BACKGROUND WATER QUALITY STATISTICAL CERTIFICATION

for Compliance with the Coal Combustion Residuals (CCR) Rule

Pawnee Station

Public Service Company of Colorado

January 15, 2018

Table of Contents

List of Tables

List of Figures

List of Appendices

Table of Abbreviations and Acronyms

Abbreviation	Definition
BDL	below detection limits
BTV	background threshold value
CCR	Coal Combustion Residuals
COI	constituent of interest
EDD	electronic data deliverable
EPA	Environmental Protection Agency
GOF	Goodness-of-Fit
LCS	Laboratory Control Samples
MDL	method detection limit
MLE	Maximum Likelihood Estimate
MS/MSD	Matrix Spike/Duplicate
ND	non-detects
QC	quality control
SOP	Standard Operating Procedure
SSI	statistically significant increase
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
UPL	upper prediction limit

Certification

Background Water Quality Statistical Certification for Compliance with the Coal Combustion Residuals Rule

I hereby certify to the best of my knowledge that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area.

I am duly licensed Professional Engineer under the laws of the State of Colorado.

Matthew Rohr, PE

Colorado PE License 0053467

License renewal date October 31, 2019

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1.0 Introduction

The U.S. Environmental Protection Agency's (EPA's) final Coal Combustion Residuals (CCR) Rule establishes a comprehensive set of requirements for the management and disposal of CCR (or coal ash) in landfills and surface impoundments by electric utilities. Pawnee Station, located in Morgan County, Colorado (**Figure 1**), has one active CCR unit, a landfill subject to the CCR Rule (**Figure 2**). Part 257.93 of the Rule requires that a certification be obtained from a professional engineer describing the statistical method selected to evaluate the groundwater monitoring data at the facility.

The objective of this report is to document the selection of the statistical method for each Appendix III and IV constituent of interest (COI) in the background/upgradient wells for the CCR facility. At Pawnee, groundwater monitoring has been conducted to collect eight rounds of background sampling before October 17, 2017 as specified under CCR Rule Part 257.94. The water quality data collected from the monitoring wells located upgradient of the CCR unit has been compiled and statistically analyzed to develop background threshold values (BTVs) for each COI. The statistical method chosen to represent background water quality is the upper prediction limit (UPL) and is one of the methods described in the CCR Rule Part 257.93 (f)(3). This background water quality report documents the background sample events and describes the statistics performed to develop the BTVs.

2.0 Facility Description

Pawnee Station is a coal-fired, steam turbine electric generating station. The fuel source for the existing coal-fired units is sub-bituminous, low-sulfur coal from the Eagle Butte Mine near Gillette, Wyoming. Pawnee Station currently has one unlined landfill unit, North Landfill, used for storage of CCR that has been in use since operations began in 1981 (**Figure 2).** Landfill operations consist primarily of management of CCR bottom ash and fly ash and disposal of minor amounts of other approved non-CCR waste. The CCR landfill is operated as a single cell approximately 16 acres in area. The CCR unit operation and monitoring are described further in the Pawnee Station Groundwater Monitoring Certification (HDR, 2017a).

2.1 Hydrogeology

The stratigraphic units present at the Station include bedrock of the Pierre Shale, overlain by residual soil/transition zone bedrock derived from in-situ weathering of the Pierre Shale, which is also referred to as sandy silt deposits. The residual soil is overlain by dune sand deposits at the surface. The residual soil unit is laterally continuous and varies in thickness from approximately 8 to 45 feet. The transition zone bedrock is typically less than 5 feet (1.5 m) thick and consists of friable, blocky siltstone. The transition zone bedrock is confined below by competent bedrock of the Pierre Shale. Dune sand overlies the residual soil and ranges in thickness from 8 to 70 feet (2.4 to 21 m). The thickest deposit of dune sand is south of the landfill.

Saturated conditions occur at the base of the residual soil within the transition zone bedrock. The groundwater in this zone is perched on top of competent Pierre Shale, which acts as a confining layer. Regional groundwater flow is generally to the northeast across the site towards the South Platte River. The landfill is positioned on the eastern flank of a bedrock high that trends northwest to southeast resulting in a flow away from the landfill to the east and northeast.

Six monitoring wells located around the perimeter of the landfill are monitored for compliance with the CCR Rule. Monitoring wells PNMW-2B, PNMW-13, PNMW-14 are upgradient of the landfill, and wells PNMW-1B, PNMW-15, and PNMW-16 are located downgradient of the landfill as described in the Pawnee Station Groundwater Monitoring Certification (HDR, 2017a). However, only the upgradient wells are discussed in this report, for development of BTVs. The well locations are shown on **Figure 2**. Further hydrogeologic characterization of the site is provided in the Pawnee Station Groundwater Monitoring Certification (HDR, 2017a).

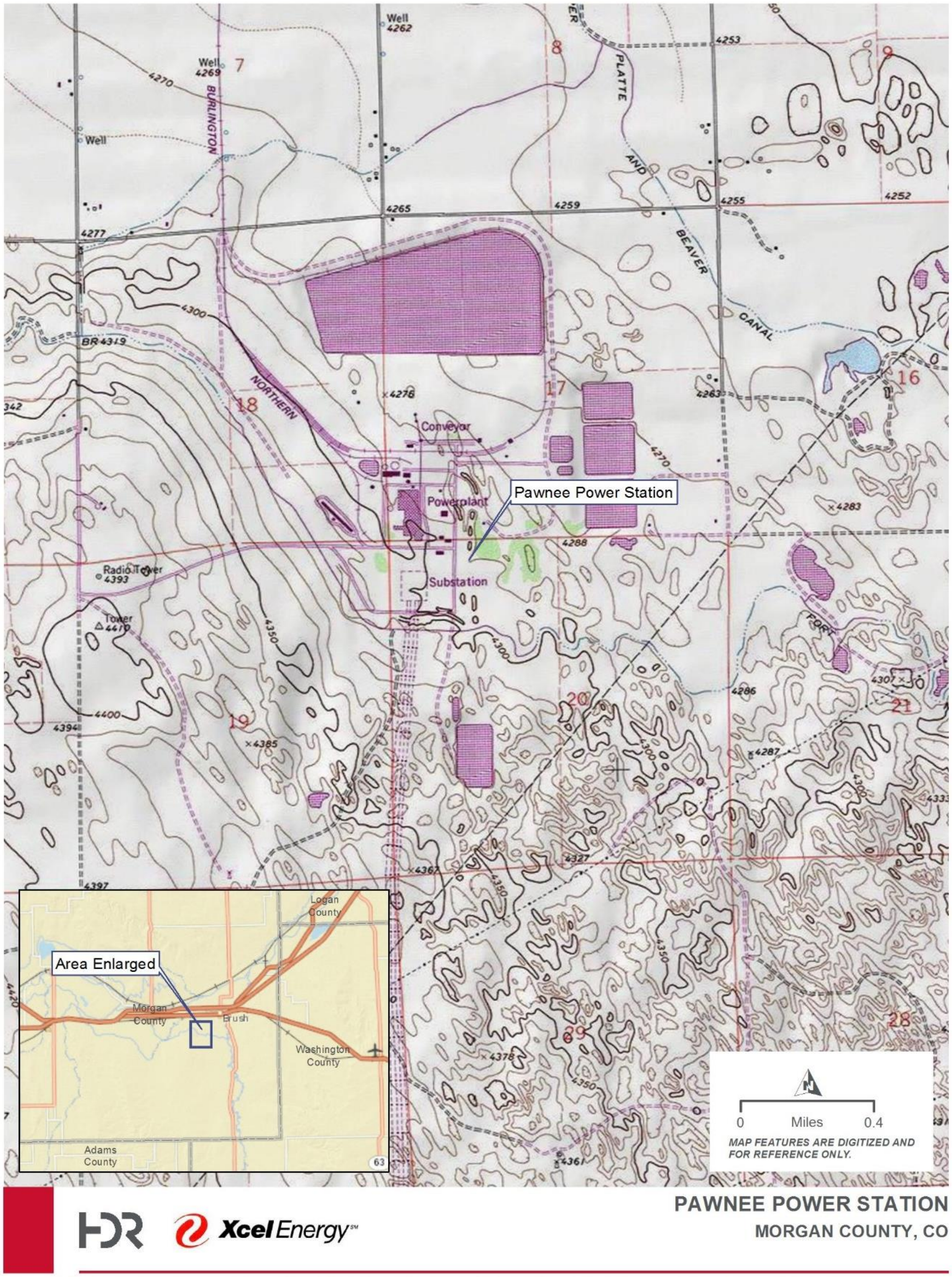

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Figure 1. Vicinity map for Pawnee Station.

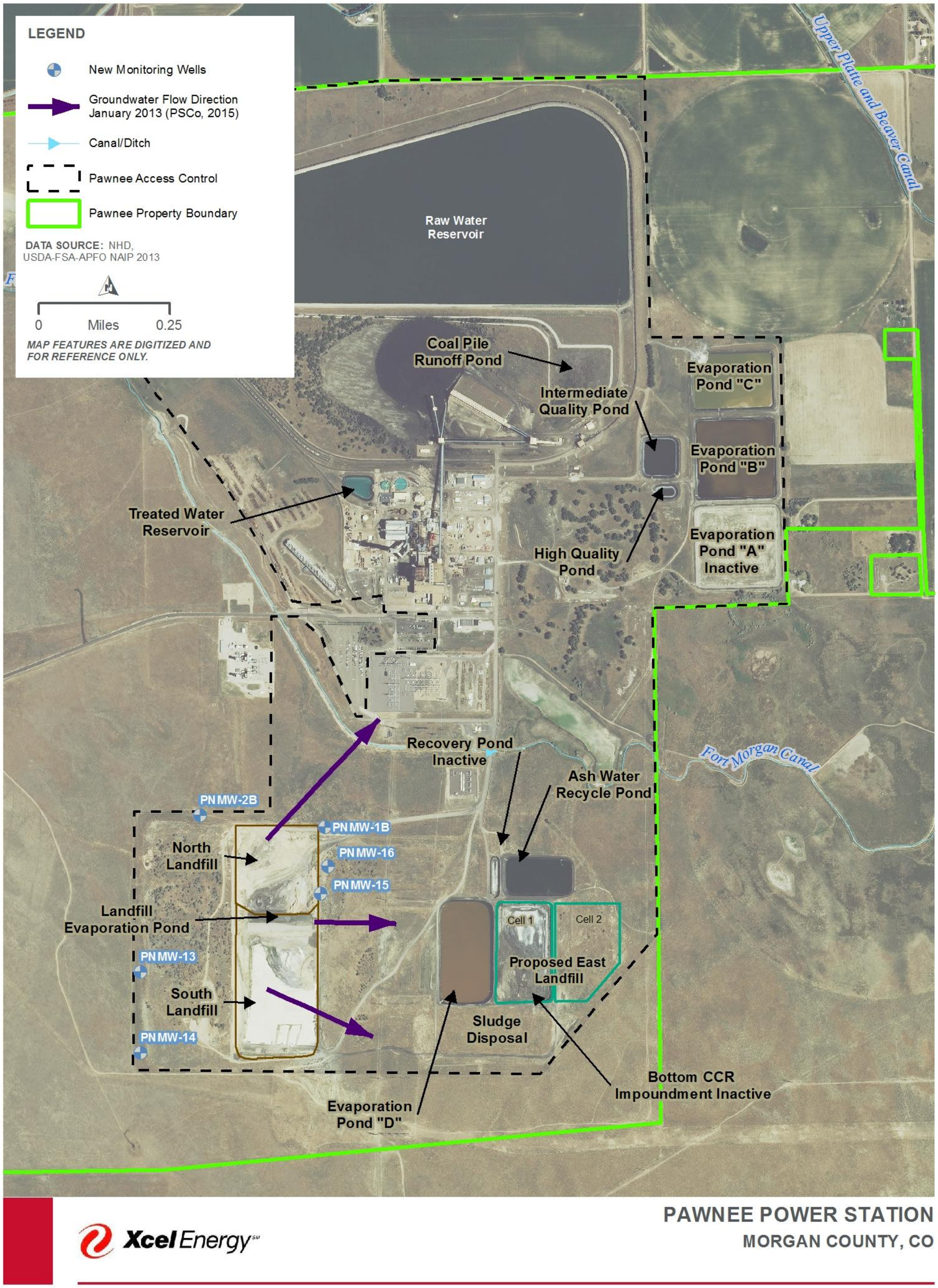


Figure 2. Pawnee Station – CCR unit and monitoring well location map.

3.0 Monitoring Methods

3.1 Monitoring Frequency

As stipulated in the CCR Rule, eight background groundwater sampling events were completed before October 17, 2017. The CCR groundwater sampling program for Pawnee Station was conducted on a monthly basis between February and September 2017. This Background Memorandum presents the results of the eight events, completed on the following dates:

- ✓ February 21-22, 2017
- ✓ March 22-23, 2017
- ✓ April 18-19, 2017
- ✓ May 23-24, 2017
- ✓ June 13-15, 2017
- ✓ July 10-12, 2017
- ✓ August 22-24, 2017
- ✓ September 19-27, 2017

3.2 Water Levels and Sample Collection

Water levels were recorded for each of the six monitoring wells, and groundwater quality samples were collected from each of the three upgradient monitoring wells. Groundwater sample collection protocols followed the Groundwater Sample Collection Standard Operating Procedure (SOP) (HDR, 2015). The water samples were collected using a submersible Geotech SS Geosub pump, and the pump and hose were decontaminated between wells following protocols outlined in the Sampling SOP. Water samples were delivered under Chain of Custody to Test America in Denver, Colorado.

3.3 Analytical Testing

Groundwater samples were analyzed for the parameters shown in **Table 1**, which include all of the parameters in Appendices III and IV of CCR Rule Part 257. In addition to the parameters listed in Table 1, each sample was also analyzed for Total Suspended Solids (TSS).

Table 1. Groundwater quality parameters

Appendix III Constituents for Detection Monitoring	**Appendix IV Constituents for Assessment Monitoring**
Boron	Antimony
Calcium	Arsenic
Chloride	Barium
Fluoride	Beryllium
pH	Cadmium
Sulfate	Chromium
Total Dissolved Solids (TDS)	Cobalt
Additional Parameters	Fluoride
Total Suspended Solids (TSS)	Lead
	Lithium
	Mercury
	Molybdenum
	Selenium
	Thallium
	Radium-226 and -228 combined

4.0 Data Validation and Data Management

All data validation was performed per the Data Management and Statistical Procedures Plan for Compliance with the Coal Combustion Residuals Rule document (HDR, 2018). This evaluation, completed by the HDR Project Chemist, included a review of field Quality Control (QC), lab QC, and analytical samples, along with calibration information. QC analyses on Laboratory Control Samples (LCS), Matrix Spike/Duplicate (MS/MSD) samples, and Field Duplicate samples were performed per required quota.

Data management for all sampling events follows the protocol detailed in the Data Management and Statistical Procedures Plan (HDR, 2018). The Project Data Manager inputs data from field data forms into an Excel database, specifically recording static water level data, field parameter values, and general pertinent field observations. The Project Database Manager acquires the electronic field database from the Data Manager and the laboratory electronic data deliverable (EDD) files after receiving notification from the Data Validator that the data validation process is complete. Review includes ensuring that the EDD files conform to the required structure and language of the database. Certain fields within the EDD files have regulated language that must correspond to the lookup/valid value reference tables contained in the database, which helps to ensure that data are coded and stored uniformly within the database; this is known as parity. Adjustments are made, as necessary, to ensure that all samples and data flags are properly set in the EDD. Once review is complete and the EDD passes a final check using an EQuIS Data Processor program, the files are uploaded into an EQuIS database for the project where data can be provided to the Statistician for use in ProUCL. Ultimately the database is exported to Manages, Public Service Company of Colorado (PSCo)’s chosen database, and delivered to the PSCo Project Manager.

5.0 Water Levels and Flow Direction

Water levels were measured in the 6 site monitoring wells between February and September 2017. Water levels are provided in **Table 2** and displayed graphically in **Figure 3**. Groundwater contours are provided for February 2017 only (Appendix A) to illustrate the groundwater wells chosen for development of BTVs for the site are located upgradient of the CCR unit. Groundwater flow under the landfill between February 2017 and September 2017 was generally east northeast. The contour map (**Appendix A**) confirms that monitoring wells PNMW-2B, PNMW-13, and PNMW-14 are located upgradient of the landfill. Additional groundwater contour maps will be developed for the other monitoring events and included in Annual Groundwater Monitoring Reports.

Table 2. Groundwater elevations in monitoring wells at Pawnee Station.

Site	Well ID	Groundwater Elevation (ft amsl)								Casing Elevation (ft amsl)
		February 2017	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017	September 2017	
Pawnee	PNMW-1B	4311.48	4311.50	4311.26	4311.07	4311.07	4310.70	4309.62	4309.751	4332.23
Pawnee	PNMW-2B	4321.74	4321.47	4321.35	4321.26	4321.21	4321.09	4320.96	4320.923	4359.76
Pawnee	PNMW-13	4335.17	4334.55	4334.30	4333.94	4335.91	4343.78	4333.40	4333.372	4378.11
Pawnee	PNMW-14	4316.25	4316.20	4316.12	4316.02	4315.61	4315.87	4315.70	4315.608	4376.96
Pawnee	PNMW-15	4312.67	4312.79	4312.88	4312.81	4312.77	4312.38	4312.21	4311.908	4341.568
Pawnee	PNMW-16	4307.14	4307.25	4307.47	4307.47	4307.51	4306.85	4306.27	4305.899	4322.729

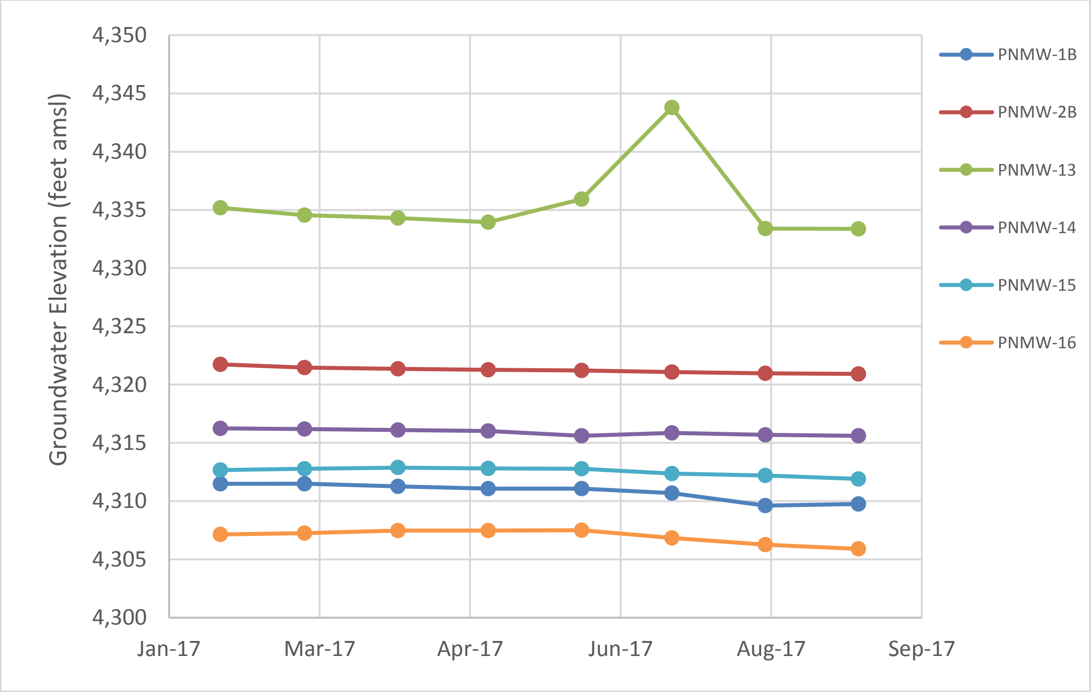


Figure 3. Groundwater elevations at wells around the landfill observed each month.

6.0 Evaluation of Background Water Quality Data

6.1 Constituents

Water quality results from the eight background sample events for upgradient wells PNMW-2B, PNMW-13 and PNMW-14 will be provided in the Annual Groundwater Monitoring and Corrective Action Report. The statistical analyses detailed in the below sections pertain to samples collected from upgradient monitoring wells PNMW-2B, PNMW-13, and PNMW-14 between February 21, 2017 and September 27, 2017.

Eight groundwater sampling events occurred between February 21, 2017 and September 27, 2017 and samples were analyzed for the constituents listed in Appendix III and IV of the CCR Rule and for certain physical parameters. Only non-filtered Appendix III and IV sample results were utilized for the statistical analysis. Some constituents (total suspended solids, and temperature), not listed on Appendix III or IV, were analyzed to help provide context to observed patterns for Appendix III and IV constituents. For example, their results may determine if there are possible conditions that might impact the reliability of the data. Reporting units, number of observations, number of non-detects (NDs), and percentage of NDs below detection limits (BDL) for each constituent are listed in **Table 3**.

Statistical analysis was performed and the data was analyzed for outliers, data distribution, and trends.

Table 3. Preliminary Data Analysis

Constituent	CAS Number	Units	No. Observations	No. NDs	% NDs
Appendix III Constituents					
Boron	7440-42-8	mg/l	24	0	0%
Calcium	7440-70-2	mg/l	24	0	0%
Chloride (as Cl)	16887-00-6	mg/l	24	0	0%
Fluoride	16984-48-8	mg/l	24	0	0%
pH (lab)	PH	su	24	0	0%
Sulfate (as SO_4)	14808-79-8	mg/l	24	0	0%
Total Dissolved Solids	TDS	mg/l	24	0	0%
Appendix IV Constituents					
Antimony	7440-36-0	mg/l	24	15	63%
Arsenic	7440-38-2	mg/l	24	4	17%
Barium	7440-39-3	mg/l	24	0	0%
Beryllium	7440-41-7	mg/l	24	16	67%
Cadmium	7440-43-9	mg/l	24	21	88%
Chromium, Total	7440-47-3	mg/l	24	2	8%
Cobalt	7440-48-4	mg/l	24	7	29%
Lead	7439-92-1	mg/l	24	9	38%
Lithium	7439-93-2	mg/l	24	0	0%
Mercury	7439-97-6	mg/l	24	24	100%
Molybdenum	7439-98-7	mg/l	24	0	0%
Selenium	7782-49-2	mg/l	24	1	4%
Thallium	7440-28-0	mg/l	24	22	92%
Radium-226-228		pci/l	24	4	17%
Additional Parameters					
Total Suspended Solids	TSS	mg/l	23	3	13%

6.2 Outliers

Outliers are values that are not representative of the population from which they are sampled. The data set was screened for outliers using the Dixon's outlier test which is suitable for data sets containing less than 25 samples. The outlier test was conducted using a significance of 1 percent. For those constituents which had NDs, the NDs were removed prior to testing for outliers. Statistical outliers are listed in **Table 4**.

Table 4. Dixon's Outlier Test Results

Constituent	Unit	Mean	Standard Deviation	No. of Observation	No. of NDs	Outliers - Tests conducted at the 1% level of significance
Barium	mg/l	0.169	0.107	24	0	0.500
Molybdenum	mg/l	0.00918	0.00986	24	0	0.0450
Arsenic	mg/l	0.00379	0.00536	24	4	0.0220
Cobalt	mg/l	0.00548	0.00862	24	7	0.0320
Lead	mg/l	0.00933	0.0129	24	9	0.0460
Total Suspended Solids	mg/l	626	1,440	23	3	5,500

Statistical outliers were identified for five Appendix IV constituents (arsenic, barium, cobalt, lead, and molybdenum), and total suspended solids. Quality control conducted on the sampling protocols and laboratory results did not indicate reasons for the noted concentration of the outliers on the dates they were sampled. No unusual weather or anthropogenic activity occurred which could explain the higher concentrations. As the sample size is very small from a statistical perspective, the variability in the concentrations of these constituents will change as additional samples are obtained. The sample's variability for each constituent will approach the true underlying variability of concentrations in groundwater in the vicinity of the upgradient wells with the increasing number of samples. Values considered as potential outliers when only eight samples are available may no longer be considered outliers after 20 or more samples per upgradient monitoring well have been obtained. For the purpose of estimating upgradient field conditions, all values will be used. The distributional patterns for these constituents and physical parameters will continue to be monitored as sampling events are added.

6.3 Data Distribution

Groundwater data was fitted to known distribution models using Goodness-of-Fit (GOF) tests incorporated in ProUCL. For data sets comprised of 50 or fewer samples, ProUCL's GOF module incorporates the Shapiro-Wilk to determine normal or lognormal distribution and Anderson-Darling to determine gamma distribution. Note that ProUCL does not provide GOF results for data sets with less than three detected values due to insufficient data. For purposes of estimating background concentration levels, these data sets will be treated under nonparametric distribution assumptions with the maximum detected value chosen to represent the background concentration levels until more data can be collected.

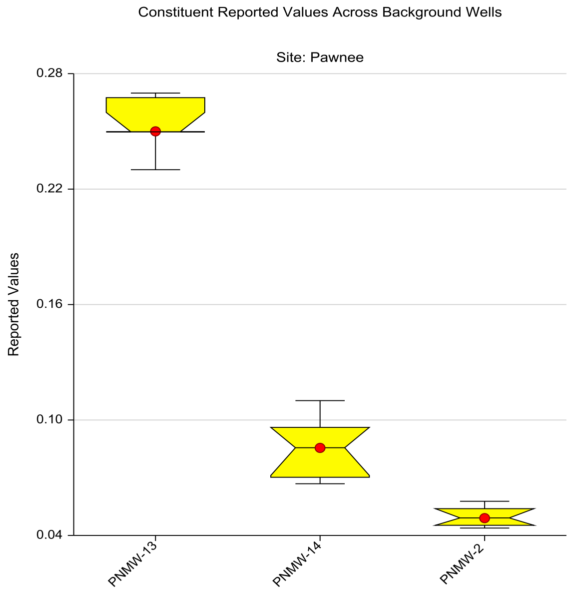
Boron, chloride (as Cl), fluoride, pH, sulfate (as SO_4), arsenic, total chromium, and molybdenum were found to have a nonparametric fit to their respective data sets. Mercury and thallium, due to less than three detected values, will be treated under nonparametric distribution assumptions. Additional sampling rounds are needed in order to determine if these constituents' data sets are better described using parametric distributions such as normal, lognormal, or gamma. All remaining constituents have a parametric distribution.

6.4 Spatial Variability

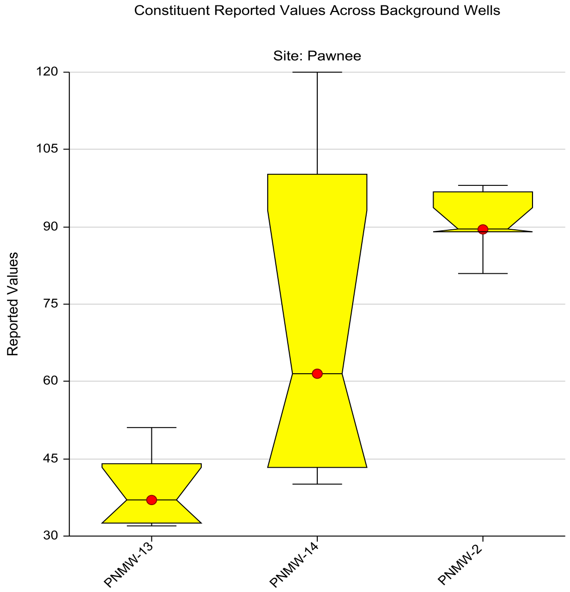
Three background wells (PNMW-2B, PNMW-13, and PNMW-14) are present at the site and were installed to represent the quality of groundwater upgradient of the CCR unit. A key assumption when calculating background concentrations using multiple background wells is that when pooled, the constituent concentrations measured at the background wells over time represent an estimate of overall well field conditions. This assumption implies the variability of the concentrations per well is comparable and the values are independent of each other. A way to test this assumption is to study the spatial variability of observations across the wells. Spatial variability exists when the distribution or pattern of concentrations changes between well locations, either from natural or anthropogenic factors. To evaluate the potential for spatial variability in background wells, side-by-side box plots can be used for each constituent and parameter at each well. If the variation is significant from a visual perspective, parametric and nonparametric analysis of variance (ANOVA) tests can be used to flag differences in mean or median levels to corroborate the visual cues. The project team can then investigate further and determine if the variation is from natural or anthropogenic sources.

Box plot results of the seven Appendix III constituents are shown in **Figure 4**. Visually, the box plots imply spatial variability is present among background wells PNMW-2B, PNMW-13, and PNMW-14. Results of ANOVA tests at the 5 percent level of significance for differences in sample means and medians between the wells were statistically significant for Appendix III constituents.

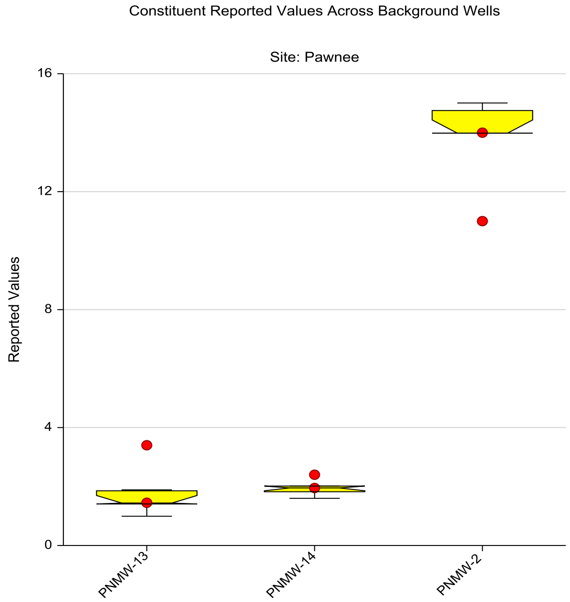
Given the small sample sizes and the range of constituent concentrations at the three background wells, the statistically-identified variability in concentrations for each Appendix III constituent are preliminary and HDR finds the range of concentrations acceptable for the purpose of calculating background concentrations. The subsequent analyses to check for autocorrelation, seasonality and trends are based on the pooled set of observations. The distributional patterns for constituents at the background wells, however, will continue to be monitored for spatial variability and should be re-evaluated as the data set grows.



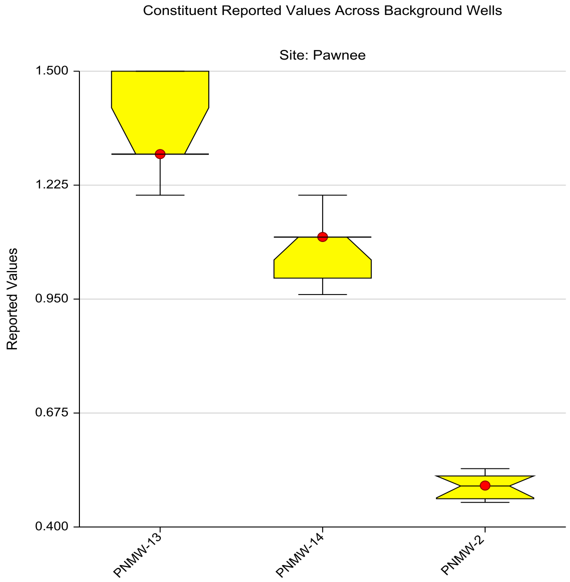
(a) Boron (mg/L)



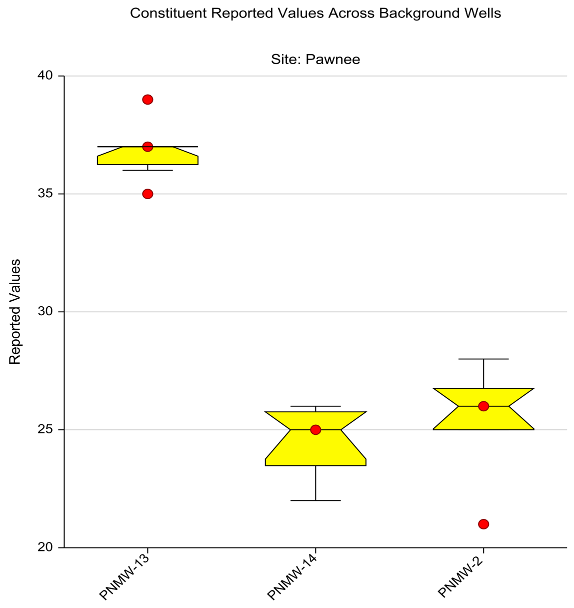
(b) Calcium (mg/L)



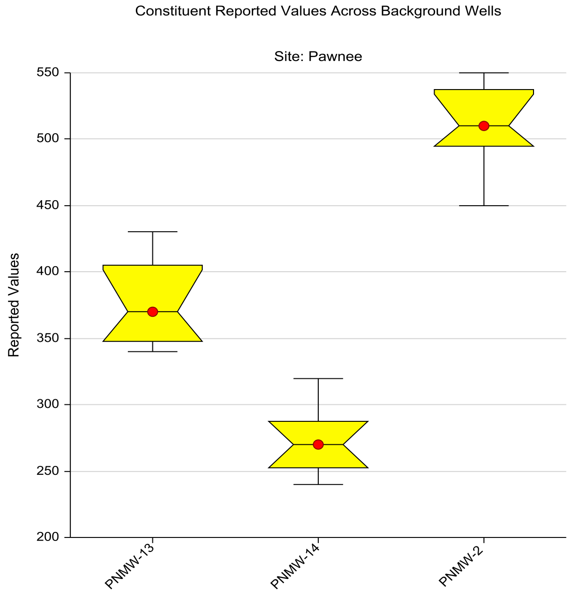
(c) Chloride (mg/L)



(d) Fluoride (mg/L)



(e) Sulfate (mg/L)



(f) Total Dissolved Solids (mg/L)

Figure 4. Side-by-Side Box Plots of (a) Boron, (b) Calcium, (c) Chloride, (d) Fluoride, (e) Sulfate and (f) Total Dissolved Solids.

6.5 Serial Correlation

Sources for serial correlation in groundwater samples can be due to temporal effects (i.e., autocorrelation) or seasonal effects (i.e., seasonality). Part §257.93(g)(6) of the CCR Rule requires that if necessary, the statistical method must include procedures to control or correct for seasonal as well as temporal correlation in the data.

6.5.1 Autocorrelation

Autocorrelation occurs when measurements collected at different points in time correlate with one another. A minimum of at least 50 samples are recommended to test for autocorrelation. Constituents will be analyzed for autocorrelation as additional sampling is conducted in order to determine if samples are autocorrelated.

6.5.2 Seasonality

Constituents in groundwater at background well locations may experience predictable recurring increases and decreases in concentrations, termed seasonality. The small data set, 8 samples total (2 winter, 3 spring, 2 summer, 1 fall), does not allow for accurate statistical analysis of seasonality. A minimum of 8 samples per season (winter, spring, summer, and fall) is required to test for seasonal differences but at least 20 samples per season are recommended in order to deseasonalize the data. Constituents will be analyzed for seasonality using the Kruskall-Wallis, ANOVA and Log ANOVA tests as additional sampling is conducted in order to determine if samples are affected by seasonality.

6.6 Trends

A key assumption regarding background is constituent concentrations in groundwater should demonstrate stationary conditions through time, free of any trends. Constituents which follow a parametric distribution were analyzed for trends within the data set using a Maximum Likelihood Estimate (MLE) regression. The Mann-Kendall was used to analyze linear trends within data sets that do not adhere to a specific distribution model (i.e., nonparametric).

For those that showed statistically significant upwards or downwards trends, trends were checked against results using piecewise linear-linear and a piecewise linear-linear-linear analyses. The linear-linear regression assumes and identifies one structural break within the time series, and the linear-linear-linear regression assumes two structural breaks within the time series. Piecewise regression models are not able to account for NDs within the data sets and are typically used for data sets containing over 20 observations. For the purpose of this analysis, the piecewise regression results are used as visual aids to better understand the statistically significant trends identified when using either the MLE or Mann-Kendall trend tests.

The MLE can be applied to data sets that can be fitted to a specific distribution model, do not demonstrate seasonality and contain NDs. MLE results for those constituents or physical parameters with sufficient number of detected values are depicted in **Table 5**.

Table 5. Maximum Likelihood Estimate (MLE) regression							
Parameter	**Unit**	**N**	**No. BDL**	**% BDL**	**Slope**	**P-value**	**Trend**
Appendix III Constituents							
Calcium	mg/l	24	0	0%	0.0015	0.2	↔
Total Dissolved Solids	mg/l	24	0	0%	0.00057	0.5	↔
Appendix IV Constituents							
Barium	mg/l	24	0	0%	0.0021	0.2	↔
Cobalt	mg/l	24	7	29%	0.0041	0.5	↔
Lead	mg/l	24	9	38%	0.0012	0.9	↔
Lithium	mg/l	24	0	0%	0.00055	0.5	↔
Radium-226/228	pci/l	24	4	17%	0.0021	0.3	↔
Selenium	mg/l	24	1	4%	-0.00023	0.9	↔
Physical Parameters							
Total Suspended Solids	mg/l	23	3	13%	0.0072	0.5	↔

The Mann-Kendall test is suitable for data series with no discernable distributions, no seasonality, and only one value for the method detection limit (MDL). Mann-Kendall results for those constituents or physical parameters with sufficient number of detected values are depicted in **Table 6**.

Table 6. Mann-Kendall							
Parameter	**Unit**	**N**	**No. BDL**	**% BDL**	**Standard Deviation**	**P-value**	**Trend**
Appendix III Constituents							
Boron	mg/l	24	0	0%	0.0917	0.4	↔
Chloride	mg/l	24	0	0%	5.86	0.3	↔
Fluoride	mg/l	24	0	0%	0.376	0.2	↔
pH	su	24	0	0%	0.102	0.02	↑
Sulfate (as SO_4)	mg/l	24	0	0%	5.90	0.3	↔
Appendix IV Constituents							
Arsenic	mg/l	24	4	17%	0.00501	0.2	↔
Chromium	mg/l	24	2	8%	0.0882	0.3	↔
Molybdenum	mg/l	24	0	0%	0.00986	0.2	↔

The Mann-Kendall for pH depicts an increasing trend. Based on lack of correlation between Mann-Kendal and piecewise trend tests, condensed sample period (7 months), and condensed range of data, the predicted Mann-Kendall trend is considered preliminary and requires further statistical analysis with a larger data set.

6.7 Summary of Statistical Analysis

A separate Data Management and Statistical Procedures Plan (HDR, 2018) has been prepared, which presents the data management, data validation, and statistical procedures for evaluating data to select statistical method(s) required for evaluating groundwater monitoring data, as required by the CCR Rule. Groundwater monitoring data from the detection monitoring event has been evaluated in accordance with the procedures presented in the Statistical Procedures Plan.

Based on the small sample size and condensed sample period, additional sampling is necessary in order to determine the validity of outliers, whether parametric or nonparametric distributions best explain the data sets, and if samples are affected by trends. A summary of statistical results by constituent is depicted in **Table 7**.

Table 7. Summary of Statistical Results by Constituent

Parameter	Outliers	Nonparametric Data Distribution	Trends
Boron		✓	
Chloride (as Cl)		✓	
Fluoride		✓	
pH (lab)		✓	✓
Sulfate (as SO_4)		✓	
Arsenic	✓	✓	
Barium	✓		
Beryllium			
Cadmium			
Chromium, Total		✓	
Cobalt	✓		
Lead	✓		
Molybdenum	✓	✓	
Total Suspended Solids	✓		

✓Constituent was flagged during statistical analysis

* Statistical tests with full datasets and datasets with NDs removed are summarized

6.8 Background Threshold Values

For the purpose of estimating background threshold values (BTVs) to represent background concentration levels and for future use in evaluating whether samples selected from downgradient wells exhibit statistically significant increases (SSIs) during detection monitoring, all eight samples per constituent from PNMW-13, PNMW-14, and PNMW-2B were used.

The BTVs for the Pawnee site are the upper prediction limit (UPL) values from the background data. Upper Prediction Limits are one of the statistical methods specified under 257.93(f)(3). The details as to which UPL formula was used per constituent are provided in the Data Management and Statistical Procedures Plan (HDR, 2018). The test significance level per constituent has been estimated such that the cumulative false positive rate over all constituent/well pair comparisons is approximately 10 percent. COIs sampled from the downgradient wells during the detection monitoring round are compared to their respective BTVs. If the concentration from a COI is higher than its BTV, then the sample can be considered an SSI. Note that for pH, both the UPL and the lower prediction limit (LPL) are of interest as pH values outside the prediction interval at the downgradient wells can be considered statistically significant.

7.0 References

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HDR, 2018. Data Management and Statistical Procedures Plan for Compliance with the Coal Combustion Residuals Rule. January 15, 2018.

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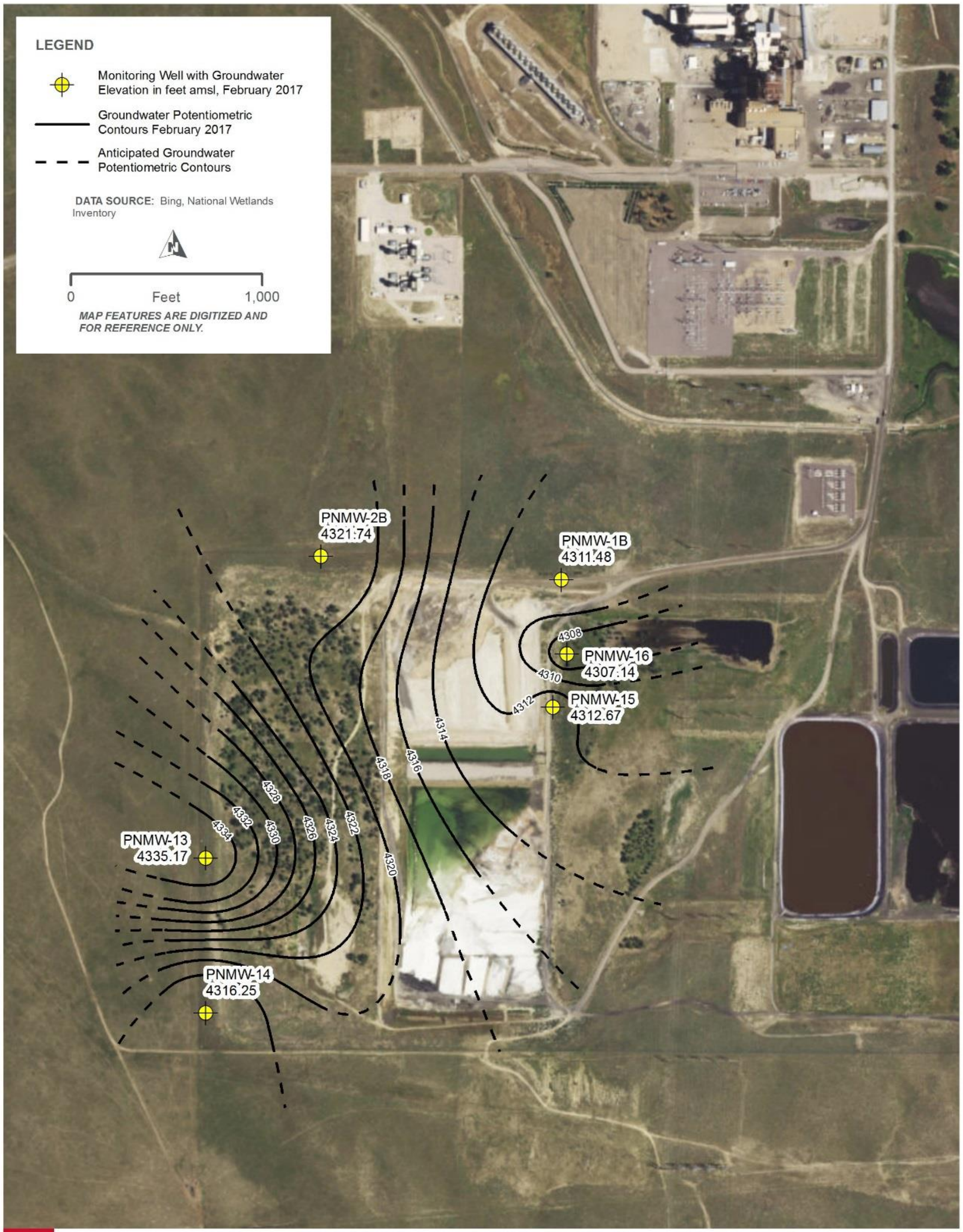
Appendix A

Groundwater Potentiometric Map



Xcel Energy℠

PAWNEE POWER STATION

MORGAN COUNTY, CO

PATH: J:\2015\15-115_XCEL_CORE_SAMPLING_TESTING_(WALTHER)\MAP_DOCS\GROUNDWATER_CONTROURS\PAWNEE_POWER_STATION_PORTAIT_GW_WELL_CERT_GWELEV201702.MXD - USER: GMILLERF - DATE: 10/20/2017