2024 7:25:00 AM	S2AVE
TMW07102024	280-197547-5	Water	Field_Sample	Gen Prep	10/3/2024 7:25:00 AM	S2AVE
MW03102024	280-197547-11	Water	Field_Sample	Gen Prep	10/3/2024 11:45:00 AM	S2AVE
TMW10102024	280-197547-9	Water	Field_Sample	Gen Prep	10/3/2024 10:10:00 AM	S2AVE
MW03102024MS	280-197547-11MS	Water	Matrix_Spike	Gen Prep	10/3/2024 11:45:00 AM	S2AVE
TMW50102024	280-197547-1	Water	Field_Sample	Gen Prep	10/3/2024 9:00:00 AM	S2AVE

Method: 9056A

MW35102024MSD	280-197547-4MSD	Water	Matrix_Spike_Duplicate	Gen Prep	10/3/2024 2:00:00 PM	S2AVE
TMW10102024	280-197547-9	Water	Field_Sample	Gen Prep	10/3/2024 10:10:00 AM	S2AVE
MW03102024	280-197547-11	Water	Field_Sample	Gen Prep	10/3/2024 11:45:00 AM	S2AVE
TMW22102024MSD	280-197547-2MSD	Water	Matrix_Spike_Duplicate	Gen Prep	10/3/2024 8:05:00 AM	S2AVE
TMW30102024	280-197547-8	Water	Field_Sample	Gen Prep	10/3/2024 8:35:00 AM	S2AVE
TMW25102024	280-197547-10	Water	Field_Sample	Gen Prep	10/3/2024 2:20:00 PM	S2AVE
TMW22102024	280-197547-2	Water	Field_Sample	Gen Prep	10/3/2024 8:05:00 AM	S2AVE



Data Review Sample Summary Report by Analysis Method

Reviewed By:

Approved By:

Laboratory: TAL DEN

<i>Client Sample ID</i>	<i>Lab Sample ID</i>	<i>Matrix</i>	<i>Sample Type</i>	<i>Preparation Method</i>	<i>Collection Date</i>	<i>Validation Code</i>
Method: 9056A						
TMW07102024MS	280-197547-5MS	Water	Matrix_Spike	Gen Prep	10/3/2024 7:25:00 AM	S2AVE
TMW50102024	280-197547-1	Water	Field_Sample	Gen Prep	10/3/2024 9:00:00 AM	S2AVE
TMW07102024DUP	280-197547-5DUP	Water	Duplicate	Gen Prep	10/3/2024 7:25:00 AM	S2AVE
MW25102024	280-197547-6	Water	Field_Sample	Gen Prep	10/3/2024 11:40:00 AM	S2AVE
TMW07102024	280-197547-5	Water	Field_Sample	Gen Prep	10/3/2024 7:25:00 AM	S2AVE
MW22D102024	280-197547-7	Water	Field_Sample	Gen Prep	10/3/2024 1:10:00 PM	S2AVE
MW35102024	280-197547-4	Water	Field_Sample	Gen Prep	10/3/2024 2:00:00 PM	S2AVE
MW35102024MS	280-197547-4MS	Water	Matrix_Spike	Gen Prep	10/3/2024 2:00:00 PM	S2AVE
MW35102024DUP	280-197547-4DUP	Water	Duplicate	Gen Prep	10/3/2024 2:00:00 PM	S2AVE
TMW07102024MSD	280-197547-5MSD	Water	Matrix_Spike_Duplicate	Gen Prep	10/3/2024 7:25:00 AM	S2AVE
TMW08102024	280-197547-3	Water	Field_Sample	Gen Prep	10/3/2024 8:35:00 AM	S2AVE
TMW22102024DUP	280-197547-2DUP	Water	Duplicate	Gen Prep	10/3/2024 8:05:00 AM	S2AVE
TMW22102024MS	280-197547-2MS	Water	Matrix_Spike	Gen Prep	10/3/2024 8:05:00 AM	S2AVE



Data Review Sample Summary Report by Analysis Method

Reviewed By:

Approved By:

Laboratory: TAL DEN

<i>Client Sample ID</i>	<i>Lab Sample ID</i>	<i>Matrix</i>	<i>Sample Type</i>	<i>Preparation Method</i>	<i>Collection Date</i>	<i>Validation Code</i>
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Validation Label Legend

<i>Label Code</i>	<i>Label Description</i>	<i>EPA Level</i>
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with calibration
S2BVM	Stage_2B_Validation_Manual	Level 3 with calibration
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with calibration
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4
NV	Not_Validated	N/A



Data Review Summary

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename: 280-197547-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

Validation Area

Note

Technical Holding Times	SR
Temperature	A
Initial Calibration	N
Continuing Calibration/Initial Calibration Verification	N
Method Blanks	SR
Surrogate/Tracer Spikes	N
Matrix Spike/Matrix Spike Duplicates	SR
Laboratory Duplicates	SR
Laboratory Replicates	N
Laboratory Control Samples	A
Compound Quantitation	SR
Field Duplicates	N
Field Triplicates	N
Field Blanks	N

A = Acceptable, N = Not provided/applicable, SR = See report

The contents of this report reflect findings made by ADR during Automated Data Review, manual applied qualifiers are not considered. Please refer to the Overall Qualifier Summary report for manual qualifiers.

Temperature Outliers

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename: 280-197547-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

No Data Review Qualifiers Applied

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename: 280-197547-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

Method: 9056A

Preparation Method: Gen Prep

Matrix: Water

Sample ID	Type	Actual	Criteria	Units	Flag
MW22D102024 (Initial/TOT)	Sampling To Analysis	56.00	48.00	HOURS	J- (all detects)
MW22D102024 (Initial/TOT)		56.25	48.00	HOURS	UJ (all non-detects)
MW35102024 (Initial/TOT)		56.50	48.00	HOURS	
MW35102024DUP (Initial/TOT)		56.50	48.00	HOURS	
MW35102024MS (Initial/TOT)		56.75	48.00	HOURS	
MW35102024MSD (Initial/TOT)		57.00	48.00	HOURS	
TMW25102024 (Initial/TOT)		57.00	48.00	HOURS	

Project Name and Number: Fort Wingate Depot

12/17/2024 2:18:51 PM

ADR version 1.9.0.325

Page 1 of 1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename: 280-197547-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

Method: 9056A	
Matrix: Water	

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-670904/39	10/14/2024 10:29:00 PM	CHLORIDE	1130 ug/L	MW03102024 MW22D102024 MW25102024 MW35102024 TMW07102024 TMW08102024 TMW22102024 TMW25102024 TMW30102024 TMW50102024
MB 280-670904/6	10/14/2024 1:04:00 PM	CHLORIDE	1160 ug/L	MW03102024 MW22D102024 MW25102024 MW35102024 TMW07102024 TMW08102024 TMW22102024 TMW25102024 TMW30102024 TMW50102024
MB 280-670904/80	10/15/2024 6:11:00 AM	CHLORIDE	1150 ug/L	MW03102024 MW22D102024 MW25102024 MW35102024 TMW07102024 TMW08102024 TMW22102024 TMW25102024 TMW30102024 TMW50102024

Project Name and Number: Fort Wingate Depot Activity Northern Area - NM6213820974

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Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename: 280-197547-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

No Data Review Qualifiers Applied
--

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename: 280-197547-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

Method: 9056A

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
TMW22102024MS TMW22102024MSD (TMW22102024)	SULFATE	131	126	87.00-112.00	-	SULFATE	J+ (all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename:

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

280-197547-1_52_2a_ParsonsFtWingate

Method: 9056A

Matrix: Water

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
TMW07102024DUP (TMW07102024)	Nitrate as N	12	10.00	J (all detects)

Project Name and Number: Fort Wingate Depot Activity Northern Area - NM6213820974

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename: 280-197547-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

Method: 365.1

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW25102024	Orthophosphate as P	J	20	50	LOQ	ug/L	J (all detects)
TMW07102024	Orthophosphate as P	J	23	50	LOQ	ug/L	J (all detects)
TMW10102024	Orthophosphate as P	J	33	50	LOQ	ug/L	J (all detects)
TMW22102024	Orthophosphate as P	J	46	50	LOQ	ug/L	J (all detects)
TMW25102024	Orthophosphate as P	J	21	50	LOQ	ug/L	J (all detects)
TMW30102024	Orthophosphate as P	J	43	50	LOQ	ug/L	J (all detects)
TMW50102024	Orthophosphate as P	J D	91	250	LOQ	ug/L	J (all detects)

Method: 9056A

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW03102024	FLUORIDE	J	380	1000	LOQ	ug/L	J (all detects)
MW22D102024	FLUORIDE	J	370	1000	LOQ	ug/L	J (all detects)
MW25102024	FLUORIDE	J	260	1000	LOQ	ug/L	J (all detects)
MW35102024	FLUORIDE	J	180	1000	LOQ	ug/L	J (all detects)
TMW07102024	FLUORIDE	J J1	430	1000	LOQ	ug/L	J (all detects)
	Nitrate as N	J	100	500	LOQ	ug/L	J (all detects)
TMW22102024	FLUORIDE	J	890	1000	LOQ	ug/L	J (all detects)
TMW25102024	FLUORIDE	J	610	1000	LOQ	ug/L	J (all detects)
	Nitrate as N	J H	190	500	LOQ	ug/L	J (all detects)
TMW30102024	FLUORIDE	J	430	1000	LOQ	ug/L	J (all detects)
TMW50102024	FLUORIDE	J	440	1000	LOQ	ug/L	J (all detects)
	Nitrate as N	J	110	500	LOQ	ug/L	J (all detects)

Project Name and Number: Fort Wingate Depot Activity Northern Area - NM6213820974

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Data Qualifier Summary

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename:

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

280-197547-1_52_2a_ParsonsFtWingate_rev

Method Category: GENCHEM

Sample ID: MW25102024		10/3/2024 11:40:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Orthophosphate as P	20	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID: TMW07102024		10/3/2024 7:25:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Orthophosphate as P	23	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID: TMW10102024		10/3/2024 10:10:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Orthophosphate as P	33	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID: TMW22102024		10/3/2024 8:05:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Orthophosphate as P	46	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID: TMW25102024		10/3/2024 2:20:00 Collected: PM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Orthophosphate as P	21	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID: TMW30102024		10/3/2024 8:35:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Orthophosphate as P	43	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID: TMW50102024		10/3/2024 9:00:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Orthophosphate as P	91	J D	200	LOD	250	LOQ	ug/L	J	TR

* denotes a non-reportable result

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Data Qualifier Summary

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename:
280-197547-1_52_2a_ParsonsFtWingate_rev

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

Method Category: GENCHEM

Sample ID: MW03102024		10/3/2024 11:45:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	380	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID: MW22D102024		10/3/2024 1:10:00 Collected: PM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	370	J	500	LOD	1000	LOQ	ug/L	J	TR
Nitrate as N	11000	H D	2000	LOD	5000	LOQ	ug/L	J-	SC1
Nitrite as N	100	U H	100	LOD	500	LOQ	ug/L	UJ	SC1

Sample ID: MW25102024		10/3/2024 11:40:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	260	J	500	LOD	1000	LOQ	ug/L	J	TR, PJ

Sample ID: MW35102024		10/3/2024 2:00:00 Collected: PM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	180	J	500	LOD	1000	LOQ	ug/L	J	TR
Nitrate as N	200	U H	200	LOD	500	LOQ	ug/L	UJ	SC1
Nitrite as N	100	U H	100	LOD	500	LOQ	ug/L	UJ	SC1

Sample ID: TMW07102024		10/3/2024 7:25:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	430	J J1	500	LOD	1000	LOQ	ug/L	J	TR
Nitrate as N	100	J	200	LOD	500	LOQ	ug/L	J	TR, DU2

Sample ID: TMW08102024		10/3/2024 8:35:00 Collected: AM		Analysis Type: Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1900		500	LOD	1000	LOQ	ug/L	J	PJ

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Data Qualifier Summary

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename:

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

280-197547-1_52_2a_ParsonsFtWingate_rev

Method Category: GENCHEM

Sample ID:TMW22102024		10/3/2024 8:05:00 Collected:AM		Analysis Type:Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	890	J	500	LOD	1000	LOQ	ug/L	J	TR
SULFATE	880000	J1 D	13000	LOD	25000	LOQ	ug/L	J+	MD1

Sample ID:TMW25102024		10/3/2024 2:20:00 Collected:PM		Analysis Type:Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	610	J	500	LOD	1000	LOQ	ug/L	J	TR
Nitrate as N	190	J H	200	LOD	500	LOQ	ug/L	J	TR, SC1
Nitrite as N	100	U H	100	LOD	500	LOQ	ug/L	UJ	SC1

Sample ID:TMW30102024		10/3/2024 8:35:00 Collected:AM		Analysis Type:Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	430	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:TMW50102024		10/3/2024 9:00:00 Collected:AM		Analysis Type:Initial/TOT				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	440	J	500	LOD	1000	LOQ	ug/L	J	TR
Nitrate as N	110	J	200	LOD	500	LOQ	ug/L	J	TR

* denotes a non-reportable result

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Data Qualifier Summary

Lab Reporting Batch ID: 280-197547-1

Laboratory: TAL DEN

EDD Filename:

280-197547-1_52_2a_ParsonsFtWingate_rev

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
BLT/BLU	Method Blank Contamination
DU2	Laboratory Duplicate Precision
MD1	Matrix Spike Upper Estimation
PJ	Professional Judgment
SC1	Sampling to Analysis Estimation
TR	Reporting Limit Trace Value

* denotes a non-reportable result

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