

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 seventeen (17) water samples, and associated field quality control (QC) samples collected on October 7, 2024, at Fort Wingate Depot Activity (FWDA), located in McKinley County, New Mexico. The samples were logged under Sample Delivery Group (SDG) 280-197680.

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)
TMW57102024	280-197680-1	Water	A, O
FDUP08-102024 (Field Duplicate of TMW17102024)	280-197680-2	Water	A, O
TMW61102024	280-197680-3	Water	A, O
TMW59102024	280-197680-4	Water	A, O
TMW53102024	280-197680-5	Water	A, O
FW31102024	280-197680-6	Water	A, O
TMW49102024	280-197680-7	Water	A, O
TMW28102024	280-197680-8	Water	A, O
MW26102024	280-197680-9	Water	A, O
MW36D102024	280-197680-10	Water	A, O
TMW39S102024	280-197680-11	Water	A, O
MW36S102024	280-197680-12	Water	A, O
TMW17102024	280-197680-13	Water	A, O
MW34102024	280-197680-14	Water	A, O
MW27102024	280-197680-15	Water	A, O
MW33102024	280-197680-16	Water	A, O
FDUP07102024 (Field Duplicate of MW33102024)	280-197680-17	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 seventeen (17) water samples. The samples were collected on October 7, 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.

The laboratory noted in the case narrative that one or more samples had chromatographic interferences caused by high concentrations of sulfate that could adversely impact the identification and quantitation of target analytes. These interferences impacted nitrate in sample TMW49102024 and fluoride in sample MW36S102024. The nitrate and fluoride 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). Sample TMW28102024 was 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 TMW28102024			
Analyte	MS %REC	MSD %REC	Criteria
bromide	110	113*	91-110%

*-outside acceptance criteria

Bromide recovered high and outside criteria in the MSD. The result in sample TMW28102024 was non-detect, as such qualification was not warranted.

Precision

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

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

Precision was further evaluated by comparing the field duplicate results. The following samples were submitted to the lab as blind field duplicate samples: FDUP07102024 (parent sample – MW33102024), and FDUP08-102024 (parent sample – TMW17102024). All RPDs for anion results 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 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.

Eleven laboratory method blanks were associated with the anions analyses in this SDG. Chloride was detected in the laboratory method blank associated with analysis batch 671537. The associated samples had chloride detections greater than 5x the method blank detection, 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 seventeen (17) water samples. The samples were collected on October 7, 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 TMW39S102024 and TMW28102024 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 RPD obtained from the LCS/LCSD and MS/MSD concentrations.

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

Precision was further evaluated by comparing the field duplicate results. The following samples were submitted to the lab as blind field duplicate samples: FDUP07102024 (parent sample – MW33102024), and FDUP08-102024 (parent sample – TMW17102024). The RPD for orthophosphate for FDUP07102024 (parent sample – MW33102024) exceeded acceptance criteria of 30%. As such, the orthophosphate results in both samples were 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. 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]	FW31102024	MW26102024	MW27102024	MW33102024	FDUP07102024*	MW34102024	MW36D102024	MW36S102024
DATE SAMPLED:			10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024
LAB SAMPLE ID:			280-197749-17 280-197680-6	280-197749-5 280-197680-9	280-197749-4 280-197680-15	280-197749-2 280-197680-16	280-197749-1 280-197680-17	280-197749-6 280-197680-14	280-197749-7 280-197680-10	280-197749-10 280-197680-12
General Chemistry Orthophosphate as P - EPA 365.1 Orthophosphate as P Anions - SW9056A Bromide Chloride Fluoride Nitrate as N Nitrite as N Sulfate	Unit									
	µg/L	20,000	50 U	62	50 U	120 J	76 J	48 J	910	50 U
	µg/L	na	500 U	1,300	790	1,400	1,400	1,900	1,000	500 U
	µg/L	250,000	8,700	350,000	120,000	240,000	240,000	430,000	100,000	540,000
	µg/L	1,600	3,000	540 J	510 J	1,100	1,100	570 J	780 J	1,000 J
	µg/L	10,000	500 U	1,700	25,000	500 U	500 U	9,100	1,100	160 J
	µg/L	1,000	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
	µg/L	250,000	670,000	1,200,000	1,000,000	750,000	750,000	2,100,000	34,000	4,200,000

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.

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]	TMW17102024	FDUP08-102024*	TMW28102024	TMW39S102024	TMW49102024	TMW53102024	TMW57102024	TMW59102024	TMW61102024
DATE SAMPLED:			10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024
LAB SAMPLE ID:			280-197749-9 280-197680-13	280-197749-12 280-197680-2	280-197749-3 280-197680-8	280-197749-8 280-197680-11	280-197749-16 280-197680-7	280-197749-15 280-197680-5	280-197749-13 280-197680-1	280-197749-14 280-197680-4	280-197749-11 280-197680-3
General Chemistry Orthophosphate as P - EPA 365.1 Orthophosphate as P Anions - SW9056A Bromide Chloride Fluoride Nitrate as N Nitrite as N Sulfate	Unit										
	µg/L	20,000	50 U	50 U	430	21 J	19 J	57	34 J	110	57
	µg/L	na	400 J	400 J	500 U	2,100	1,000	230 J	690	640	1,500
	µg/L	250,000	140,000	140,000	97,000	230,000	190,000	87,000	66,000	92,000	580,000
	µg/L	1,600	850 J	850 J	640 J	490 J	450 J	2,800	2,000	890 J	770 J
	µg/L	10,000	500 U	500 U	500 U	8,900	7,900 J	500 U	750	42,000	21,000
	µg/L	1,000	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
	µg/L	250,000	520,000	500,000	520,000	1,200,000	780,000	260,000	230,000	830,000	5,000 U

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 1×10^{-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#: 280-197680

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	Y	
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	Y	
IX.	Laboratory control samples	Y	
X.	Field duplicates/Field triplicates	N	See DVR
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: KAC (12/19/2024)

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: 280-197680-1

Method: 365.1

TMW61102024	280-197680-3	Water	Field_Sample	Gen Prep	10/7/2024 12:00:00 PM	S2AVE
TMW28102024MSD	280-197680-8MSD	Water	Matrix_Spike_Duplicate	Gen Prep	10/7/2024 8:20:00 AM	S2AVE
TMW57102024	280-197680-1	Water	Field_Sample	Gen Prep	10/7/2024 10:40:00 AM	S2AVE
MW36S102024	280-197680-12	Water	Field_Sample	Gen Prep	10/7/2024 8:10:00 AM	S2AVE
MW26102024	280-197680-9	Water	Field_Sample	Gen Prep	10/7/2024 9:10:00 AM	S2AVE
TMW39S102024MSD	280-197680-11MSD	Water	Matrix_Spike_Duplicate	Gen Prep	10/7/2024 10:00:00 AM	S2AVE
MW36D102024	280-197680-10	Water	Field_Sample	Gen Prep	10/7/2024 8:45:00 AM	S2AVE
FDUP08-102024	280-197680-2	Water	Field_Duplicate	Gen Prep	10/7/2024 11:35:00 AM	S2AVE
TMW28102024MS	280-197680-8MS	Water	Matrix_Spike	Gen Prep	10/7/2024 8:20:00 AM	S2AVE
TMW49102024	280-197680-7	Water	Field_Sample	Gen Prep	10/7/2024 2:00:00 PM	S2AVE
TMW39S102024	280-197680-11	Water	Field_Sample	Gen Prep	10/7/2024 10:00:00 AM	S2AVE
TMW59102024	280-197680-4	Water	Field_Sample	Gen Prep	10/7/2024 10:25:00 AM	S2AVE
TMW17102024	280-197680-13	Water	Field_Sample	Gen Prep	10/7/2024 11:25:00 AM	S2AVE
MW34102024	280-197680-14	Water	Field_Sample	Gen Prep	10/7/2024 8:40:00 AM	S2AVE
MW33102024	280-197680-16	Water	Field_Sample	Gen Prep	10/7/2024 7:30:00 AM	S2AVE
TMW39S102024MS	280-197680-11MS	Water	Matrix_Spike	Gen Prep	10/7/2024 10:00:00 AM	S2AVE
MW27102024	280-197680-15	Water	Field_Sample	Gen Prep	10/7/2024 7:20:00 AM	S2AVE
FW31102024	280-197680-6	Water	Field_Sample	Gen Prep	10/7/2024 12:15:00 PM	S2AVE
TMW53102024	280-197680-5	Water	Field_Sample	Gen Prep	10/7/2024 9:40:00 AM	S2AVE
FDUP07102024	280-197680-17	Water	Field_Duplicate	Gen Prep	10/7/2024 7:40:00 AM	S2AVE
TMW28102024	280-197680-8	Water	Field_Sample	Gen Prep	10/7/2024 8:20:00 AM	S2AVE

Method: 9056A

TMW49102024	280-197680-7	Water	Field_Sample	Gen Prep	10/7/2024 2:00:00 PM	S2AVE
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Data Review Sample Summary Report by Analysis Method

Reviewed By: KAC (12/19/2024)

Approved By:

Laboratory: TAL DEN

Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: 9056A						
TMW59102024	280-197680-4	Water	Field_Sample	Gen Prep	10/7/2024 10:25:00 AM	S2AVE
MW34102024	280-197680-14	Water	Field_Sample	Gen Prep	10/7/2024 8:40:00 AM	S2AVE
FDUP08-102024	280-197680-2	Water	Field_Duplicate	Gen Prep	10/7/2024 11:35:00 AM	S2AVE
TMW61102024	280-197680-3	Water	Field_Sample	Gen Prep	10/7/2024 12:00:00 PM	S2AVE
TMW28102024	280-197680-8	Water	Field_Sample	Gen Prep	10/7/2024 8:20:00 AM	S2AVE
MW27102024	280-197680-15	Water	Field_Sample	Gen Prep	10/7/2024 7:20:00 AM	S2AVE
TMW53102024	280-197680-5	Water	Field_Sample	Gen Prep	10/7/2024 9:40:00 AM	S2AVE
TMW28102024MSD	280-197680-8MSD	Water	Matrix_Spike_Duplicate	Gen Prep	10/7/2024 8:20:00 AM	S2AVE
TMW28102024MS	280-197680-8MS	Water	Matrix_Spike	Gen Prep	10/7/2024 8:20:00 AM	S2AVE
MW26102024	280-197680-9	Water	Field_Sample	Gen Prep	10/7/2024 9:10:00 AM	S2AVE
MW36S102024	280-197680-12	Water	Field_Sample	Gen Prep	10/7/2024 8:10:00 AM	S2AVE
TMW28102024DUP	280-197680-8DUP	Water	Duplicate	Gen Prep	10/7/2024 8:20:00 AM	S2AVE
TMW39S102024	280-197680-11	Water	Field_Sample	Gen Prep	10/7/2024 10:00:00 AM	S2AVE
FW31102024	280-197680-6	Water	Field_Sample	Gen Prep	10/7/2024 12:15:00 PM	S2AVE
TMW57102024	280-197680-1	Water	Field_Sample	Gen Prep	10/7/2024 10:40:00 AM	S2AVE
TMW17102024	280-197680-13	Water	Field_Sample	Gen Prep	10/7/2024 11:25:00 AM	S2AVE
MW36D102024	280-197680-10	Water	Field_Sample	Gen Prep	10/7/2024 8:45:00 AM	S2AVE
FDUP07102024	280-197680-17	Water	Field_Duplicate	Gen Prep	10/7/2024 7:40:00 AM	S2AVE
MW33102024	280-197680-16	Water	Field_Sample	Gen Prep	10/7/2024 7:30:00 AM	S2AVE



Data Review Sample Summary Report by Analysis Method

Reviewed By: KAC (12/19/2024)

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: 280-197680-1

Laboratory: TAL DEN

EDD Filename: 280-197680-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

Validation Area

Note

Technical Holding Times	A
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	A
Laboratory Replicates	N
Laboratory Control Samples	A
Compound Quantitation	SR
Field Duplicates	SR
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: 280-197680-1

Laboratory: TAL DEN

EDD Filename: 280-197680-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

No Data Review Qualifiers Applied

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename: 280-197680-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

No Data Review Qualifiers Applied.

Project Name and Number: Fort Wingate Depot

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Method Blank Outlier Report

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename: 280-197680-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

Method:	9056A
Method:	Method

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-671537/62	10/19/2024 12:25:00 AM	CHLORIDE	1030 ug/L	FDUP07102024 FDUP08-102024 FW31102024 MW26102024 MW27102024 MW33102024 MW34102024 MW36D102024 MW36S102024 TMW17102024 TMW28102024 TMW39S102024 TMW53102024 TMW57102024 TMW59102024 TMW61102024

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: 280-197680-1

Laboratory: TAL DEN

EDD Filename: 280-197680-1_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: 280-197680-1

Laboratory: TAL DEN

EDD Filename: 280-197680-1_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
TMW28102024MSD (TMW28102024)	BROMIDE	-	113	91.00-110.00	-	BROMIDE	J+ (all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename: 280-197680-1_52_2a_ParsonsFtWingate

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

No Data Review Qualifiers Applied.

Field Duplicate Outlier Report

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename:

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ

280-197680-1_52_2a_ParsonsFtWingate_rev_rev

Method: 365.1

Method: 365.1

Analyte	Concentration (ug/L)		Sample RPD	eQAPP RPD	Flag
	MW33102024	FDUP07102024			
Orthophosphate as P	120	76	45	30.00	J (all detects) U (all non-detects)

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

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename: 280-197680-1_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
MW34102024	Orthophosphate as P	J	48	50	LOQ	ug/L	J (all detects)
TMW39S102024	Orthophosphate as P	J	21	50	LOQ	ug/L	J (all detects)
TMW49102024	Orthophosphate as P	J	19	50	LOQ	ug/L	J (all detects)
TMW57102024	Orthophosphate as P	J	34	50	LOQ	ug/L	J (all detects)

Method: 9056A

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDUP08-102024	BROMIDE FLUORIDE	J	400	500	LOQ	ug/L	J (all detects)
		J	850	1000	LOQ	ug/L	
MW26102024	FLUORIDE	J	540	1000	LOQ	ug/L	J (all detects)
MW27102024	FLUORIDE	J	510	1000	LOQ	ug/L	J (all detects)
MW34102024	FLUORIDE	J	570	1000	LOQ	ug/L	J (all detects)
MW36D102024	FLUORIDE	J	780	1000	LOQ	ug/L	J (all detects)
MW36S102024	Nitrate as N	J	160	500	LOQ	ug/L	J (all detects)
TMW17102024	BROMIDE FLUORIDE	J	400	500	LOQ	ug/L	J (all detects)
		J	850	1000	LOQ	ug/L	
TMW28102024	FLUORIDE	J	640	1000	LOQ	ug/L	J (all detects)
TMW39S102024	FLUORIDE	J	490	1000	LOQ	ug/L	J (all detects)
TMW49102024	FLUORIDE	J	450	1000	LOQ	ug/L	J (all detects)
TMW53102024	BROMIDE	J	230	500	LOQ	ug/L	J (all detects)
TMW59102024	FLUORIDE	J	890	1000	LOQ	ug/L	J (all detects)
TMW61102024	FLUORIDE	J	770	1000	LOQ	ug/L	J (all detects)



Field QC Assignments and Associated Samples

EDD File Name: 280-197680-1

eQapp Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

	Associated Samples	Sample Collection Date
Field QC FDUP07102024 QC Type: Field_Duplicate	TMW57102024	10/7/2024 10:40:00 AM
Field QC FDUP08-102024 QC Type: Field_Duplicate	MW33102024	10/7/2024 7:30:00 AM



Data Qualifier Summary

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename:

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

280-197680-1_52_2a_ParsonsFtWingate_rev

Method Category: GENCHEM

Sample ID:FDUP07102024		10/7/2024 7:40:00 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	76		40	LOD	50	LOQ	ug/L	J	DU1

Sample ID:MW33102024		10/7/2024 7:30:00 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	120		40	LOD	50	LOQ	ug/L	J	DU1

Sample ID:MW34102024		10/7/2024 8:40:00 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	48	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID:TMW39S102024		10/7/2024 10:00:00 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
Orthophosphate as P	21	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID:TMW49102024		10/7/2024 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
Orthophosphate as P	19	J	40	LOD	50	LOQ	ug/L	J	TR

Sample ID:TMW57102024		10/7/2024 10:40:00 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	34	J	40	LOD	50	LOQ	ug/L	J	TR

* denotes a non-reportable result

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Data Qualifier Summary

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename:
280-197680-1_52_2a_ParsonsFtWingate_rev

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

Method Category: GENCHEM

Sample ID:FDUP08-102024		10/7/2024 11:35:00 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
BROMIDE	400	J	500	LOD	500	LOQ	ug/L	J	TR
FLUORIDE	850	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:MW26102024		10/7/2024 9:10:00 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
FLUORIDE	540	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:MW27102024		10/7/2024 7:20:00 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	510	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:MW34102024		10/7/2024 8:40:00 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	570	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:MW36D102024		10/7/2024 8:45:00 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	780	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:MW36S102024		10/7/2024 8:10:00 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
FLUORIDE	1000		500	LOD	1000	LOQ	ug/L	J	PJ
Nitrate as N	160	J	200	LOD	500	LOQ	ug/L	J	TR

Sample ID:TMW17102024		10/7/2024 11:25:00 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
BROMIDE	400	J	500	LOD	500	LOQ	ug/L	J	TR

* denotes a non-reportable result

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Data Qualifier Summary

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename:
280-197680-1_52_2a_ParsonsFtWingate_rev

eQAPP Name: Fort_Wingate_rev2_hexchrom_AQ HT_24hr

Method Category: GENCHEM

Sample ID:TMW17102024		10/7/2024 11:25:00 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	850	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:TMW28102024		10/7/2024 8:20:00 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	640	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:TMW39S102024		10/7/2024 10:00:00 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	490	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:TMW49102024		10/7/2024 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	450	J	500	LOD	1000	LOQ	ug/L	J	TR
Nitrate as N	7900	M	200	LOD	500	LOQ	ug/L	J	PJ

Sample ID:TMW53102024		10/7/2024 9:40:00 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
BROMIDE	230	J	500	LOD	500	LOQ	ug/L	J	TR

Sample ID:TMW59102024		10/7/2024 10:25:00 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	890	J	500	LOD	1000	LOQ	ug/L	J	TR

Sample ID:TMW61102024		10/7/2024 12:00:00 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	770	J	500	LOD	1000	LOQ	ug/L	J	TR

* denotes a non-reportable result

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

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Data Qualifier Summary

Lab Reporting Batch ID: 280-197680-1

Laboratory: TAL DEN

EDD Filename:
280-197680-1_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
DU1	Field Duplicate Precision
MD1	Matrix Spike Upper Estimation
PJ	Professional Judgment
TR	Reporting Limit Trace Value

* denotes a non-reportable result

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

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