Schnabel ENGINEERING
T 303.651.1468 / F 303.651.1469
600 S. Airport Road, Suite A-205 / Longmont, CO 80503 schnabel-eng.com

July 14, 2025

Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

Subject: **Central Reservoir Groundwater Monitoring Plan (M-2012-045)**
DRMS Preliminary Adequacy Review – Response to Comments
Central Reservoir, Pueblo, Colorado; Schnabel Project No. 20C26014.06

Dear Colorado Division of Reclamation, Mining and Safety:

SCHNABEL ENGINEERING, LLC (Schnabel) is pleased to provide responses to the comments identified by the Colorado Division of Reclamation, Mining, and Safety (DRMS) on the groundwater monitoring plan for the Central Reservoir near Pueblo, Colorado. We have endeavored to address comments, correct deficiencies, and provide supplemental information identified by the preliminary adequacy review delivered to Jodi Schreiber of Fremont Paving & Redi-Mix, Inc. on March 31, 2025.

1. **Background Information**

DRMS Comment #1: The maps submitted with the proposed GWMP do not meet the requirements outlined in the Guidance Document, 1.1 Site Description. All maps must be prepared and signed by a registered land surveyor, professional engineer, or other qualified person. Resubmit the maps to include the qualified preparer's signature on each one.

Schnabel Response: The signature of the professional engineer that authored this letter and oversaw the development of the GWMP has been added to the figures.

DRMS Comment #2: In the "Background Information" section of the proposed GWMP, it is stated that the material within the slurry wall will be removed to bedrock, identified as the Pierre Shale formation, and situated at a depth of about 48 feet. In the "Central Dam and Reservoir" section, the proposed reservoir is stated to have a maximum depth of 65 feet. Provide more information about the underlying Pierre Shale and the embankment walls for the proposed reservoir to account for the 17-foot discrepancy described.

Schnabel Response: Language was added to the GWMP, Section "Central Dam and Reservoir". Material for the slurry wall will be removed down to bedrock, approximately to a

depth of 48 feet and an earthen embankment will be constructed on top of the slurry wall accounting for the 17-foot discrepancy noted by DRMS.

DRMS Comment #3: Provide information about recharge zones for the Arkansas River Valley alluvial aquifer in the vicinity of the Central Reservoir and the permitted area.

Schnabel Response: See attached Appendix A – Central Reservoir Groundwater Modeling Technical Memorandum

DRMS Comment #4: The proposed monitoring locations submitted in the GWMP of CR-24 to the northwest of the proposed slurry wall, CR-6 to the southwest of the proposed slurry wall, and MH-9 to the southeast of the proposed slurry wall, all of which have already been constructed, appear to be adequate. At this time, it is unclear if the depth of well MH-9 is sufficient. The depth of MH-9 appears to be constructed depth of 42.5 feet which may not be adequate for the purpose of groundwater monitoring. Provide more information about the depth to the Pierre Shale for monitoring well MH-9. Additionally, provide the construction diagrams for each proposed monitoring well, CR-24, CR-6, and MH-9.

Schnabel Response: During drilling of MH-9, the on-site geologist identified claystone bedrock contact of the Pierre Shale formation at a depth of 42.5 feet below ground surface. The well screen in MH-9 was constructed from depths 22 feet to 44 feet below ground surface and the groundwater table was measured at 15.5 feet below ground surface during drilling. The summary log and well construction report for CR 24 and CR-6 are included in Attachment 1, Figure 3.2 and Attachment 2.

DRMS Comment #5: It is stated in the proposed GWMP in the subsection titled “Establishing Baseline Groundwater Quality” that water quality samples will be collected quarterly for five quarters, or a total of five times. According to the Guidance Document, section 1.2 Baseline Groundwater Characterization, to have baseline established, data from five consecutive quarters will be required. Revise the statement in this section to reflect the requirement of five sequential quarters of water quantity and quality data will be obtained to establish baseline groundwater characteristics.

Schnabel Response: The statement provided in subsection “Establishing Baseline Groundwater Quality” was revised to reflect water quality samples will be collected for five consecutive quarters.

2. **Predicted Impacts to Hydrologic Balance**

DRMS Comment #6: The described predicted impacts to the hydrologic balance of the area provided in the proposed GWMP, under the subsection titled “Potential Impacts of Mining on Groundwater Quantity” states that a few feet of mounding on the west side and shadowing on the east side may result after the construction of the proposed slurry walls. The form of the proposed slurry walls shows that the north side is not linear and will be constructed with a curve in the center which appears to be approximately normal to the groundwater directional flow. Provide more information about how this form will affect the hydrologic balance and give more details about the anticipated range of mounding

and shadowing that can be expected after slurry wall installation. Include information about the modeling program used that are outlined in Section 1.2.2 Baseline Groundwater Quantity of the Guidance Document.

Schnabel Response: See attached Appendix A – Central Reservoir Groundwater Modeling Technical Memorandum

DRMS Comment #7: The Guidance Document requires that discussions on impacts to the groundwater quality include water quality parameters that may be elevated as a result of the proposed operation. The submitted GWMP states that an adverse effect to the surrounding areas is not anticipated. Provide details of all potential impacts to the groundwater quality to the area, adverse or otherwise. The Division feels that the residence time of groundwater will be affected due to anticipated mounding and shadowing and the temporal change has the potential to affect the groundwater quality. Provide comments about potential water quality impacts that could result from these anticipated temporal changes in addition to any modeling results used to make the predictions. Include information about the modeling program used that are outlined in section 1.2.2 Baseline Groundwater Quantity of the Guidance Document.

Schnabel Response: See attached Appendix A – Central Reservoir Groundwater Modeling Technical Memorandum

DRMS Comment #8: The location of the proposed slurry wall is adjacent to the St. Barbara Sand and Gravel Mine (Permit No. M-2004-013), which has an approved slurry wall. Provide a numerical and/or graphical model depicting the anticipated impacts to the hydrologic balance which takes into consideration the slurry wall on the St. Barabara site. Again, information about the model(s) used for developing the potential impacts should be provided in accordance with section 1.2.2 Baseline Groundwater Quantity of the Guidance Document.

Schnabel Response: See attached Appendix A – Central Reservoir Groundwater Modeling Technical Memorandum

DRMS Comment #9: The proposed GWMP does not include a mitigation plan or triggering events for a mitigation plan to be implemented. Develop a mitigation plan for the site with details on events that would trigger the initiation of said mitigation plan. Provide sufficient details of the steps and actions that will be taken in order to ensure a timely and effective response if necessary.

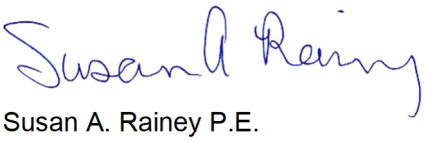
Schnabel Response: As mentioned in the attached Appendix A – Central Reservoir Groundwater Modeling Technical Memorandum, wells external to the slurry wall will be monitored approximately monthly for changes in depth to groundwater. If the groundwater rises to within three feet of the surface an underdrain will be installed. An underdrain is not anticipated to be needed because groundwater levels are currently approximately 23 feet below ground surface. Our model shows a maximum anticipated rise in groundwater of three feet.

We have endeavored to prepare this document in accordance with generally accepted geotechnical engineering practice and make no warranties, either express or implied, as to the professional advice provided under the terms of our agreement and included in this report.

We appreciate the opportunity to be of service for this project. Please contact me if clarification is needed for any aspect of this report.

Sincerely,

SCHNABEL ENGINEERING, LLC



Susan A. Rainey P.E.
Senior Associate Engineer

AB: SAR

Schnabel ENGINEERING
T 303.651.1468 / F 303.651.1469
600 S. Airport Road, Suite A-205 / Longmont, CO 80503 schnabel-eng.com

July 14, 2025

Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

Subject: **Central Reservoir Groundwater Monitoring Plan (M-2012-045)**
Pre-Baseline Analysis and Proposed Baseline Monitoring
Central Reservoir, Pueblo, Colorado; Schnabel Project No. 20C26014.06

Dear Colorado Division of Reclamation, Mining and Safety:

SCHNABEL ENGINEERING, LLC is pleased to provide this proposed baseline monitoring to satisfy the requirement of a groundwater monitoring plan for the Central Reservoir site located near Pueblo, Colorado. The groundwater monitoring plan is submitted to satisfy the Colorado Division of Reclamation, Mining and Safety (DRMS) requirements in advance of construction of a slurry wall and Phase 1 Dam Embankment at Central Reservoir and subsequent mining of materials from the area within the slurry wall.

The groundwater monitoring plan described herein includes:

- A description of the site
- An inventory of existing wells
- A pre-baseline groundwater characterization
- A discussion of the impact of proposed mining operations on groundwater quality and quantity
- Proposed monitoring well locations and points of compliance
- Proposed monitoring methodologies

INTRODUCTION

The Groundwater Monitoring: Sampling and Analysis Plan Guidance, Construction Materials and Hard Rock Sites, published in September 2023, by DRMS (“The DRMS Guidance”) provides the necessary documentation to support a standard groundwater sampling plan for a site that could impact water quality or quantity during mining. Because future mining operations at Central Reservoir may impact the alluvial aquifer, a groundwater monitoring plan is required by DRMS. This includes impacts to both water quantity and water quality as DRMS has the authority to enforce Water Quality Control Commission (WQCC) water quality standards. This document presents a detailed description of the site, provides a pre-baseline groundwater characterization, proposes monitoring well locations and points of compliance, and proposes methodology for establishing a pre-mining baseline at Central Reservoir.

BACKGROUND INFORMATION

The Central Reservoir site is located approximately 15 miles east of Pueblo, Colorado, and approximately 3,900 feet north of the Arkansas River. The Central Reservoir land is owned by Triview Metropolitan District (Triview), with the site, per the Pueblo Assessor's website, being approximately 286 acres. The site is completely within Section 36, Township 20 South, Range 63 West of the 6th P.M. The site is bounded by the Santa Barbara mine to the south, U. S. Highway 50 to the north, and Nyberg Road to the west. The Excelsior Ditch, which runs west to east, crosses the property immediately south of the highway. In general, the surrounding topography slopes in the direction of the Arkansas River from the north northwest towards the south-southeast.

Future plans for the site include construction of a slurry wall, mining the area within the slurry wall, and construction of an embankment as steps to complete Central Reservoir. Proposed extraction of the materials within the slurry wall, which will be to bedrock, is anticipated to be about 48 feet and would encounter alluvial groundwater if not for the slurry wall. Groundwater is estimated to be approximately 20 to 30 feet below ground surface.

DRMS is requiring a groundwater monitoring plan be supplied and approved in advance of any construction on Central Reservoir. Triview is interested in moving ahead with slurry wall construction as soon as possible. This document will serve as a groundwater monitoring plan, with the understanding that complete pre-mining baseline results and final points of compliance will be submitted at a later date. This document is not accompanying a revised permit and is a stand-alone document, with future mining permit forms being able to reference and use this document to ensure compliance with DRMS regulations.

Permit History

The Central Reservoir is a portion of the Stonewall Springs Quarry Pit, M2012-045. This is currently permitted through Fremont Paving and Redi Mix, Inc. Mining has not yet begun on any portion of this site. An amendment to the mining permit will be submitted prior to any construction at Central Reservoir. The permitted area is 1,030 acres. The middle section, with the approximate extent (286 acres) shown in **Figure 1**, is the only part of the permit area that is being discussed in this groundwater monitoring plan; neither the western nor the eastern portions of the original mining permit are part of this plan.

Central Dam and Reservoir

Triview's plans for development of the site include construction of a Phase 1 embankment, construction of a slurry wall, mining of materials within the slurry wall, and finally construction of the remaining embankment and complete build-out of a reservoir with all appurtenant features. The area being addressed in this letter is referred to as Central Reservoir. The reservoir would provide off-channel water storage along the Arkansas River for augmentation or exchange purposes. As part of this effort, plans have been approved by the Office of the State Engineer (SEO) Dam Safety for the Central Dam and Reservoir (DAM ID 140319, C-1927). The dam is a zoned earthen embankment that, combined with a below grade low permeable barrier (slurry wall), will allow for an estimated 8,400 acre-feet of water to be stored above and below grade. The reservoir would have a surface area of approximately 200 acres and a maximum depth of 65 feet. This maximum depth is achieved after constructing the slurry wall to approximately 48 feet below ground surface and then constructing the embankment above the slurry wall.

SITE DESCRIPTION

In advance of pre-mining baseline monitoring, relevant publicly available information and information from Schnabel's previous documentation in support of the development of Central Reservoir were reviewed and are described below.

Description and Land Use

The parcel of land owned by Triview where Central Reservoir will exist is 286 acres, the approximate extent is shown in **Figure 1**. The northern edge of the area is bounded by U.S. Highway 50, the western edge is bounded by Nyberg Road, the southern edge is bounded by the active Santa Barbara Sand and Gravel Mine (M-2004-013), and the eastern edge is bounded by irrigated lands. To the southwest of the site, Fremont Paving and Redi Mix, Inc. operates the active Pueblo East Pit Gravel Mine. The parcels neighboring the site on both the eastern and the western side are part of the DRMS permit (M-2012-045) but are not included in this letter. The Excelsior Ditch, which runs west to east, crosses the property immediately south of Highway 50 at the north edge of the property.

In the past, the site has been used primarily for agriculture with center pivot irrigation for various crops. The permit area continues to be actively farmed, as evidenced in the 2023 aerial imagery shown in **Figure 1**.

Within the site area, there is one structure, an open sided hay barn or shed in the northwest corner. This structure and the Excelsior Ditch recharge flume are shown in **Figure 1**.

Site Topography

The site topography is show in **Figure 2**. The elevation ranges from approximately 4524 feet to 4550 feet. The land generally slopes from the north to the south, toward the Arkansas River.

Site Geology

The Central Reservoir lies in the Colorado Piedmont Physiographic Province. Regional geologic mapping (Scott et al., 1978) suggests that the near surface bedrock is the Upper Cretaceous Pierre Shale. The Pierre Shale is made up of local beds of limestone and a thick sequence of clayey to silty marine shales containing fossils. Over the bedrock, Holocene (Quaternary age) sand and gravel deposits of Piney Creek and Post Piney Creek alluvium have been deposited by the Arkansas River. Overtop the alluvium, residual and slope wash processes have deposited calcareous overburden clay soils. Erosion of sub-cropping Pierre Shale bedrock to the north is the source of the overburden soils.

The Design Report for Stonewall Springs Central Dam and Reservoir Dam ID 140139 C-1927 approved by the SEO in April 2022, provides extensive discussions about 36 borings and 22 test pits created for a thorough sub-surface analysis. The borings include: 31 exploratory borings (CR-1 through CR-31) drilled by Deere and Ault Consultants (now Schnabel) at the end of 2006 and beginning of 2007; three borings (THM-3, THM-6, and THM-10) drilled by Deere and Ault in May of 2006, and two borings (B-1 and B-2) drilled by Black and Veatch in 2004. In addition to the borings, 12 test pits (TP-1 through TP-12) were excavated at the end of February 2007. Test pits TP-13 through TP-22 were excavated on June 9, 2021. Approximate boring and test pit locations are shown in **Figures 1** and summary logs are included in **Attachment 1**.

According to the description of the extensive subsurface explorations in the design report, the site is comprised of four geologic units: overburden clay, alluvial sand and gravel, alluvial mud lens, and Pierre Shale bedrock. Overburden is primarily silty clay and locally grades to sandy clay or clayey sand and ranges in depth from 2.5 feet in the southwest to 37.5 feet in the northwest corner. The alluvial sand and gravel have a range of less than one foot to greater than 40 feet with an average thickness of 27 feet. The alluvial mud lens was only encountered in some borings. The report states that the mud lens act as discrete lenses within the alluvial sand and gravel as the mud lens is likely a result of deposits from overbank flooding. The lens was discontinuous, with some being found in drillings in the northeast part of the site. The depth to the Pierre Shale bedrock varied between 19 feet to 48 feet. The bedrock was generally shallower in the north central side and deeper in the southern and eastern sides of the site.

Existing Site Wells

Per the Colorado Decision Support System (CDSS) map viewer, there are eight constructed wells within the parcel and an additional eight within 600 feet of the permit boundary. One of the wells located within the permit boundary has not yet been issued a final well permit. This is the most recent well that was installed in the fall of 2024. Approximate well locations are shown in **Figures 1**. Well permit information for existing site wells obtained from CDSS is included in **Attachment 2**.

Permit Number 277131 (CR-24, MH-046817)

Well permit number 277131, identified as site well CR-24 and previously monitoring hole MH-046817, is located in the northeast corner of the site, immediately outside of the field irrigated by center pivot. The well was drilled in 2007 and is permitted as a monitoring well. Pierre shale bedrock was encountered at 45 feet and observed to the total depth of the boring at 50.25 feet. Perforated PVC casing, with a screen slot size of 0.02 and an outer diameter of 2.375 inches, was used between 40 and 45 feet with the remainder of the well completed using plain PVC casing with the same outer diameter. Water was encountered at 28.1 feet. The well is used for monitoring of the adjacent Pueblo East Pit mining site.

Permit Number 277100 (THM-3, MH-46206)

Well Permit Number 277100, identified as site well THM-3 and previously monitoring hole MH-46206, was constructed in 2008 and is permitted for monitoring. The well has a total depth of 50 feet. Silty clay was encountered from 0 to 26 feet and claystone was reached at 27 through the full depth of the well. The well had a diameter of 9 inches from 0-30 feet and a diameter of 6 inches from 30 to 50 feet. The well log did not specify the depths at which perforated casing was used.

Permit Number 277132 (CR-29, MH-046816)

Well Permit Number 277132, identified as site well CR-29 and previously monitoring hole MH-46816, was constructed in 2007 and is permitted for monitoring. The well has a total depth of 55 feet and water was encountered at 26.78 feet. Bedrock was encountered at 51 feet. Perforated casing (0.02-inch screen slot size) was used from 40 to 50 feet and plain casing, 2.375 inches, was used before and after the perforated casing.

WDID 1405141 (Permit Number 12920-R)

Well 1405141, operated under Permit Number 12920-R, is permitted as a general purpose well. The well was drilled in 1960 for use as an irrigation well. The original well permit from 1960 shows that the well has

a depth of 49 feet and has 21 feet of plain casing and 28 feet of perforated casing. Water was encountered at 43 feet deep. Triview attained the well per a change in ownership form in 2020.

Permit Number 277133 (CR-6, MH-046816)

Well Permit Number 277133, identified as site well CR-6 and previously monitoring hole MH-46813, is located in the southwest corner of the site. The well was drilled in 2007 and is permitted as a monitoring well. The drilling log indicates that the overburden thickness is 7.5 feet. Pierre shale was encountered at 36 feet and observed to the total depth of the boring at 61 feet. Perforated PVC casing with 0.02-inch slot size was used between 27 and 37 feet. The remainder of the borehole has plain casing. Water was encountered at 13 feet. The well is used for monitoring of the adjacent Pueblo East Pit mining site.

Permit Number 277135 (CR-10, MH-046814)

Well permit 277135, identified as site well CR-10 and previously monitoring hole MH-46814, was constructed in 2007 and is permitted for monitoring. The well was drilled to a depth of 65 feet, with 0.02-inch screen slot size perforated casing used from 34 to 44 feet deep. Bedrock was encountered at 42 feet and water was encountered at 17.6 feet. The well is used for monitoring of the adjacent Pueblo East Pit mining site.

Permit Number 277134 (CR-31, MH-046815)

Well permit 277134, identified as site well CR-31 and previously monitoring hole MH-46815, is a monitoring well located in the southeast corner of the site. The well was drilled to a depth of 66 feet. Bedrock was reached at 43 feet. Water was encountered at 17.97 feet. The well has perforated casing of 0.02-inch screen slot size from a depth of 32.5 to a depth of 42.5. The remainder of the well has 2.375-inch outer diameter plain casing.

Permit Number Pending (MH-9, MH-4001983)

Monitoring Hole (notice of intent) MH-4001983, identified as site well MH-9, was constructed in November 2024, in the southeast corner of the site. The drilling log indicates that topsoil was encountered from the surface to 1.5 feet, silt and clay from 1.5 to 7 feet, and clay from 7 to 11 feet. Sand was encountered from 11 to 14 feet, and sand with gravel turning to cobbles, extended from 14 feet to the total borehole depth of 42.5 feet deep. Perforated PVC casing with 0.1-inch screen slot size was used from a depth of 24 to 44 feet. From the top to a depth of 24 feet, plain PVC casing was used. Approval for the monitoring/observation well permit application for MH-9 was issued by the Colorado Division of Water Resources (DWR) on June 3, 2025 .

Surrounding Wells

Figure 3 shows both water level wells and the constructed wells per CDSS around the Central Reservoir site. Two wells (88531-F and 88532-F) appear to be within the permit boundary per CDSS mapping, but site visits to the Central Reservoir by Schnabel places both wells outside of the property boundary. Additional wells outside of the permit boundary were identified through reviewing permitted wells shown in the CDSS map viewer. **Attachment 3** shows the permit, WDID, well status, permitted use, and applicant for surrounding wells.

Proposed Operations

Upon the writing of this groundwater monitoring plan, mining operations have not begun at Central Reservoir. Further, site mining or any other construction activities will not occur until DRMS approves the groundwater monitoring plan for this site. Mining operation details including but not limited to dewatering plans, any on-site washing operations, and water discharge is not known at this time.

This groundwater monitoring plan is in support of the ability to begin construction on the Phase 1 embankment and slurry wall portion of Central Reservoir.

Following construction of the Phase 1 embankment a soil-bentonite slurry wall keyed into the bedrock will be constructed around the entire perimeter of the reservoir. The purpose of the slurry wall is to provide a hydraulic cutoff for the area inside the slurry wall from the surrounding groundwater. Similarly, the slurry wall will also isolate the reservoir from groundwater in the alluvium. The slurry wall will extend through the relatively permeable alluvium into the underlying relatively impermeable bedrock. The slurry wall construction consists of excavating a trench approximately 2.5 feet to 3 feet wide from the ground surface through alluvial sand and gravel, extending into suitable bedrock a minimum of 4 feet. The trench walls are stabilized using a bentonite slurry. The bentonite slurry contains water and premium grade sodium cation montmorillonite (bentonite). This bentonite slurry stabilizes the trench until a soil-bentonite backfill mixture is placed into the trench. The soil-bentonite backfill forms the hydraulic barrier, significantly reducing groundwater flows into the area encompassed by the wall. Excavation of the slurry wall will produce a mixture of overburden and alluvial soils that is not expected to contain sufficient fine-grained clayey (passing the No. 200 sieve) material to produce low permeability hydraulic cutoff. The technique used to adjust the mixture of the backfill includes “casting-out” of a portion of the sands and gravels during trench excavation, and the introduction of supplemental fine-grained clayey soils at the surface during soil-bentonite backfill mixing. The soil-bentonite backfill mixture consists of existing sand and gravel mixed with supplemental clayey soils, bentonite slurry, and dry bentonite.

Following construction of the slurry wall, mining operations would commence within the designated area encompassed by the slurry wall. Mining would remove sand and gravel deposits that are between the overburden and the bedrock. As discussed in the geology section, the overburden varies between less than one foot to greater than 37 feet while the bedrock varies between 19 feet to 48 feet below ground surface. The alluvial sand and gravel materials that would be mined varies with an average thickness of approximately 27 feet. The mining operations would remove the alluvial materials to bedrock.

GROUNDWATER CHARACTERIZATION

Pre-Baseline Groundwater Characterization

The groundwater on-site is solely within the Arkansas River Valley alluvial aquifer that exists above the Pierre Shale confining layer. To characterize the current groundwater conditions as part of the baseline analysis, monitoring well logs and associated well construction logs were reviewed. Information regarding depth to groundwater is presented in **Table 1** and well locations are shown in **Figure 1, Figure 3**, **Figure 4**, and **Figure 5**. For wells with more than a single water depth reading, historical depth records are included in **Attachment 4**. The wells are all located in the alluvial aquifer.

Sixteen monitoring wells within a half mile of the site have water level data between September 1, 1962, and March 6, 1984, showed average depths to groundwater between 11 and 28 feet of water.

Schnabel supported the drilling and development of multiple wells in and around the Central Reservoir site in the 2000s. More recently, some of these wells have been used for monitoring the Pueblo East Pit mining operation to the southwest. **Table 1** includes average depths to groundwater and **Attachment 4** includes well depth information for CR-6, CR-24, and CR-10. The monthly monitoring data from 2018 through 2024 is shown. The average depth ranged from 15 to 27 feet with a minimum depth of 13 and a maximum depth of 31 feet.

Potential Impacts of Mining on Groundwater Quantity

In order to determine permitted wells that may be impacted by mining operations, all permitted and decreed wells are shown in **Figure 3**. The alluvial groundwater fluctuates seasonally with the maximum elevation generally being at the top of the alluvial sand and gravel deposits. The groundwater generally flows from the northwest to the southeast, toward the Arkansas River. The Central Reservoir slurry wall is anticipated to keep seepage, or hydraulic interaction between the area inside the slurry wall and the surrounding groundwater, to a minimum. The depth to groundwater could change with time due to the obstruction of the natural groundwater flow. This may result in groundwater mounding a few feet on the upgradient (west) side and groundwater decreasing a few feet due to shadowing on the downgradient (east) side.

According to the mapping of the alluvial aquifer shown in **Figure 3** and **Figure 4**, wells north or upgradient of the property/U.S. Highway 50 would not be impacted by mining operations. And wells south of the Arkansas River or east of Chico Creek would likely not be impacted. All permitted wells potentially impacted by mining operations are included in **Attachment 3**.

Potential Impacts of Mining on Groundwater Quality

The mining of materials at Central Reservoir is not anticipated to adversely affect surrounding groundwater quality or quantity because the slurry wall will act as a hydraulic barrier reducing the interaction between groundwater in the mining area and the surrounding groundwater.

Proposed Monitoring Locations

To establish baseline groundwater conditions, we will be monitoring wells located within the permit area both upgradient and downgradient of the proposed mining area. Monitoring well locations that we are proposing to use as sampling points are presented in **Table 2** and shown in **Figure 5**.

Existing wells are considered to be appropriate for monitoring well purposes if the location, top of casing, total depth, screened intervals, and date of establishment are known and considered sufficient to accurately represent groundwater quality and groundwater water levels.

Monitoring location #1 is site well CR-24. This well is located hydraulically up-gradient from the proposed mining area in the northwest portion of the site. Monitoring location #2 is site well CR-6 which is in the southwest portion of the property. Monitoring location #3 is site well MH- 9 which is located hydraulically downgradient in the southeast portion of the property. A fourth well located in the northeast corner of the site, site well THM-3, is currently dry. If sufficient groundwater returns to this well due to seasonal groundwater fluctuations or other natural reasons, this well could be used as monitoring location #4. Construction information per the well permits is included in **Attachment 2**. Monitoring location #3 has not had a final permit issued as of this date.

PROPOSED BASELINE GROUNDWATER CHARACTERIZATION

Baseline Groundwater Characterization

Characterizing groundwater prior to mining requires measuring current water quality and quantity via water levels. Baseline data for groundwater quality and quantity prior to proposed mining operations will be comparable to groundwater quality and quantity during future mining operations to demonstrate impacts, or lack thereof, to groundwater due to mining. Establishing baseline groundwater conditions will include sampling from the three proposed monitoring well locations. Samples will be taken at quarterly intervals to collect five consecutive quarters worth of data.

On December 26, 2024, Triview personnel performed the first sample collection. The applied methodology is presented here to allow the December sampling event to represent the first quarter of data.

Establishing Baseline Groundwater Levels

Groundwater levels will be collected from each monitoring well (CR-24, CR-6 and MH-9) during each sampling event. To measure water depth, a water level indicator will be used to measure from the top of the casing to the point where water is encountered in each well during each sampling event. These measurements are used to calculate the water depth below ground surface and the elevation of the water above mean sea level (AMSL). Water levels will contribute to quantifying the site hydrogeology to establish pre-mining conditions.

Establishing Baseline Groundwater Quality

Water quality sampling will include field and laboratory testing of the water. The pH, temperature, and conductivity will be measured in the field, see **Table 3**. **Table 4** shows the proposed list of laboratory water quality parameters to be tested during each sampling event to establish baseline water quality. The analytes proposed in the table include all variables presented in *Appendix A*, *Full parameter list for Construction Materials Sites from Regulation 41, Tables 1-4* in *Groundwater Monitoring: Sampling and Analysis Plan Guidance Construction Materials and Hard Rock Sites, September 2023.* To establish baseline groundwater quality, water quality samples will be collected quarterly from the monitoring wells for five consecutive quarters. **Attachment 5** includes documentation from the December sampling event to demonstrate the lab tests that were performed.

Sampling Methods

Each well to be used as the points of compliance or sampling location will be developed to remove sediment or drilling materials. Water quality testing and water depths measurements will be performed on a quarterly basis. For the quarterly data collection, the water level measurements will be taken and then the well will be purged and groundwater samples collected for both field and laboratory analysis. Purging and sampling will be completed using low flow methods and an appropriate groundwater sampling pump. Groundwater gauging and stabilization parameters (pH, temperature, conductivity, and turbidity) will be measured using a flow through cell. A summary of field calibration procedures and bump test results will be provided to document full calibration and instrument accuracy before and after evaluation and will include the type(s) of calibration standards and expiration date. Each instrument will be field calibrated prior to use.

For each test, Triview will collect samples from all three monitoring wells. Water samples will be removed from the top of the water column. Additional sampling protocol includes:

- Samples will be collected from all points of compliance during each quarterly site visit.
- Prior to collecting water samples, the depth of the water will be measured.
- All testing equipment will be removed from the site between each sampling event.
- Sample collection and storage will follow the requirements provided by the lab testing the samples.
- Samples will be delivered to the testing laboratory within the lab-provided recommended time following sample collection.
- Each sampling event will include documentation describing the field work.
- Samples from the wells located above gradient will be collected before the below gradient wells are sampled.
- Water samples will be filtered at the time of collection.
- Wells will be purged (one casing volume) a minimum of three times before water samples are collected. Between each purging, temperature, pH, conductivity, and dissolved oxygen will be measured.
- If between the second and third purging, the measured parameters vary more than 10%, subsequent purges will be performed (up to six times total) until measured parameters are within 10% of the previous values.

Baseline Conditions

Baseline groundwater conditions will be presented in a written report. Water levels as measured from the monitoring wells will be provided in tabular and graphical format. The report will include a table summarizing baseline groundwater quality sample results from each sampling event, and a narrative about the data collection process.

PROPOSED FUTURE GROUNDWATER MONITORING

Proposed Points of Compliance

Points of compliance are defined as the locations where groundwater classification through elevation and quality will be evaluated by the WQCC throughout the duration of the groundwater monitoring plan, with DRMS having the authority to approve the proposed compliance points. These are the locations that will be monitored during mining operations.

Based on the pre-baseline groundwater characterization, **Figure 5** shows two proposed points of compliance. The proposed points of compliance are located in areas that will not be disturbed by mining and within the DRMS permit extent. Point of Compliance #1 is the same location as proposed for Monitoring Location #1 and is located hydraulically above-gradient of future proposed mining operations. Point of Compliance #2 is the same borehole as Monitoring Location #3 and is located hydraulically down-gradient of the proposed mining to monitor impacts of mining.

The current proposed points of compliance are based on pre-baseline groundwater characterization at the site to meet DRMS requirements for final permit approval. Baseline groundwater monitoring may inform more appropriate placement of points of compliance.

Future Monitoring

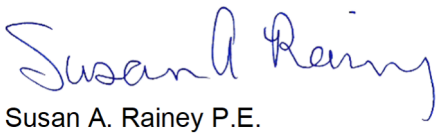
Water testing will be performed on a quarterly basis with water quality samples and water depths collected and provided to DRMS after each quarterly event. Sampling methods will be consistent with those described in the Baseline Groundwater Characterization Sample Methods, above. **Table 3** and **Table 4** includes the proposed list of variables to test for during mining operations.

CONCLUSION

The Groundwater Monitoring Plan outlined in this document serves to establish that the construction of the phase 1 embankment and slurry wall at the Central Reservoir site, and future mining operations will not adversely affect groundwater quality and quantity. Through establishing baseline groundwater characterization future site operations can be monitored to ensure continued maintenance of water quality and quantity.

Sincerely,

SCHNABEL ENGINEERING, LLC



Susan A. Rainey P.E.
Senior Associate Engineer

Attachments

REFERENCES

Scott, G.R., Taylor, R.B., Epis, R.C., and Wobus, R.A., 1978, Geologic Map of the Pueblo 1° x 2° Quadrangle, South-Central Colorado, USGS Map I-1022.

TABLES

Table 1: Pre-Baseline Groundwater Depth Information

Type	Name	Well Elevation	Well Depth	Depth to Groundwater							Data Source
				Date(s) of Data Collection	Count	Avg Depth to GW	Min		Max		
							Value	Date	Value	Date	
Water level	SC02006231CCB1[1]	4526.58	47	04/01/1964 - 03/07/1979	27	17.3	12.4	11/13/1965	26.2	3/25/1969	SC02006231CCB1
Water level	SC02006231CCB2[1]	4528.54	39	8/1/1962	1	15.0	-	-	-	-	SC02006231CCB2
Water level	SC02006231CCC3[1]	4526.21	42	8/1/1962	1	12.0	-	-	-	-	SC02006231CCC3
Water level	SC02006335ADC1[1]	4546.55	46	8/1/1962	1	28.0	-	-	-	-	SC02006335ADC1
Water level	SC02006335ADC2[1]	4540.52	48	8/1/1962	1	28.0	-	-	-	-	SC02006335ADC2
Water level	SC02006335ADD[1]	4542.6	45	10/02/1963 - 03/06/1984	28	25.2	21.4	11/13/1965	30.0	10/2/1963	SC02006335ADD
Water level	SC02006335DAC[1]	4531.42	39	9/1/1964	1	12.0	-	-	-	-	SC02006335DAC
Water level	SC02006336CBA[1]	#N/A	39	10/02/1963 - 03/10/1981	25	17.3	13.5	11/13/1965	20.3	10/2/1963	SC02006336CBA
Water level	SC02006336DBD[1]	4533.86	47	8/1/1962	1	20.0	-	-	-	-	SC02006336DBD
Water level	SC02006336DCA[1]	4530.92	46	8/1/1962	1	20.0	-	-	-	-	SC02006336DCA
Water level	SC02006336DCD2[1]	4524.22	38	8/1/1962	1	13.0	-	-	-	-	SC02006336DCD2
Water level	SC02006231CDD[1]	4527.14	49	08/01/1962 - 05/06/1980	24	21.1	16.0	8/1/1962	30.6	5/6/1980	SC02006336DCD2
Water level	SC02006336DCD1[1]	4524.22	42	08/01/1962 - 03/06/1984	28	16.5	12.9	11/13/1965	20.4	10/2/1963	SC02006336DCD2
Water level	SC02006231CCC1[1]	4526.21	36	8/1/1962	1	13.0	-	-	-	-	SC02006231CCC1
Water level	SC02006231CCC2[1]	4526.21	44	8/1/1962	1	12.0	-	-	-	-	SC02006231CCC2
Water level	SC02006231CCC4[1]	4526.21	42	8/1/1962	1	11.0	-	-	-	-	SC02006231CCC4
Monitoring well	277131 (CR-24)[2]	4542	50.25	12/15/2018 - 05/29/2024	82	28.6	27.4	4/25/2024	31.1	12/30/2019	*Pueblo East Pit monitoring data*
Monitoring well	277133 (CR-6)[2]	4526.2	61	12/15/2018 - 05/29/2024	82	14.8	13.3	3/3/2021	19.8	1/17/2019	*Pueblo East Pit monitoring data*
Monitoring well	(CR-10)[2]	4527.77		12/15/2018 - 05/29/2024	82	19.7	17.2	12/14/2023	27.0	12/15/2018	*Pueblo East Pit monitoring data*
Monitoring Well	4001983-MH (MH-9)[2]	4530	44	11/22/2024	1	15.6	-	-	-	-	*Well log*

Notes: [1]: Data obtained from CDSS tabulation of existing water level monitoring wells within a half mile of the permitted extent. Elevation from DEM (NAVD 88).

[2]: Elevation from ground elevation specified on well permits

Table 2: Monitoring Well Details

Name	Location (UTM coordinates)	Land Surface Elevation[1]	Depth to Top of Perforated Casing (Elevation) [1]	Total Depth
Monitoring Location #1 [2] (277131, CR-24)	552667 4235697	4542	40	50.25
Monitoring Location #2 (277133, CR-6)	552557 4234804	4525.3	27	61
Monitoring Location #3 (4001983-MH, MH-9)	553707 4324779	4530	24	44

Notes: [1]: Elevations based on the ground surface elevation as stated in the original permit.
[2]: Elevation from ground elevation specified on well permits

Table 3: Proposed Parameters Tested for during Baseline Monitoring, Field

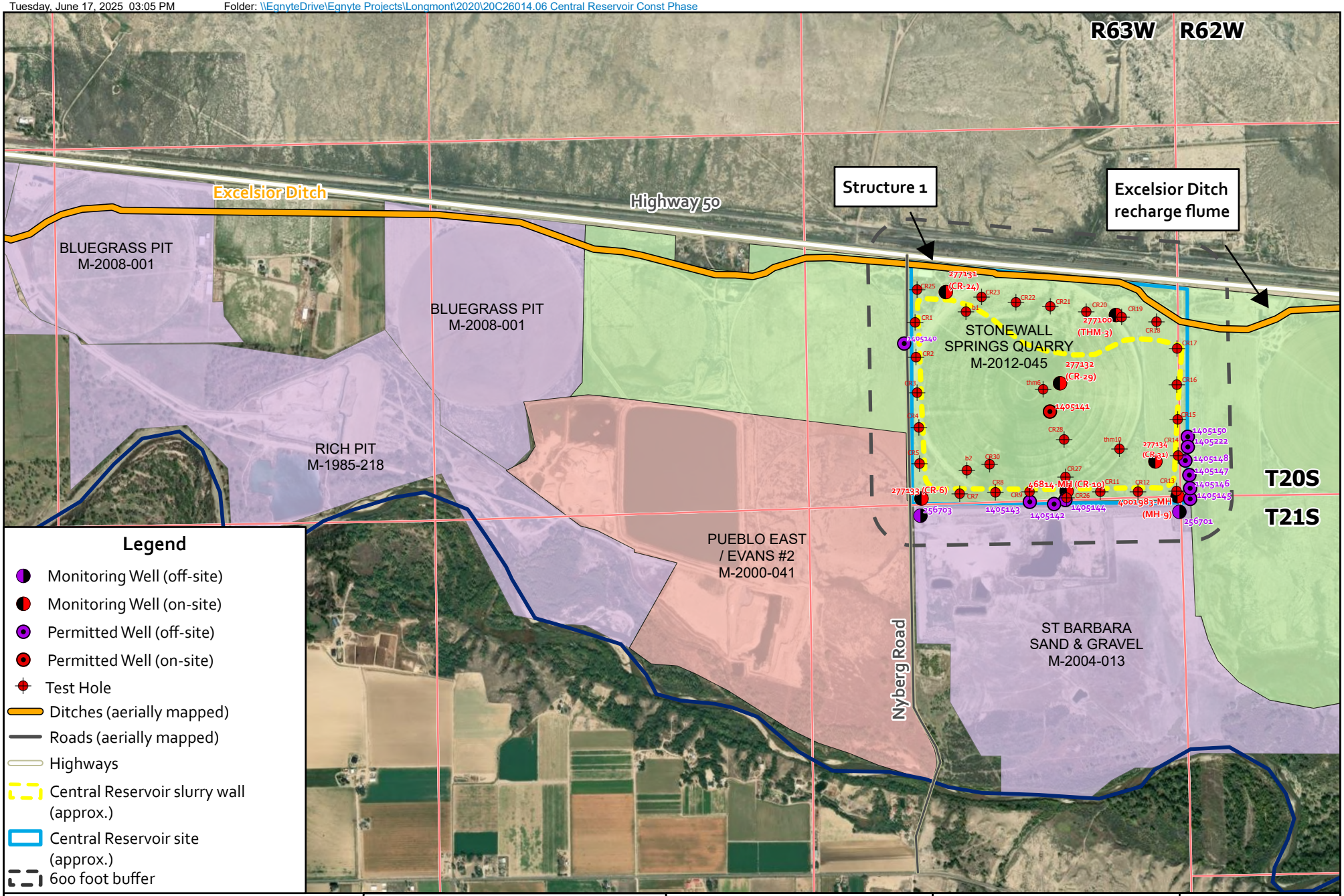
Variable	Table Value Standard (mg/L, unless other units given)	Reg. 41 Table Reference (1-4)	Sampling Specifications	
			Method	Description
Temperature			Field	-
pH	6.50 – 8.50	2 and 3	Field	-
Conductivity			Field	-

Table 4: Proposed Parameters Tested for during Baseline Monitoring, Laboratory

Variable	Table Value Standard (mg/L, unless other units given)	Reg. 41 Table Reference (1-4)
Aluminum - Dissolved	5	3
Antimony – Dissolved	0.006	1
Arsenic – Dissolved	0.01	1
Barium – Dissolved	2	1
Beryllium – Dissolved	0.004	1
Boron – Dissolved	0.75	3
Cadmium – Dissolved	0.005	1
Chloride – Dissolved	250	2
Chromium – Dissolved	0.1	1 and 3
Cobalt – Dissolved	0.05	3
Copper – Dissolved	0.2	3
Fluoride – Dissolved	2	3
Iron – Dissolved	0.3	2
Lead – Dissolved	0.05	1
Lithium – Dissolved	2.5	3
Manganese – Dissolved	0.05	2
Mercury – Dissolved	0.002	1
Molybdenum – Dissolved	0.21	1
Nickel – Dissolved	0.1	1
Nitrate (NO3)	10	1
Nitrite (NO2)	1	1
Nitrite + Nitrate as Nitrogen	10	1
Selenium – Dissolved	0.02	3
Silver – Dissolved	0.05	1
Sulfate – Dissolved	250	2
TDS	400 mg/L, or 1.25X	4
Thallium – Dissolved	0.002	1
Uranium – Dissolved	0.0168 to 0.03	1
Vanadium – Dissolved	0.1	3
Zinc – Dissolved	2	3

FIGURES

Tuesday, June 17, 2025 03:05 PM Folder: \\EgnyteDrive\Egnyte Projects\Longmont\2020\20C26014.06 Central Reservoir Const Phase



Schnabel ENGINEERING

DRAWN BY: EK

Susan A. Rainey

Susan A Rainey Date: 3/13/2025

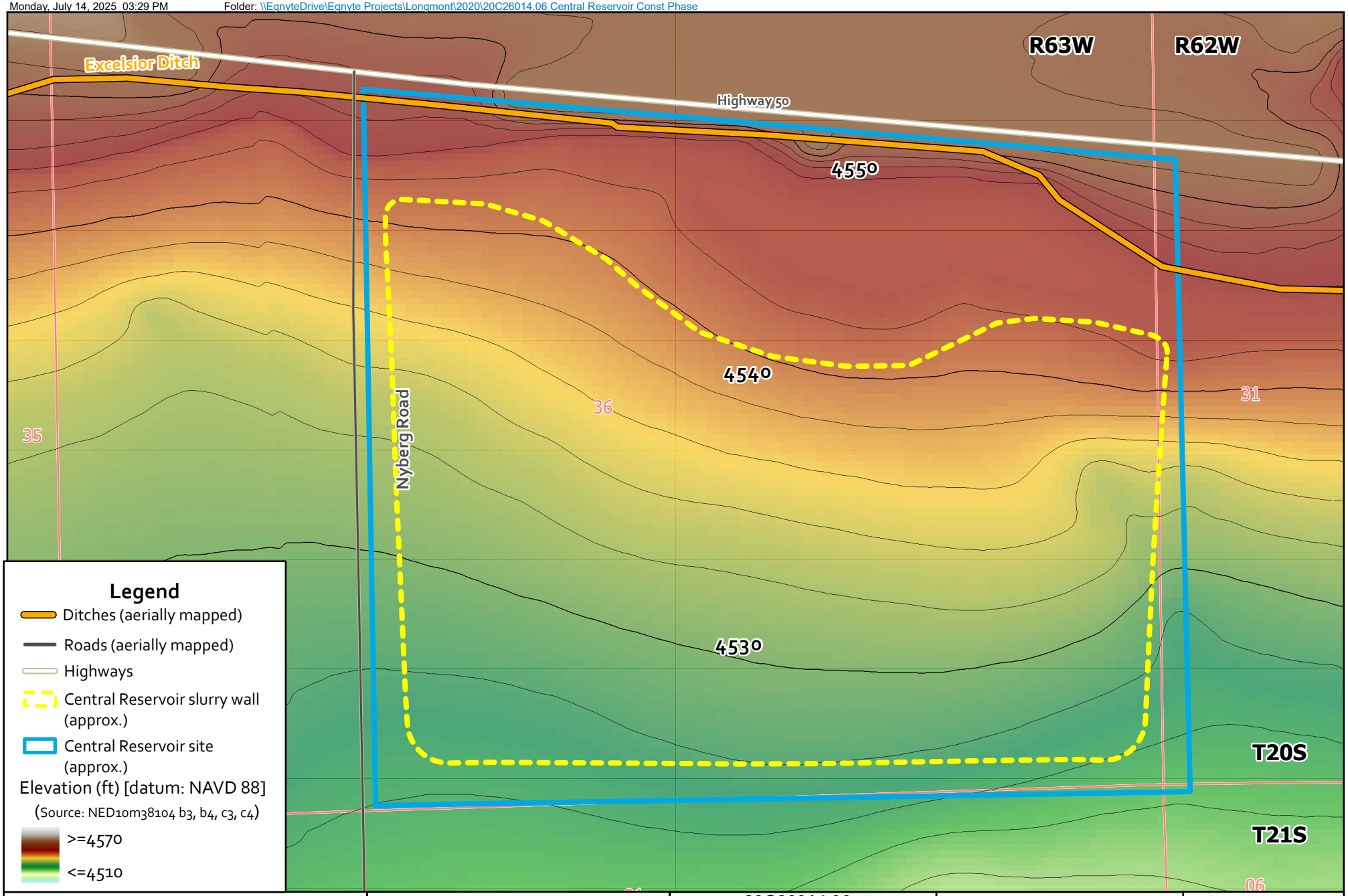
State Professional Engineer: 39376

CENTRAL RESERVOIR GROUNDWATER MONITORING PLAN PUEBLO, CO

Site Overview

FIGURE NO. 1

Monday, July 14, 2025 03:29 PM Folder: \\EgnyteDrive\Egnyte Projects\Longmont\2020\20C26014.06 Central Reservoir Const Phase



Schnabel ENGINEERING

JOB NO: 20C26014.06

Susan A. Rainey

Date: 3/13/2025

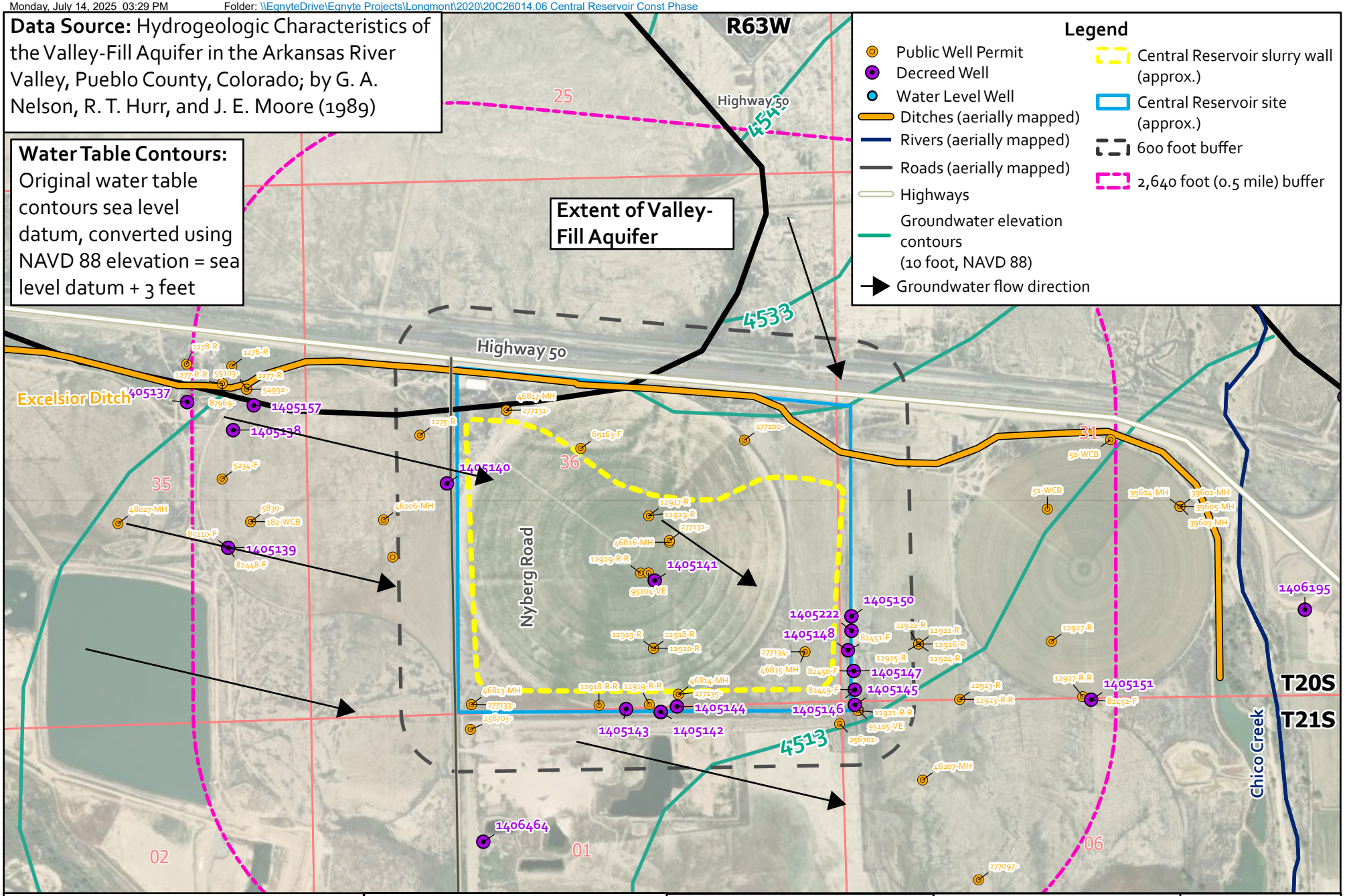
State Professional Engineer: 39376

CENTRAL RESERVOIR GROUNDWATER MONITORING PLAN PUEBLO, CO

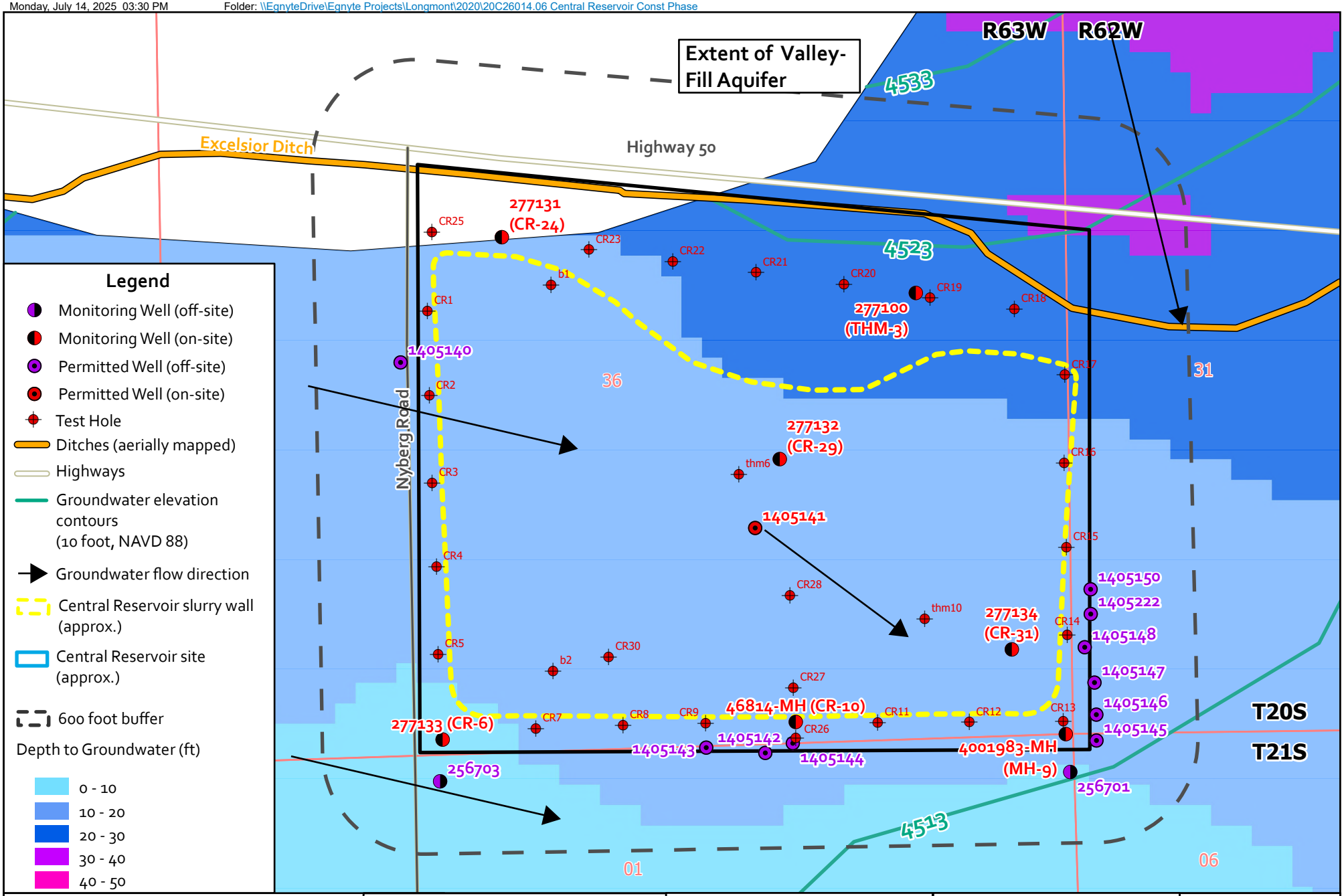
Site Topography

FIGURE NO. 2

Monday, July 14, 2025 03:29 PM Folder: \\EgnyteDrive\Egnyte Projects\Longmont\2020\20C26014.06 Central Reservoir Const Phase



Monday, July 14, 2025 03:30 PM Folder: \\EgnyteDrive\Egnyte Projects\Longmont\2020\20C26014.06 Central Reservoir Const Phase



N

0 750 1,500 Feet

Scale: 1 inch = 750 feet

Aerial Imagery: Pueblo County 2023 NAIP

Schnabel ENGINEERING

JOB NO: 20C26014.06

Susan A. Rainey

Susan A Rainey Date: 3/13/2025

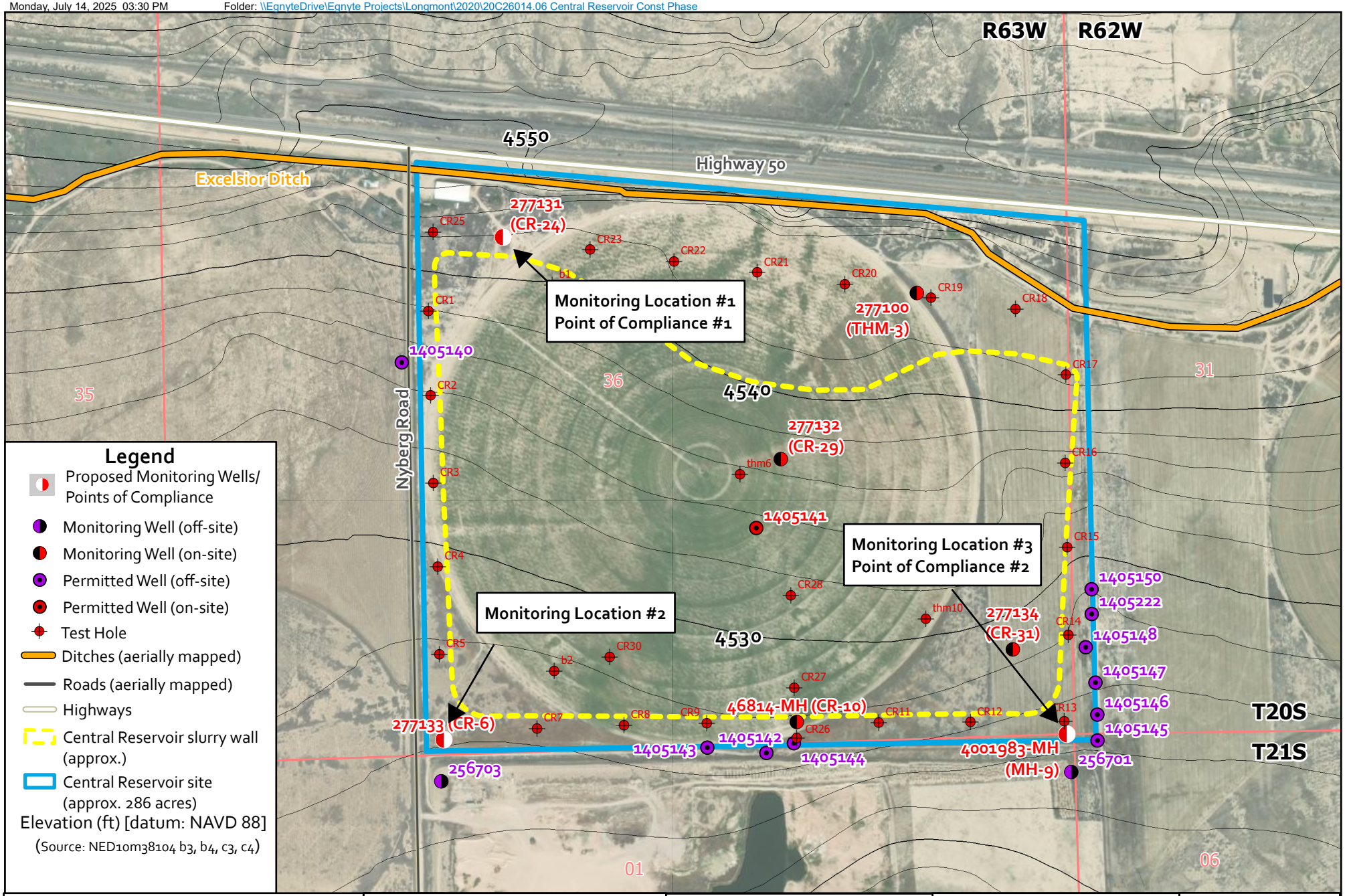
State Professional Engineer: 39376

CENTRAL RESERVOIR GROUNDWATER MONITORING PLAN PUEBLO, CO

Approximate Depth to Groundwater

FIGURE NO. 4

Monday, July 14, 2025 03:30 PM Folder: \\EgnyteDrive\Egnyte Projects\Longmont\2020\20C26014.06 Central Reservoir Const Phase



Legend

- Proposed Monitoring Wells/ Points of Compliance
- Monitoring Well (off-site)
- Monitoring Well (on-site)
- Permitted Well (off-site)
- Permitted Well (on-site)
- Test Hole
- Ditches (aerially mapped)
- Roads (aerially mapped)
- Highways
- Central Reservoir slurry wall (approx.)
- Central Reservoir site (approx. 286 acres)

Elevation (ft) [datum: NAVD 88]
(Source: NED10m38104 b3, b4, c3, c4)

N

0 750 1,500 Feet

Scale: 1 inch = 750 feet
Vertical Datum: NAVD 88

Schnabel ENGINEERING

JOB NO: 20C26014.06

Susan A. Rainey
Susan A Rainey Date: 3/13/2025
State Professional Engineer: 39376

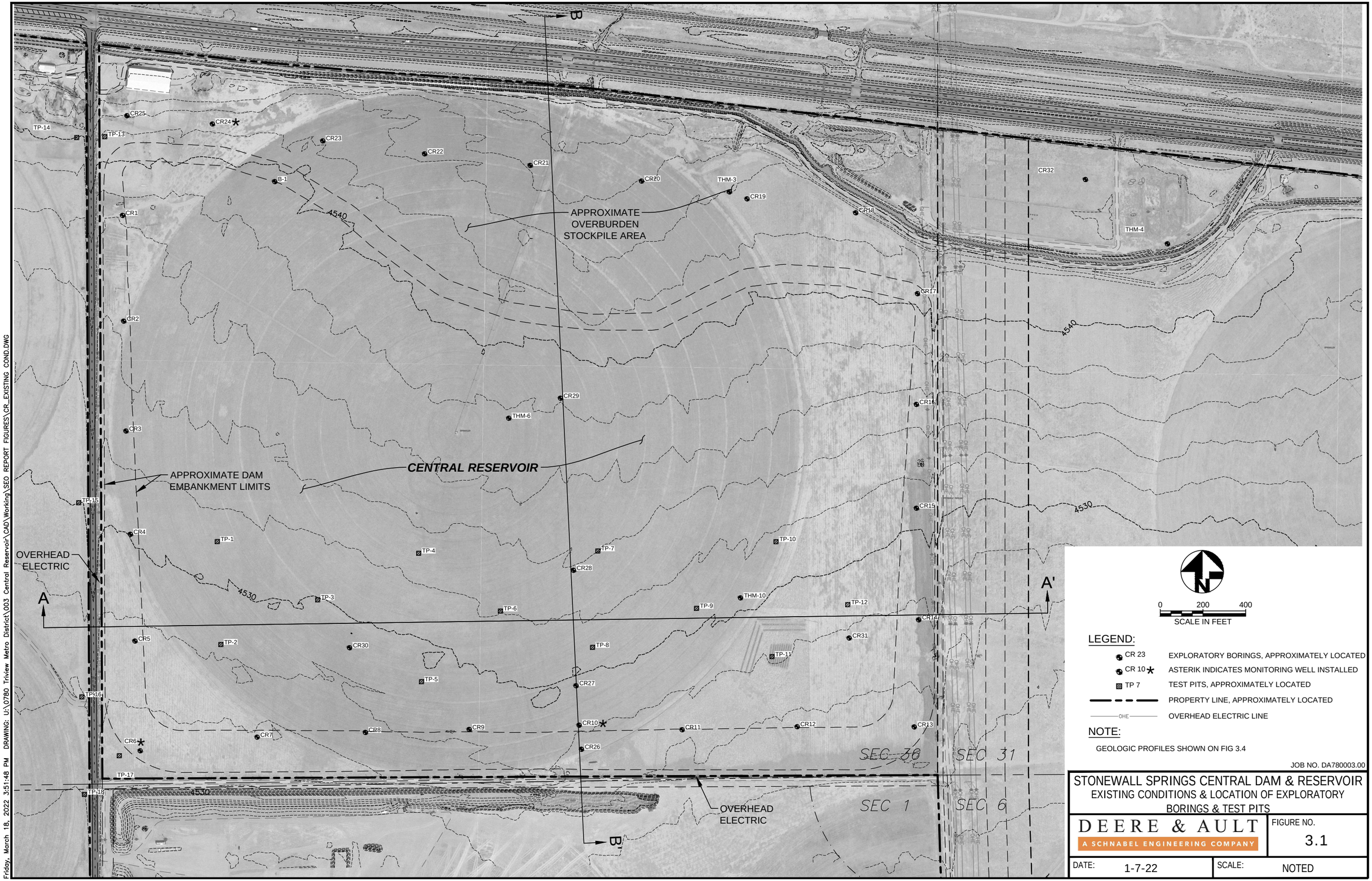
CENTRAL RESERVOIR GROUNDWATER MONITORING PLAN PUEBLO, CO

Proposed Monitoring Locations & Points of Compliance

FIGURE NO. 5

ATTACHMENT 1

EXPLORATORY BORING AND TEST PITS



0 200 400
SCALE IN FEET

LEGEND:

CR 23	EXPLORATORY BORINGS, APPROXIMATELY LOCATED
CR 10 ✱	ASTERIK INDICATES MONITORING WELL INSTALLED
TP 7	TEST PITS, APPROXIMATELY LOCATED
	PROPERTY LINE, APPROXIMATELY LOCATED
OHE	OVERHEAD ELECTRIC LINE

NOTE:

GEOLOGIC PROFILES SHOWN ON FIG 3.4

JOB NO. DA780003.00

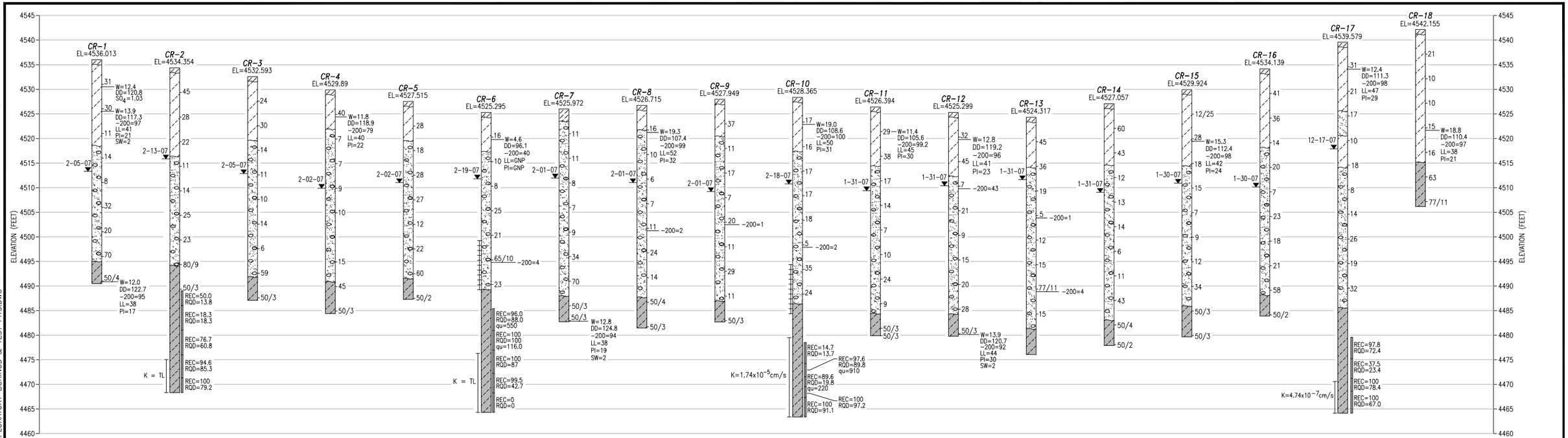
STONEWALL SPRINGS CENTRAL DAM & RESERVOIR
EXISTING CONDITIONS & LOCATION OF EXPLORATORY BORINGS & TEST PITS

DEERE & AULT
A SCHNABEL ENGINEERING COMPANY

FIGURE NO. 3.1

DATE: 1-7-22

SCALE: NOTED



JOB NO. DA780003.00

STONEWALL SPRINGS CENTRAL DAM & RESERVOIR

SUMMARY LOGS OF EXPLORATORY BORINGS & TEST PITS

DEERE & AULT
A SCHNABEL ENGINEERING COMPANY

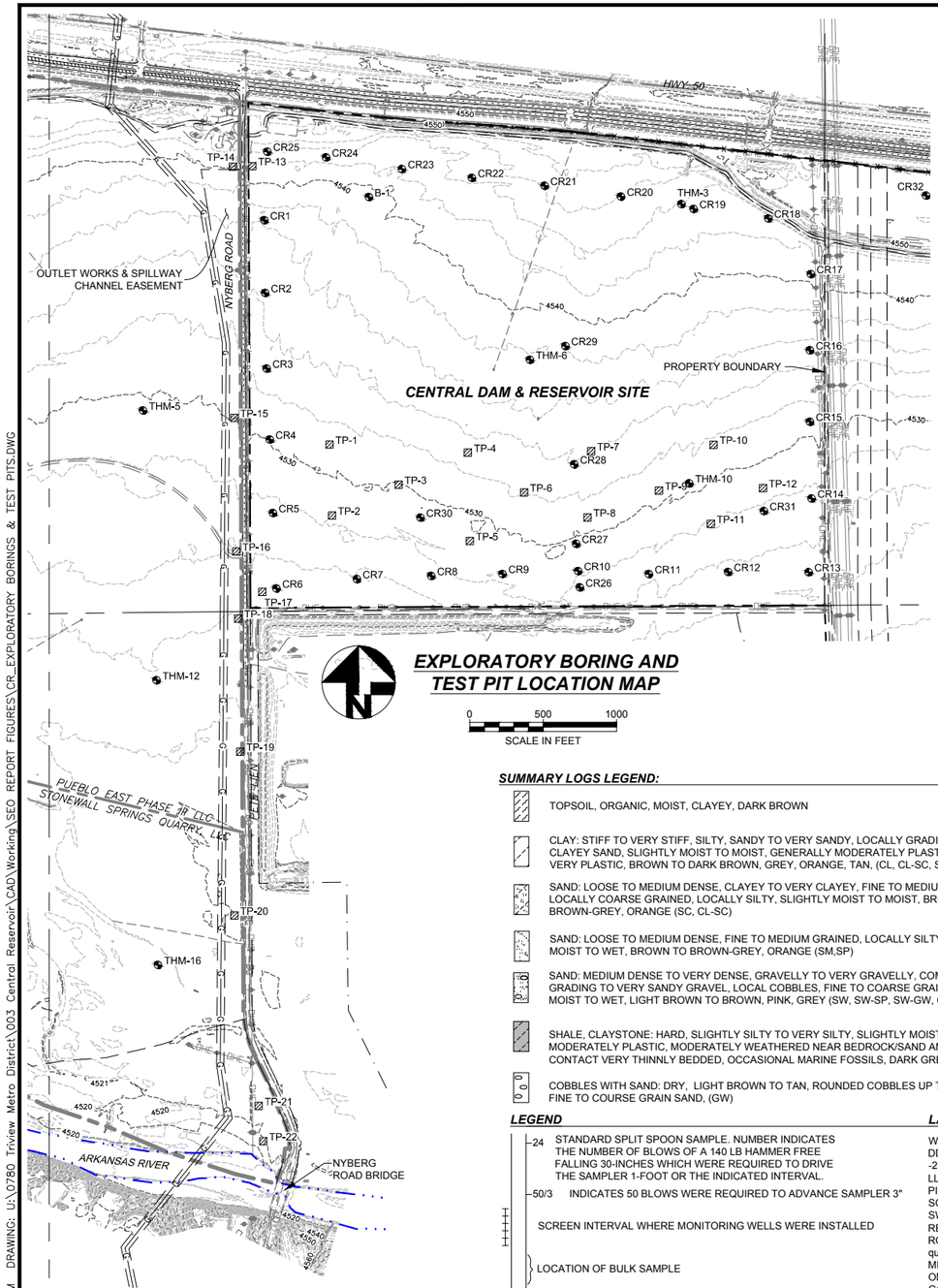
FIGURE NO. **3.2**

DATE: **1-7-22**

SCALE: **NOTED**

NOTES:

1. FOR BORING LOCATIONS AND LEGEND SEE SHEET 6.
2. (ASTERISK) B-1 ELEVATION WAS ESTIMATED TO NEAREST FOOT.



EXPLORATORY BORING AND TEST PIT LOCATION MAP

0 500 1000
SCALE IN FEET

SUMMARY LOGS LEGEND:

- TOPSOIL, ORGANIC, MOIST, CLAYEY, DARK BROWN
- CLAY: STIFF TO VERY STIFF, SILTY, SANDY TO VERY SANDY, LOCALLY GRADING TO VERY CLAYEY SAND, SLIGHTLY MOIST TO MOIST, GENERALLY MODERATELY PLASTIC, LOCALLY VERY PLASTIC, BROWN TO DARK BROWN, GREY, ORANGE, TAN, (CL, CL-SC, SC, CH)
- SAND: LOOSE TO MEDIUM DENSE, CLAYEY TO VERY CLAYEY, FINE TO MEDIUM GRAINED, LOCALLY COARSE GRAINED, LOCALLY SILTY, SLIGHTLY MOIST TO MOIST, BROWN TO BROWN-GREY, ORANGE (SC, CL-SC)
- SAND: LOOSE TO MEDIUM DENSE, FINE TO MEDIUM GRAINED, LOCALLY SILTY, MOIST TO WET, BROWN TO BROWN-GREY, ORANGE (SM,SP)
- SAND: MEDIUM DENSE TO VERY DENSE, GRAVELLY TO VERY GRAVELLY, COMMONLY GRADING TO VERY SANDY GRAVEL, LOCAL COBBLES, FINE TO COARSE GRAINED, SLIGHTLY MOIST TO WET, LIGHT BROWN TO BROWN, PINK, GREY (SW, SW-SP, SW-GW, GW, GP)
- SHALE, CLAYSTONE: HARD, SLIGHTLY SILTY TO VERY SILTY, SLIGHTLY MOIST, GENERALLY MODERATELY PLASTIC, MODERATELY WEATHERED NEAR BEDROCK/SAND AND GRAVEL CONTACT VERY THINNLY BEDDED, OCCASIONAL MARINE FOSSILS, DARK GREY
- COBBLES WITH SAND: DRY, LIGHT BROWN TO TAN, ROUNDED COBBLES UP TO 6" IN SIZE, FINE TO COURSE GRAIN SAND, (GW)

MAP LEGEND:

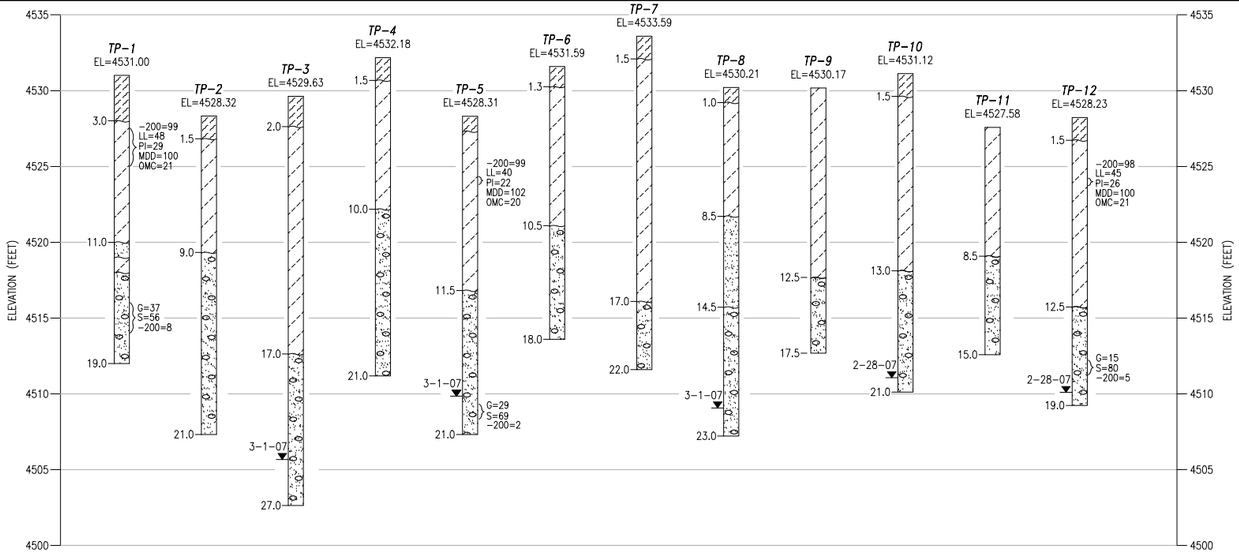
- TP-6 — EXPLORATORY TESTPIT & IDENTIFICATION NUMBER
- CR30 — EXPLORATORY BORING
- THM-3 — (TESTHOLE) & IDENTIFICATION NUMBER

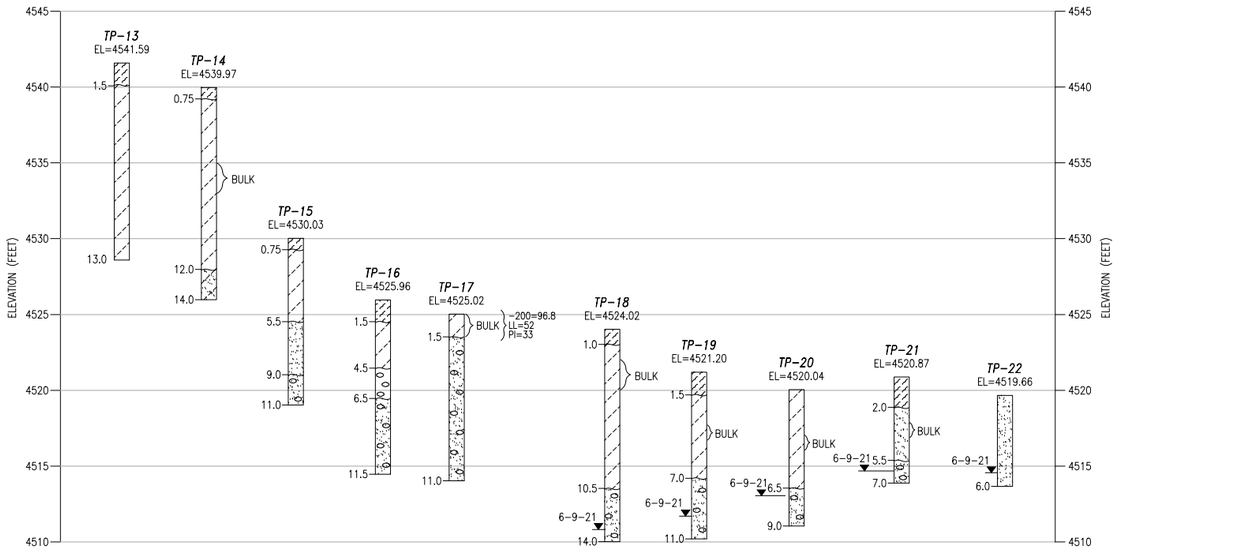
LEGEND

- 24 — STANDARD SPLIT SPOON SAMPLE. NUMBER INDICATES THE NUMBER OF BLOWS OF A 140 LB HAMMER FREE FALLING 30-INCHES WHICH WERE REQUIRED TO DRIVE THE SAMPLER 1-FOOT OR THE INDICATED INTERVAL.
- 50/3 — INDICATES 50 BLOWS WERE REQUIRED TO ADVANCE SAMPLER 3"
- SCREEN INTERVAL WHERE MONITORING WELLS WERE INSTALLED
- LOCATION OF BULK SAMPLE
- APPROXIMATE CONTACT BOUNDARY
- K=3.8 x 10^{-5} CM/S — PACKER TEST INTERVAL AND CALCULATED PERMEABILITY BASED ON FIELD MEASUREMENTS. TL INDICATES "TOO LOW TO MEASURE"
- CORE INTERVAL
- 2-05-07 — WATER ENCOUNTERED DURING DRILLING OR TEST PIT EXCAVATION AND DATE MEASURED
- 24 — DEPTH OF TEST PIT (FT)

LAB TEST ABBREVIATIONS

W=MOISTURE CONTENT %
DD=DRY DENSITY pcf
-200=% PASSING 200 SIEVE
LL=LIQUID LIMIT %
PI=PLASTICITY INDEX %
SO_4 =SULFATE CONTENT %
SW=% SWELL WITH 1 kip SURCHARGE
REC=CORE RECOVERY, %
RQD=ROCK QUALITY DESIGNATION, %
qu=UNCONFINED COMPRESSIVE STRENGTH, psi
MDD=STANDARD PROCTOR MAXIMUM DRY DENSITY pcf
OMC=STANDARD PROCTOR OPTIMUM MOISTURE CONTENT %
G=GRAVEL CONTENT, %
S=SAND CONTENT, %
K=PERMEABILITY, (cm/sec)
TL=TOO LOW TO MEASURE





NOTES:

1. EXPLORATORY BORINGS CR-1 THRU CR-32 WERE DRILLED DECEMBER 30, 2006 THRU FEBRUARY 19, 2007 USING A TRUCK-MOUNTED CME 75 DRILL RIG. BORINGS WERE DRILLED WITH 4.25-INCH I.D. HOLLOW STEM AUGERS. BORINGS THM-3, THM-5, THM-6, THM-12 & THM-16 WERE DRILLED FROM MAY 1, 2006 TO MAY 7, 2006. BORING B-1 WAS DRILLED NOVEMBER 3, 2004 BY KLIENFELDER & ASSOCIATES.
2. PACKER TESTS WERE PERFORMED AT THE LOCATION OF TH-2, 6, 10, 17, AND 31 FEBRUARY 8 THROUGH FEBRUARY 19, 2007.
3. ALL EXPLORATORY BORING LOCATIONS AND ELEVATIONS WERE SURVEYED BY MANGINI REEVES, INC. USING GPS SURVEYING INSTRUMENTS.
4. LINES BETWEEN MATERIALS REPRESENT APPROXIMATE BOUNDARIES BETWEEN TYPES AND TRANSITIONS MAY BE GRADUAL.
5. GROUNDWATER LEVELS WERE MEASURED AT THE TIME OF DRILLING ON THE DATES INDICATED. GROUNDWATER LEVELS WILL FLUCTUATE SEASONALLY AND DUE TO SITE MINING AND DEWATERING OPERATIONS.
6. TEST PITS TP-1 THROUGH TP-12 WERE EXCAVATED 2/28/07 & 3/1/07 WITH A KOMATSU EXCAVATOR. TP-13 THROUGH TP-22 WERE EXCAVATED WITH A DEERE 290G TRACKHOE ON JUNE 9, 2021 AND WERE APPROXIMATELY LOCATED USING SITE FEATURES.
7. HORIZONTAL DATUM: NAD83 STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE; VERTICAL DATUM: NAVD88

JOB NO. DA780003.00

STONEWALL SPRINGS CENTRAL DAM & RESERVOIR

EXPLORATORY TEST PIT SUMMARY LOGS & LEGEND

DEERE & AULT
A SCHNABEL ENGINEERING COMPANY

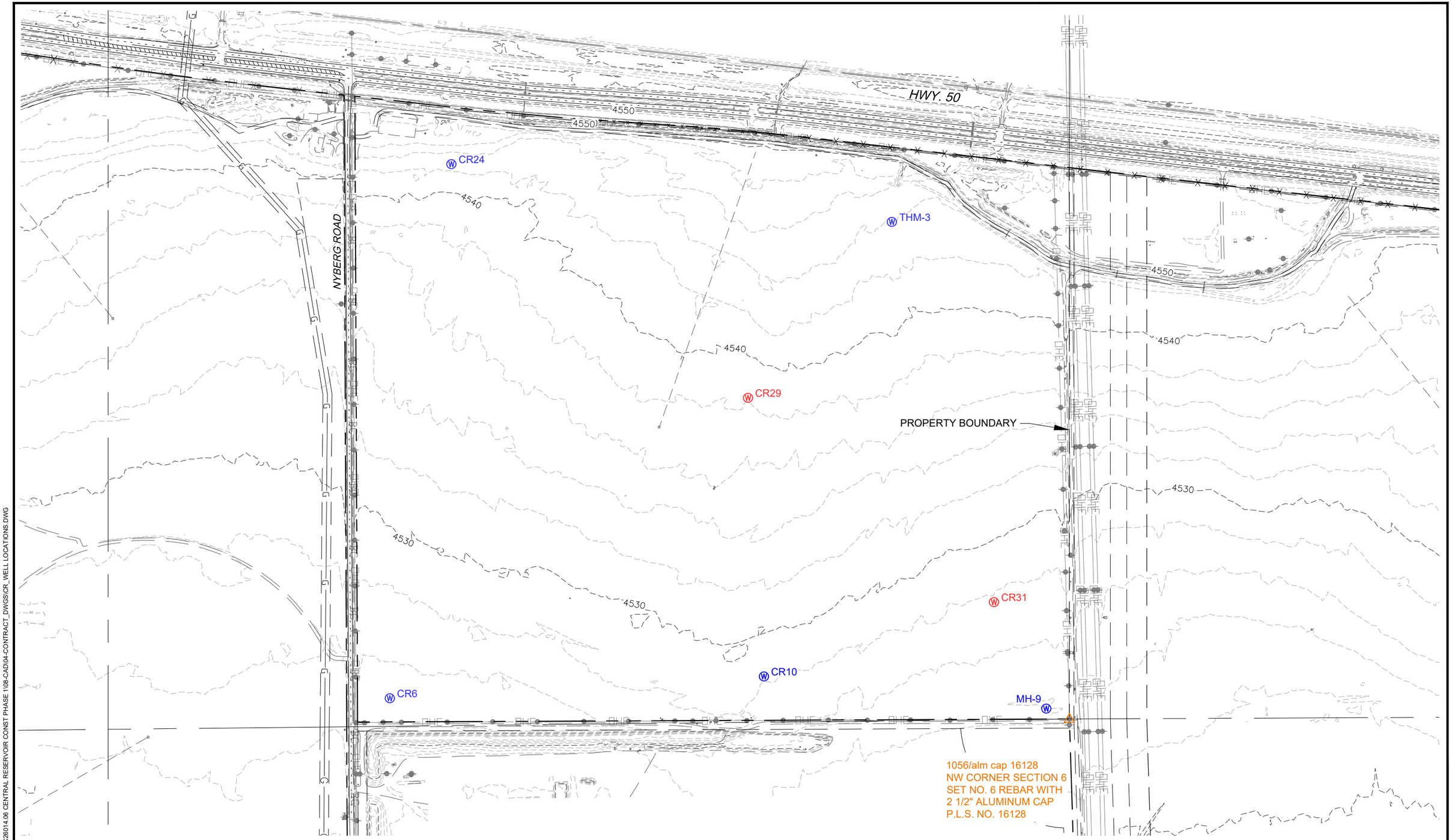
FIGURE NO. 3.3

DATE: 1-7-22

SCALE: NOTED

ATTACHMENT 2

EXISTING WELLS DATA



MAP LEGEND:

- CR-6 WELL LOCATED IN FIELD
- CR-10 WELL NOT FOUND

0 500 1000
SCALE IN FEET

Schnabel ENGINEERING

CENTRAL RESERVOIR

WELL LOCATIONS

FIGURE 1

Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

EXST

WELL PERMIT NUMBER 277131 - - -
DIV. 2 WD 14 DES. BASIN MD

APPLICANT

MARK MORELY
15 N NEVADA AVE
COLORADO SPRINGS, CO 80903-

(719) 471-1742

APPROVED WELL LOCATION
PUEBLO COUNTY
SE 1/4 NW 1/4 Section 36
Township 20 S Range 63 W Sixth P.M.

DISTANCES FROM SECTION LINES
2266 Ft. from North Section Line
1917 Ft. from West Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: 552667 Northing: 4235697

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
4) Approved for the use of an existing well acknowledged for construction under monitoring hole notice MH-46817, and known as CR-24.
5) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept capped and locked at all times except during sampling or measuring.
6) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
7) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 16 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
8) The owner shall mark the well in a conspicuous place with the well permit number and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
9) This well must have been constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules.
10) This well must be located not more than 200 feet from the location specified on this permit.
11) Issuance of this permit does not guarantee that this well can be converted to a production well under a future permit. The ability of this well to be converted to a production well is limited by all governing statutes, rules, regulations, orders, and/or decrees.

NOTICE: This permit has been approved subject to the following changes: The distances from section lines, quarter/quarter, quarter, Section, Township, Range and P.M. were determined from UTM coordinate values provided with the permit application. You are hereby notified that you have the right to appeal the issuance of this permit, by filing a written request with this office within sixty (60) days of the date of issuance, pursuant to the State Administrative Procedures Act. (See Section 24-4-104 through 106, C.R.S.)

APPROVED
SMJ

Dick Wolfe
State Engineer

Sandra Johnson
By

Receipt No. 3626411I DATE ISSUED 04-10-2008 EXPIRATION DATE N/A

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 SHERMAN ST., RM 818, DENVER CO 80203
phone – info: (303) 866-3587 main: (303) 866-3581
Fax: (303) 866-3589 http://www.water.state.co.us

Office Use Only

Form GWS-48 (12/2007)

RECEIVED
FEB 29 2008
WATER RESOURCES
STATE ENGINEER
COLO

MONITORING/OBSERVATION Water Well Permit Application

Review instructions on reverse side prior to completing form.
The form must be completed in black or blue ink or typed.

1. Well Owner Information

Name of well owner: MARK MORELY

Mailing address: 15. N NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip code: 80903

Telephone #: (719 471-1742 | E-Mail (Optional):

2. Type Of Application (check applicable boxes)

☐ Use existing well ☐ Replacement for existing monitoring well:
☒ Construct new well Permit no.:
☐ Other:

3. Refer To (if applicable)

Monitoring hole acknowledgment: MH- 046817 | Well name or #: CR-24

4. Location Of Proposed Well

County: PUEBLO | 1/4 of the ____ 1/4

Section	Township	N or S	Range	E or W	Principal Meridian
		☐☐		☐☐	

Distance of well from section lines (section lines are typically not property lines)
Ft. from ☐ N ☐ S Ft. from ☐ E ☐ W

For replacement wells only – distance and direction from old well to new well
feet direction

Well location address (Include City, State, Zip) ☐ Check if well address is same as Item 1.

Optional: GPS well location information in UTM format
You must check GPS unit for required settings as follows:

Format must be UTM
☐ Zone 12 or ☒ Zone 13
Units must be Meters
Datum must be NAD83
Unit must be set to true north
Was GPS unit checked for above? ☑ YES

Easting 552667
Northing 4235697
Remember to set Datum to NAD83

5. Property Owner Information

Name of property owner: MARK MORELY

Mailing address: 15 N. NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip Code: 80903

Telephone #: 719 471 · 1742

6. Use Of Well MONITORING WELL

Use of this well is limited to monitoring water levels and/or water quality sampling

7. Well Data (proposed)

Total depth: 45 feet | Aquifer (~7.5') ALLUVIAL S & G

8. Consultant Information (if applicable)

Name of contact person: VICTOR DEWOLFE

Company name: DEERE & AULT CONSULTANTS

Mailing address: 600. S. AIRPORT RD A-205

City: LONGMONT | State: CO | Zip Code: 80503

Telephone #: (303 651 - 1468

9. Proposed Well Driller License #(optional):

10. Signature Of Well Owner, Consultant Or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign here (Must be ***original*** signature): V.G. deWolfe | Date: 2/27/08

Print name & title: Victor deWolfe, Geological Engineer

Office Use Only

USGS map name	DWR map no.	Surface elev.

Receipt area only

Trans Number: 3626411 - I
2/29/2008 1:59:12 PM
Debbie Gonzales (20)
Total Trans Amt: $900.00
CHECK
Check Number: 3917
Check Amount: $900.00

DIV ____ WD ____ BA ____ MD ____

FORM NO. GWS-31 04/2005

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587 Main (303) 866-3581
Fax (303) 866-3589 http://www.water.state.co.us

For Office Use Only

APR 1 2 2007

1. WELL PERMIT NUMBER: ~~MH-046817~~ 277131

2. WELL OWNER INFORMATION

NAME OF WELL OWNER: Stonewall Springs Quarry LLC.

MAILING ADDRESS: 15 N. Nevada Ave.

CITY: Colorado Springs STATE: CO ZIP CODE: 80903

TELEPHONE NUMBER: (719) 471-1742

3. WELL LOCATION AS DRILLED: SE1/4, NW1/4, Sec. 36, Twp. 20 ☐ N or ☒ S, Range 63 ☐ E or ☒ W

DISTANCES FROM SEC. LINES: _____ ft. from ☐ N or ☐ S section line and _____ ft. from ☐ E or ☐ W section line.

SUBDIVISION: _____, LOT ____, BLOCK ____, FILING (UNIT) ____

Optional GPS Location: GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to **true N**, ☐ Zone 12 or ☒ Zone 13

Owner's Well Designation: CR-24

Easting: 552667

STREET ADDRESS AT WELL LOCATION: SE of US Highway 50 and Nyberg Road

Northing: 4235697

4. GROUND SURFACE ELEVATION 4542.096 feet

DRILLING METHOD Hollow Stem Auger

DATE COMPLETED 2/7/2007 TOTAL DEPTH 50.25 feet DEPTH COMPLETED 45 feet

5. GEOLOGIC LOG:

Depth	Type	Grain Size	Color	Water Loc.
) - 37.5	Sandy Clay	C, S, M	tan	28.1
37.5 - 45	Sand & Gravel	S, G	brown	
45 - 50.25	Pierre Shale	C	grey	

6. HOLE DIAM (in.)

	From (ft)	To (ft)
8	0	50.25
3		

7. PLAIN CASING:

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
2.375	PVC	0.308	45	50.25
2.375	PVC	0.308	-3	40

PERFORATED CASING: Screen Slot Size (in): 0.02

2.375	PVC	0.038	40	45

8. FILTER PACK:

Material formation

Size S & G

Interval 38-45

9. PACKER PLACEMENT:

Type NA

Depth

10. GROUTING RECORD

Material	Amount	Density	Interval	Placement
NA	NA	NA	NA	NA

Remarks: Bentonite Seal @ 0-38 ft bgs

Metal stick-up in concrete ~3 ft above ground

11. DISINFECTION: Type NA Amt. Used NA

12. WELL TEST DATA: ☐ Check box if Test Data is submitted on Form Number GWS 39 Supplemental Well Test.

TESTING METHOD NA

Static Level 28.1 ft. Date/Time measured: 2/7/2007 @ 12:00 pm, Production Rate NA gpm.

Pumping Level NA ft. Date/Time measured NA, Test Length (hrs) NA.

Remarks: NA

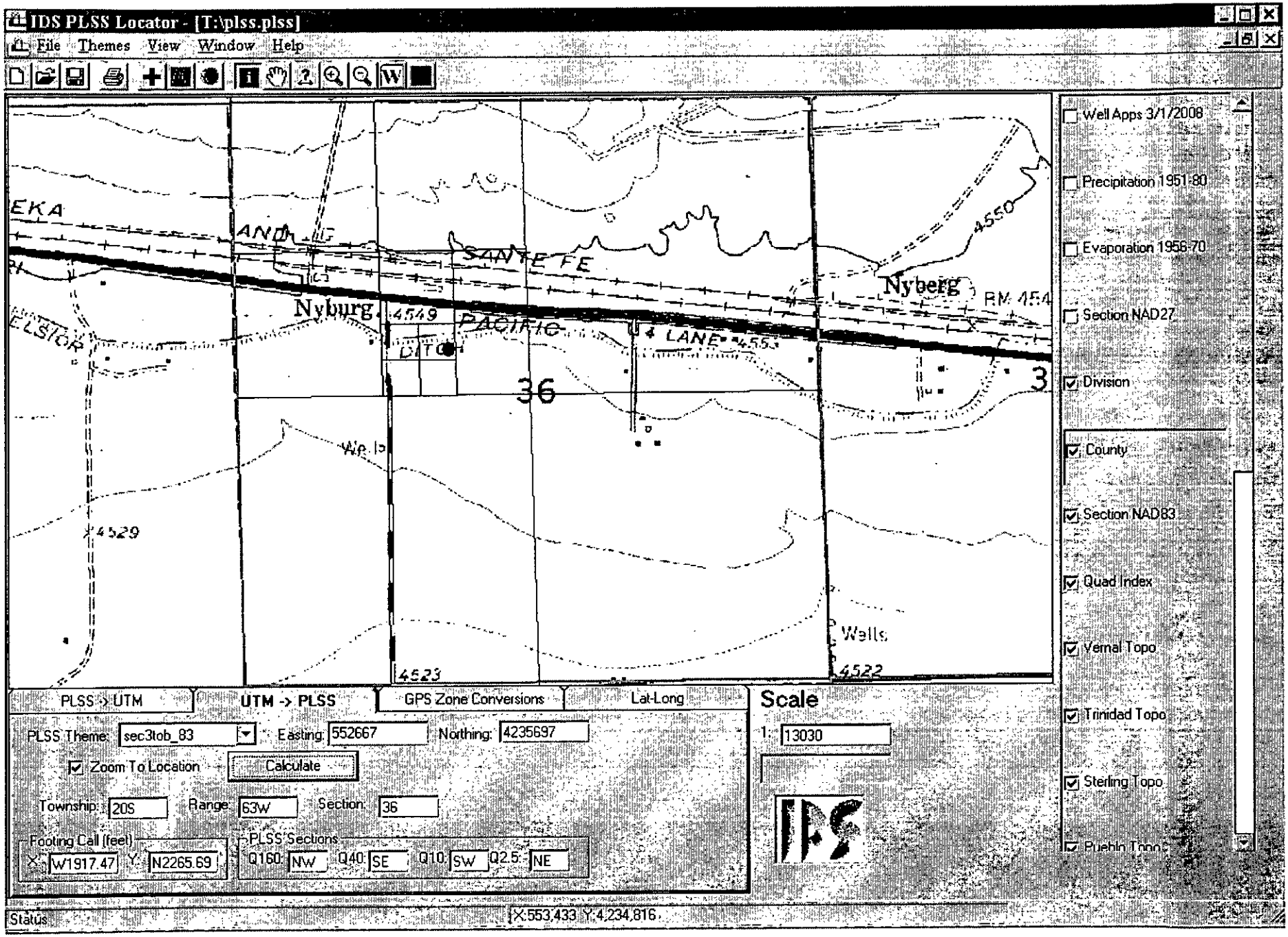
13. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. [The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to $5000 and/or revocation of the contracting license.]

Company Name:	Phone:	License Number:
Deere & Ault Consultants, Inc.	(303) 651-1468	

Mailing Address: 600 S. Airport Rd. Suite A205, Longmont, CO 80503

Signature:	Print Name and Title	Date
VdeG. deWolfe	Victor deWolfe, Geologist	4/9/2007

Morely
3626411-I



Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

EXST

WELL PERMIT NUMBER 277100 - -
DIV. 2 WD 14 DES. BASIN MD

APPLICANT

MORELY COMPANIES
20 BOULDER CRESCENT
2ND FLOOR
COLORADO SPRINGS, CO 80903-

(719) 471-1742

APPROVED WELL LOCATION
PUEBLO COUNTY
SE 1/4 NE 1/4 Section 36
Township 20 S Range 63 W Sixth P.M.

DISTANCES FROM SECTION LINES
2600 Ft. from North Section Line
1000 Ft. from East Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: Northing:

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
4) Approved for the use of an existing well acknowledged for construction under monitoring hole notice MH-46206, and known as THM-3.
5) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept capped and locked at all times except during sampling or measuring.
6) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
7) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 16 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
8) The owner shall mark the well in a conspicuous place with the well permit number and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
9) This well must have been constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules.
10) This well must be located not more than 200 feet from the location specified on this permit.
11) Issuance of this permit does not guarantee that this well can be converted to a production well under a future permit. The ability of this well to be converted to a production well is limited by all governing statutes, rules, regulations, orders, and/or decrees.

APPROVED
SMJ

Dick Wolfe
State Engineer

Sandy Johnson
By

Receipt No. 3626411C DATE ISSUED 04-08-2008 EXPIRATION DATE N/A

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 SHERMAN ST., RM 818, DENVER CO 80203
phone – info: (303) 866-3587 main: (303) 866-3581
Fax: (303) 866-3589 http://www.water.state.co.us

Office Use Only

Form GWS-46 (12/2007)

RECEIVED
FEB 29 2008
WATER RESOURCES
STATE ENGINEER
COLO

9 x 25

MONITORING/OBSERVATION Water Well Permit Application

Review instructions on reverse side prior to completing form.
The form must be completed in black or blue ink or typed.

1. Well Owner Information

Name of well owner: MORELY COMPANIES

Mailing address: 20 BOULDER CRESCENT, 2ND FLOOR

City: COLO. SPRINGS | State: CO | Zip code: 80903

Telephone #: (719 471 - 1742 | E-Mail (Optional):

2. Type Of Application (check applicable boxes)

☐ Use existing well
☒ Construct new well
☐ Other:
☐ Replacement for existing monitoring well:
Permit no.:

3. Refer To (if applicable)

Monitoring hole acknowledgment: MH- 46206
Well name or #: THM-3

4. Location Of Proposed Well

County: PUEBLO
SE 1/4 of the NE 1/4

Section	Township	N or S	Range	E or W	Principal Meridian
36	20	☐ ☒	63	☐ ☒	6 TH

Distance of well from section lines (section lines are typically not property lines)
2600 Ft. from ☒ N ☐ S 1000 Ft. from ☒ E ☐ W

For replacement wells only – distance and direction from old well to new well
feet direction

Well location address (Include City, State, Zip) ☐ Check if well address is same as Item 1.

Optional: GPS well location information in UTM format
You must check GPS unit for required settings as follows:

Format must be UTM
☐ Zone 12 or ☐ Zone 13
Units must be Meters
Datum must be NAD83
Unit must be set to true north
Was GPS unit checked for above? ☐ YES

Easting
Northing
Remember to set Datum to NAD83

5. Property Owner Information

Name of property owner: MARK MORELY

Mailing address: 20 BOULDER CRESCENT 2ND FLOOR

City: COLO. SPRINGS, State: CO, Zip Code: 80903

Telephone #: (719 471 - 1742

6. Use Of Well: MONITORING WELL

Use of this well is limited to monitoring water levels and/or water quality sampling

7. Well Data (proposed)

Total depth: 30 feet | Aquifer: 1'

8. Consultant Information (if applicable)

Name of contact person: ORION CANNON
Company name: DEERE & AULT CONSULTANTS
Mailing address: 600 S. AIRPORT RD. # 205 - A
City: LONGMONT State: CO Zip Code: 80503
Telephone #: (303 651 - 1468

9. Proposed Well Driller License #(optional):

10. Signature Of Well Owner, Consultant Or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign here (Must be *original* signature) | Date: 2-25-08

Print name & title: ORION CANNON, EIT

Office Use Only

USGS map name	DWR map no.	Surface elev.

Receipt area only

Trans Number: 3626411 - C
2/29/2008 1:59:12 PM
Debbie Gonzales (20)
Total Trans Amt: $900.00
CHECK
Check Number: 3917
Check Amount: $900.00

DIV 2 WD 14 BA ____ MD ____

FORM NO. GWS-31 04/2005

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587 Main (303) 866-3581
Fax (303) 866-3589 http://www.water.state.co.us

For Office Use Only

RECEIVED

FEB 29 2008

WATER RESOURCES
STATE ENGINEER
COLO

1. **WELL PERMIT NUMBER:** ~~MH - 46206~~ 277100

2. **WELL OWNER INFORMATION**
NAME OF WELL OWNER: MORELY COMPANIES
MAILING ADDRESS: 20 BOULDER CRESCENT, 2ND FLOOR
CITY: COLORADO SPRINGS STATE: CO ZIP CODE: 80903
TELEPHONE NUMBER: (719) 471 - 1742

3. WELL LOCATION AS DRILLED: SE 1/4, NE 1/4, Sec. 36, Twp. 20 ☐ N or ☒ S, Range 63 ☐ E or ☒ W
DISTANCES FROM SEC. LINES: 2600 ft. from ☒ N or ☐ S section line and 1000 ft. from ☒ E or ☐ W section line.
SUBDIVISION: _____, LOT ____, BLOCK ____, FILING (UNIT) ____
Optional GPS Location: GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to **true N**, ☐ Zone 12 or ☐ Zone 13
Owner's Well Designation: THM-3
Easting: _____
STREET ADDRESS AT WELL LOCATION:
Northing: _____

4. GROUND SURFACE ELEVATION 4543.3 feet
DATE COMPLETED 5-27-2006 TOTAL DEPTH 50 feet
DRILLING METHOD HSA
DEPTH COMPLETED 30 feet

5. GEOLOGIC LOG:

Depth	Type	Grain Size	Color	Water Loc.
0-26	SILTY CLAY		BROWN	
26-27	SAND			
27-50	CLAYSTONE		DK. GRAY	

6. HOLE DIAM (in.)

	From (ft)	To (ft)
~9	0	30
~6	30	50

7. PLAIN CASING:

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
2	PVC	~1/8		

PERFORATED CASING: Screen Slot Size (in): 0.001

2	PVC	~1/8		

8. FILTER PACK:
Material SILICA SAND
Size 10-20
Interval

9. PACKER PLACEMENT:
Type
Depth

10. GROUTING RECORD

Material	Amount	Density	Interval	Placement
BENTONITE	100LB		15-18'	

Remarks:

11. DISINFECTION: Type _____ Amt. Used _____

12. ~~WELL TEST DATA~~: ☐ Check box if Test Data is submitted on Form Number GWS 39 Supplemental Well Test.
TESTING METHOD
Static Level ____ ft. Date/Time measured: _____ Production Rate ____ gpm.
Pumping Level ____ ft. Date/Time measured _____ Test Length (hrs) ____
Remarks:

13. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. [The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to $5000 and/or revocation of the contracting license.]

Company Name:	Phone:	License Number:
DEERE & AULT CONSULTANTS	(303) 651-1468	

Mailing Address: 609 S. AIRPORT RD. LONGMONT, CO 80503

Signature:	Print Name and Title	Date
	ORION CANNON, EIT	2/25/08

Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

EXST

WELL PERMIT NUMBER 277132 - - -
DIV. 2 WD 14 DES. BASIN MD

APPLICANT

MARK MORELY
15 N NEVADA AVE
COLORADO SPRINGS, CO 80903-

(719) 471-1742

APPROVED WELL LOCATION
PUEBLO COUNTY
NW 1/4 SE 1/4 Section 36
Township 20 S Range 63 W Sixth P.M.

DISTANCES FROM SECTION LINES
1731 Ft. from South Section Line
1782 Ft. from East Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: 553160 Northing: 4235299

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
4) Approved for the use of an existing well acknowledged for construction under monitoring hole notice MH-46816, and known as CR-29.
5) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept capped and locked at all times except during sampling or measuring.
6) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
7) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 16 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
8) The owner shall mark the well in a conspicuous place with the well permit number and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
9) This well must have been constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules.
10) This well must be located not more than 200 feet from the location specified on this permit.
11) Issuance of this permit does not guarantee that this well can be converted to a production well under a future permit. The ability of this well to be converted to a production well is limited by all governing statutes, rules, regulations, orders, and/or decrees.

NOTICE: This permit has been approved subject to the following changes: The distances from section lines, quarter/quarter, quarter, Section, Township, Range and P.M. were determined from UTM coordinate values provided with the permit application. You are hereby notified that you have the right to appeal the issuance of this permit, by filing a written request with this office within sixty (60) days of the date of issuance, pursuant to the State Administrative Procedures Act. (See Section 24-4-104 through 106, C.R.S.)

APPROVED
SMJ

Dick Wolfe
State Engineer

Sandy Johnson
By

Receipt No. 3626411H DATE ISSUED 04-10-2008 EXPIRATION DATE N/A

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 SHERMAN ST., RM 818, DENVER CO 80203
phone – info: (303) 866-3587 main: (303) 866-3581
Fax: (303) 866-3589 http://www.water.state.co.us

Office Use Only

Form GWS-46 (12/2007)

RECEIVED

FEB 29 2008

WATER RESOURCES
STATE ENGINEER
COLO

MONITORING/OBSERVATION
Water Well Permit Application

Review instructions on reverse side prior to completing form.
The form must be completed in black or blue ink or typed.

1. Well Owner Information

Name of well owner: MARK MORELY

Mailing address: 15. N NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip code: 80903

Telephone #: (719 471 · 1742 | E-Mail (Optional):

2. Type Of Application (check applicable boxes)

- ☐ Use existing well
- ☒ Construct new well
- ☐ Other:
- ☐ Replacement for existing monitoring well:
  Permit no.:

3. Refer To (if applicable)

Monitoring hole acknowledgment: MH- 046816 | Well name or #: CR-29

4. Location Of Proposed Well

County: PUEBLO

_____ 1/4 of the _____ 1/4

Section	Township	N or S	Range	E or W	Principal Meridian
		☐ ☐		☐ ☐	

Distance of well from section lines (section lines are typically not property lines)

Ft. from ☐ N ☐ S Ft. from ☐ E ☐ W

For replacement wells only – distance and direction from old well to new well

feet direction

Well location address (include City, State, Zip) ☐ Check if well address is same as Item 1.

Optional: GPS well location information in UTM format
You must check GPS unit for required settings as follows:

Format must be UTM
☐ Zone 12 or ☒ Zone 13
Units must be Meters
Datum must be NAD83
Unit must be set to true north
Was GPS unit checked for above? ☑ YES

Easting: 553160
Northing: 4235299

Remember to set Datum to NAD83

5. Property Owner Information

Name of property owner: MARK MORELY

Mailing address: 15 N. NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip Code: 80903

Telephone #: 719 471 · 1742

6. Use Of Well: MONITORING WELL

Use of this well is limited to monitoring water levels and/or water quality sampling

7. Well Data (proposed)

Total depth: 50 feet | Aquifer: (~29') ALLUVIAL S & G

8. Consultant Information (if applicable)

Name of contact person: VICTOR DEWOLFE

Company name: DEERE & AULT CONSULTANTS

Mailing address: 600. S. AIRPORT RD A-205

City: LONGMONT | State: CO | Zip Code: 80503

Telephone #: (303 651 · 1468

9. Proposed Well Driller License # (optional):

10. Signature Of Well Owner, Consultant Or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign here (Must be ***original*** signature): V.G. deWolfe | Date: 2/27/08

Print name & title: Victor deWolfe, Geological Engineer

Office Use Only

USGS map name	DWR map no	Surface elev.

Receipt area only

Trans Number: 3626411 - H
2/29/2008 1:59:12 PM
Debbie Gonzales (20)
Total Trans Amt: $900.00
CHECK
Check Number: 3917
Check Amount: $900.00

DIV ____ WD ____ BA ____ MD ____

FORM NO. GWS-31 04/2005

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587 Main (303) 866-3581
Fax (303) 866-3589 http://www.water.state.co.us

For Office Use Only

APR 1 0 2007

WELL PERMIT NUMBER: ~~MH-046816~~ 27713R

WELL OWNER INFORMATION

NAME OF WELL OWNER: Stonewall Springs Quarry LLC.

MAILING ADDRESS: 15 N. Nevada Ave.

CITY: Colorado Springs STATE: CO ZIP CODE: 80903

TELEPHONE NUMBER: (719) 471-1742

WELL LOCATION AS DRILLED: NW1/4, SE1/4, Sec. 36, Twp. 20 ☐ N or ☒ S, Range 63 ☐ E or ☒ W

DISTANCES FROM SEC. LINES: _____ ft. from ☐ N or ☐ S section line and _____ ft. from ☐ E or ☐ W section line.

SUBDIVISION: _____, LOT ____, BLOCK ____, FILING (UNIT) ____

Owner's Well Designation: CR-29

Optional GPS Location: GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to true **N**, ☐ Zone 12 or ☒ Zone 13

Easting: 553160

STREET ADDRESS AT WELL LOCATION: SE of US Highway 50 and Nyberg Road

Northing: 4235299

GROUND SURFACE ELEVATION 4538.176 feet DRILLING METHOD Hollow Stem Auger

DATE COMPLETED 2/8/2007 TOTAL DEPTH 55 feet DEPTH COMPLETED 50 feet

GEOLOGIC LOG:

Depth	Type	Grain Size	Color	Water Loc.
) - 18	Sandy Clay	C, S, M	tan	
8 - 22.5	Sand & Gravel	S, G	brown	
2.5-27.5	Silty Clay	C, M	grey	
7.5 - 51	Sand & Gravel	S, G	brown	
51-55	Pierre Shale	C	grey	

6. HOLE DIAM (in.)

	From (ft)	To (ft)
8	0	55

7. PLAIN CASING:

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
2.375	PVC	0.308	51	55
2.375	PVC	0.308	-3	40

PERFORATED CASING: Screen Slot Size (in): 0.02

2.375	PVC	0.038	40	50

8. FILTER PACK:

Material	formation
Size	S & G
Interval	29 - 50

9. PACKER PLACEMENT:

Type NA

Depth

10. GROUTING RECORD

Material	Amount	Density	Interval	Placement
NA	NA	NA	NA	NA

Remarks: Bentonite Seal @ 0-29 ft bgs

Metal stick-up in concrete ~3 ft above ground

11. DISINFECTION: Type NA Amt. Used NA

12. WELL TEST DATA: ☐ Check box if Test Data is submitted on Form Number GWS 39 Supplemental Well Test.

TESTING METHOD NA

Static Level 26.87 ft. Date/Time measured: 2/8/2007 @ 12:30 pm, Production Rate NA gpm.

Pumping Level NA ft. Date/Time measured NA, Test Length (hrs) NA.

Remarks: NA

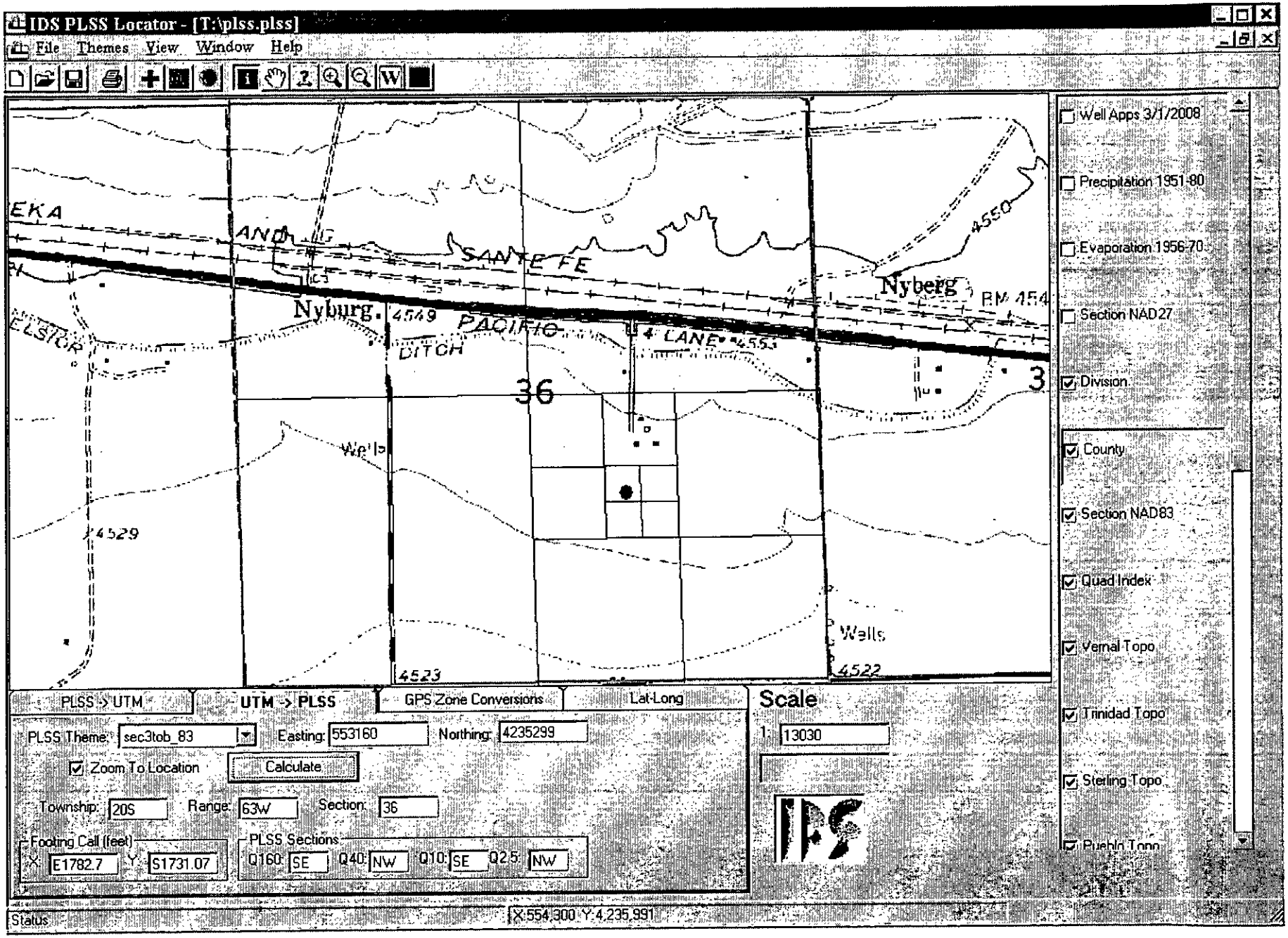
13. *I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. [The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to $5000 and/or revocation of the contracting license.]*

Company Name:	Phone:	License Number:
Deere & Ault Consultants, Inc.	(303) 651-1468	

Mailing Address: 600 S. Airport Rd. Suite A205, Longmont, CO 80503

Signature:	Print Name and Title	Date
VG. deWolfe	Victor deWolfe, Geologist	4/9/2007

Morely
3626411-H



SEP 15 1960 8-27-60

Form F (Rev.)
7-57 5M

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF THE STATE ENGINEER, GROUND WATER SECTION

RECEIVED
APR 28 1960
GROUND WATER SECT.

SOLDA INV. CO. REGISTRATION NO. 12920 OF WELL #4

Registrant ~~Harry & Louis Cirelli~~ 3293 S. COLUMBINE, DENVER

P.O. Address ~~38 North Avondale~~, Colo.

Date April 1 1960

WELL DATA

Depth 49' ft. Diameter 24 in.

Casing : 21 ft. Plain; 28 ft. Perfor.

Static Water Level 19' ft. from top

Yield 550 (gpm)(~~cfs~~) from 43 ft.

Used for Irrigation on/at

SE¼ Sec. 36; T20, R63 - NE¼ Sec. 1 - T21S R62W - 6th PM
(legal description of land or site)

Water conveyed by Ditch, size 3½ ft

PUMP DATA

Type Turbine Size 6"

Driven by 7½ H.P. at 1800 RPM

Well was first used ~~prior~~ 1940, 19__

for Irrigation using 550 cfs gpm

Well enlarged ~~—~~, 19__ to
deepened

~~—~~ (gpm)(cfs)(ft)

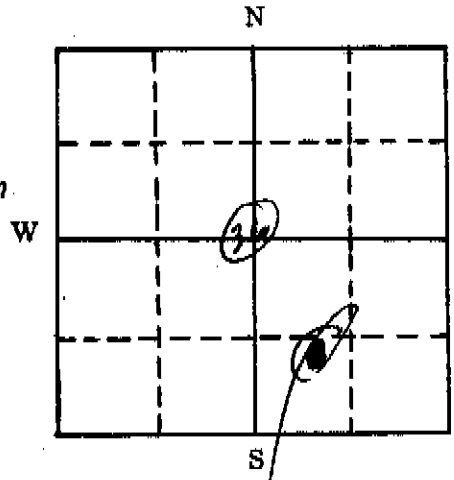
LOG SHOULD BE GIVEN ON REVERSE SIDE IF AVAILABLE

WELL LOCATION

County Pueblo 51

SW¼ SE¼ Section 36

Twp. 20S, Rge 63W, 6th PM



WELL TO BE LOCATED AS ACCURATELY AS POSSIBLE WITHIN A SMALL SQUARE WHICH REPRESENTS 40 ACRES; OR IF IN A TOWN OR SUBDIVISION FILL IN THE FOLLOWING:

Town or Subdivision

Street address or Lot and Block

The above well (has) (has not) been registered in the Office of the State Engineer prior to May 1, 1957. If Registered give Filing No. _____.

If NOT Registered prior to May 1, 1957, a $5.00 filing fee accompanies this form.

The above statements are true and correct to the best of my knowledge and belief.

Subscribed and Sworn before me

this 1st day of April, 1960.

Harry & Louis Cirelli

By Louis Cirelli
Registrant

My commission expires My Commission Expires July 8, 1962

(SEAL) Marjorie Douglas
Notary Public

FOR STATE ENGINEER'S USE

Located in 2-14 district, Pueblo County for IRRIGATION APR 28 1960

Registration No. 431 in 2-14, on Apr 28, 1960.

COLORADO
Division of Water Resources
Department of Natural Resources

WELL PERMIT NUMBER 12920-R
RECEIPT NUMBER 9095191

ORIGINAL PERMIT APPLICANT(S)

STONEWALL SPRINGS QUARRY LLC

APPROVED WELL LOCATION

Water Division: 2 Water District: 14
Designated Basin: N/A
Management District: N/A
County: PUEBLO
Parcel Name: N/A
Physical Address: N/A

SW 1/4 SE 1/4 Section 36 Township 20.0 S Range 63.0 W Sixth P.M.

UTM COORDINATES (Meters, Zone: 13, NAD83)

Easting: 552889.6 Northing: 4235582.0

REGISTRATION OF EXISTING WELL

See the original well permit file for permit conditions of approval and additional details. The original permit file can be viewed using the Well Permit Search Tool at www.water.state.co.us

See Original Permit

Issued By

Date Issued: 4/28/1960
Expiration Date: N/A

PERMIT HISTORY

06-01-2020	CHANGE IN OWNER NAME/MAILING ADDRESS. CHANGED TO TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)
05-05-2006	CHANGE IN OWNER NAME/MAILING ADDRESS

Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

EXST

WELL PERMIT NUMBER 277133 - - -
DIV. 2 WD 14 DES. BASIN MD

APPLICANT

MARK MORLEY
15 N NEVADA AVE
COLORADO SPRINGS, CO 80903-

(719) 471-1742

APPROVED WELL LOCATION
PUEBLO COUNTY
SE 1/4 SW 1/4 Section 36
Township 20 S Range 63 W Sixth P.M.

DISTANCES FROM SECTION LINES
126 Ft. from South Section Line
1484 Ft. from West Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: 552557 Northing: 4234804

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
4) Approved for the use of an existing well acknowledged for construction under monitoring hole notice MH-46813, and known as CR-6.
5) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept capped and locked at all times except during sampling or measuring.
6) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
7) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 16 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
8) The owner shall mark the well in a conspicuous place with the well permit number and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
9) This well must have been constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules.
10) This well must be located not more than 200 feet from the location specified on this permit.
11) Issuance of this permit does not guarantee that this well can be converted to a production well under a future permit. The ability of this well to be converted to a production well is limited by all governing statutes, rules, regulations, orders, and/or decrees.

NOTICE: This permit has been approved subject to the following changes: The distances from section lines, quarter/quarter, quarter, Section, Township, Range and P.M. were determined from UTM coordinate values provided with the permit application. You are hereby notified that you have the right to appeal the issuance of this permit, by filing a written request with this office within sixty (60) days of the date of issuance, pursuant to the State Administrative Procedures Act. (See Section 24-4-104 through 106, C.R.S.)

APPROVED
SMJ

Dick Wolfe
State Engineer

Sandy Johnson
By

Receipt No. 3626411E DATE ISSUED 04-10-2008 EXPIRATION DATE N/A

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 SHERMAN ST., RM 818, DENVER CO 80203
phone – info: (303) 866-3587 main: (303) 866-3581
Fax: (303) 866-3589 http://www.water.state.co.us

Office Use Only

Form GWS-46 (12/2007)

RECEIVED
FEB 29 2008
WATER RESOURCES
STATE ENGINEER
COLO

MONITORING/OBSERVATION Water Well Permit Application

Review instructions on reverse side prior to completing form.
The form must be completed in black or blue ink or typed.

1. Well Owner Information

Name of well owner: MARK MORELY

Mailing address: 15. N NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip code: 80903

Telephone #: (719 471-1742 | E-Mail (Optional):

2. Type Of Application (check applicable boxes)

☐ Use existing well ☐ Replacement for existing monitoring well:
☒ Construct new well Permit no.:
☐ Other:

3. Refer To (if applicable)

Monitoring hole acknowledgment: MH- 046813 | Well name or #: CR-6

4. Location Of Proposed Well

County: PUEBLO | 1/4 of the 1/4

Section	Township	N or S	Range	E or W	Principal Meridian
		☐ ☐		☐ ☐	

Distance of well from section lines (section lines are typically not property lines)
Ft. from ☐ N ☐ S Ft. from ☐ E ☐ W

For replacement wells only – distance and direction from old well to new well
feet direction

Well location address (Include City, State, Zip) ☐ Check if well address is same as Item 1.

Optional: GPS well location information in UTM format
You must check GPS unit for required settings as follows:

Format must be UTM
☐ Zone 12 or ☒ Zone 13
Units must be Meters
Datum must be NAD83
Unit must be set to true north
Was GPS unit checked for above? ☑ YES

Easting 552557
Northing 4234804
Remember to set Datum to NAD83

5. Property Owner Information

Name of property owner: MARK MORELY

Mailing address: 15 N. NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip Code: 80903

Telephone #: 719 471 · 1742

6. Use Of Well MONITORING WELL

Use of this well is limited to monitoring water levels and/or water quality sampling

7. Well Data (proposed)

Total depth: 37 feet | Aquifer: ALLUVIAL S & G

8. Consultant Information (if applicable)

Name of contact person: VICTOR DEWOLFE

Company name: DEERE & AULT CONSULTANTS

Mailing address: 600. S. AIRPORT RD A-205

City: LONGMONT | State: CO | Zip Code: 80503

Telephone #: (303 651 - 1468

9. Proposed Well Driller License # (optional):

10. Signature Of Well Owner, Consultant Or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign here (Must be *original* signature): VG. deWolfe | Date: 2/27/08

Print name & title: Victor deWolfe, Geological Engineer

Office Use Only

USGS map name	DWR map no.	Surface elev.

Receipt area only

Trans Number: 3626411 - E
2/29/2008 1:59:12 PM
Debbie Gonzales (20)
Total Trans Amt: $900.00
CHECK
Check Number: 3917
Check Amount: $900.00

DIV ____ WD ____ BA ____ MD ____

FORM NO. GWS-31 04/2005

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587 Main (303) 866-3581
Fax (303) 866-3589 http://www.water.state.co.us

For Office Use Only

RECEIVED

APR 1 0 2007

WATER [illegible]

1. WELL PERMIT NUMBER: ~~MH 046813~~ 277133

2. WELL OWNER INFORMATION

NAME OF WELL OWNER: Stonewall Springs Quarry LLC.

MAILING ADDRESS: 15 N. Nevada Ave.

CITY: Colorado Springs STATE: CO ZIP CODE: 80903

TELEPHONE NUMBER: (719) 471-1742

3. WELL LOCATION AS DRILLED: SE1/4, SW1/4, Sec. 36, Twp. 20 ☐ N or ☒ S, Range 63 ☐ E or ☒ W

DISTANCES FROM SEC. LINES: _____ ft. from ☐ N or ☐ S section line and _____ ft. from ☐ E or ☐ W section line.

SUBDIVISION: _____, LOT ____, BLOCK ____, FILING (UNIT) ____

Optional GPS Location: GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to **true N**, ☐ Zone 12 or ☒ Zone 13

Owner's Well Designation: CR-6

Easting: 552557

STREET ADDRESS AT WELL LOCATION: SE of US Highway 50 and Nyberg Road

Northing: 4234804

4. GROUND SURFACE ELEVATION 4525.295 feet DRILLING METHOD Hollow Stem Auger

DATE COMPLETED 2/20/2007 TOTAL DEPTH 61 feet DEPTH COMPLETED 37 feet

5. GEOLOGIC LOG:

Depth	Type	Grain Size	Color	Water Loc.
0 - 7.5	Sandy Clay	C, S, M	tan	
7.5 - 36	Sand & Gravel	S, G	brown	13.03
36 - 61	Pierre Shale	C	grey	

6. HOLE DIAM (in.)

	From (ft)	To (ft)
8	0	40
3	40	60

7. PLAIN CASING:

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
2.375	PVC	0.308	37	57
2.375	PVC	0.308	-3	27

PERFORATED CASING: Screen Slot Size (in): 0.02

2.375	PVC	0.038	27	37

8. FILTER PACK:

Material formation

Size S & G

Interval 14-37

9. PACKER PLACEMENT:

Type NA

Depth

10. GROUTING RECORD

Material	Amount	Density	Interval	Placement
NA	NA	NA	NA	NA

Remarks: Bentonite Seal @ 0-14 ft bgs

Metal stick-up in concrete ~3 ft above ground

11. DISINFECTION: Type NA Amt. Used NA

12. WELL TEST DATA: ☐ Check box if Test Data is submitted on Form Number GWS 39 Supplemental Well Test.

TESTING METHOD NA

Static Level 13.03 ft. Date/Time measured: 2/20/2007 @ 3pm, Production Rate NA gpm.

Pumping Level NA ft. Date/Time measured NA, Test Length (hrs) NA.

Remarks: NA

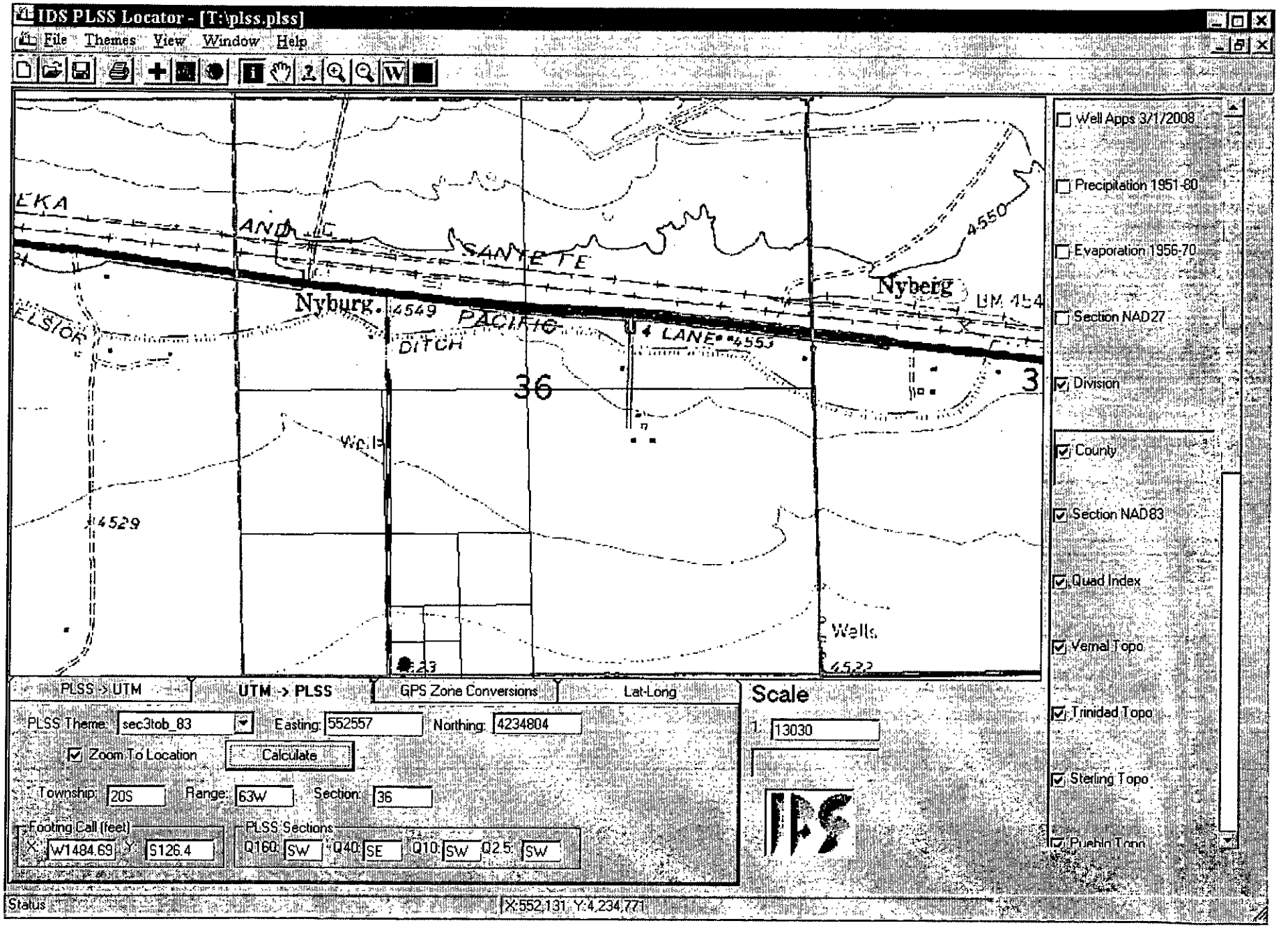
13. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. [The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to $5000 and/or revocation of the contracting license.]

Company Name:	Phone:	License Number:
Deere & Ault Consultants, Inc.	(303) 651-1468	

Mailing Address: 600 S. Airport Rd. Suite A205, Longmont, CO 80503

Signature:	Print Name and Title	Date
V.G. Wolfe	Victor deWolfe, Geologist	4/9/2007

Morely
3626411-E



Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

EXST

WELL PERMIT NUMBER 277135 - - -
DIV. 2 WD 14 DES. BASIN MD

APPLICANT

MARK MORELY
15 N NEVADA AVE
COLORADO SPRINGS, CO 80903-

(719) 471-1742

APPROVED WELL LOCATION
PUEBLO COUNTY
SW 1/4 SE 1/4 Section 36
Township 20 S Range 63 W Sixth P.M.

DISTANCES FROM SECTION LINES
198 Ft. from South Section Line
1747 Ft. from East Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: 553185 Northing: 4234832

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
4) Approved for the use of an existing well acknowledged for construction under monitoring hole notice MH-46814, and known as CR-10.
5) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept capped and locked at all times except during sampling or measuring.
6) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
7) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 16 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
8) The owner shall mark the well in a conspicuous place with the well permit number and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
9) This well must have been constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules.
10) This well must be located not more than 200 feet from the location specified on this permit.
11) Issuance of this permit does not guarantee that this well can be converted to a production well under a future permit. The ability of this well to be converted to a production well is limited by all governing statutes, rules, regulations, orders, and/or decrees.

NOTICE: This permit has been approved subject to the following changes: The distances from section lines, quarter/quarter, quarter, Section, Township, Range and P.M. were determined from UTM coordinate values provided with the permit application. You are hereby notified that you have the right to appeal the issuance of this permit, by filing a written request with this office within sixty (60) days of the date of issuance, pursuant to the State Administrative Procedures Act. (See Section 24-4-104 through 106, C.R.S.)

APPROVED
SMJ

Dick Wolfe
State Engineer

Sandy Pason
By

Receipt No. 3626411F DATE ISSUED 04-10-2008 EXPIRATION DATE N/A

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 SHERMAN ST., RM 818, DENVER CO 80203
phone – info: (303) 866-3587 main: (303) 866-3581
Fax: (303) 866-3589 http://www.water.state.co.us

Office Use Only

Form GWS-46 (12/2007)

RECEIVED
FEB 29 2008
WATER RESOURCES
STATE ENGINEER
COLO

MONITORING/OBSERVATION Water Well Permit Application

Review instructions on reverse side prior to completing form.
The form must be completed in black or blue ink or typed.

1. Well Owner Information

Name of well owner: MARK MORELY

Mailing address: 15. N NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip code: 80903

Telephone #: (719 471-1742 | E-Mail (Optional):

2. Type Of Application (check applicable boxes)

☐ Use existing well ☐ Replacement for existing monitoring well:
☒ Construct new well Permit no.:
☐ Other:

3. Refer To (if applicable)

Monitoring hole acknowledgment: MH- 046814 | Well name or #: CR-10

4. Location Of Proposed Well

County: PUEBLO

_____ 1/4 of the _____ 1/4

Section	Township	N or S	Range	E or W	Principal Meridian
		☐		☐	

Distance of well from section lines (section lines are typically not property lines)
Ft. from ☐ N ☐ S Ft. from ☐ E ☐ W

For replacement wells only – distance and direction from old well to new well
feet direction

Well location address (Include City, State, Zip) ☐ Check if well address is same as Item 1.

Optional: GPS well location information in UTM format
You must check GPS unit for required settings as follows:

Format must be UTM
☐ Zone 12 or ☒ Zone 13
Units must be Meters
Datum must be NAD83
Unit must be set to true north
Was GPS unit checked for above? ☑ YES

Easting 553185
Northing 4234832
Remember to set Datum to NAD83

5. Property Owner Information

Name of property owner: MARK MORELY

Mailing address: 15 N. NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip Code: 80903

Telephone #: 719 471 · 1742

6. Use Of Well MONITORING WELL

Use of this well is limited to monitoring water levels and/or water quality sampling

7. Well Data (proposed)

Total depth: 44 feet | Aquifer (~31') ALLUVIAL S & G

8. Consultant Information (if applicable)

Name of contact person: VICTOR DEWOLFE

Company name: DEERE & AULT CONSULTANTS

Mailing address: 600. S. AIRPORT RD A-205

City: LONGMONT | State: CO | Zip Code: 80503

Telephone #: (303 651 · 1468

9. Proposed Well Driller License #(optional):

10. Signature Of Well Owner, Consultant Or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign here (Must be ***original*** signature): V.S. deWolfe | Date: 2/27/08

Print name & title: Victor deWolfe, Geological Engineer

Office Use Only

USGS map name	DWR map no.	Surface elev.

Receipt area only

Trans Number: 3626411
2/29/2008 1:59:12 PM
Debbie Gonzales (20)
Total Trans Amt: $900.00
CHECK
Check Number: 3917
Check Amount: $900.00

DIV ____ WD ____ BA ____ MD ____

FORM NO. GWS-31 04/2005

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587 Main (303) 866-3581
Fax (303) 866-3589 http://www.water.state.co.us

For Office Use Only

RECEIVED

APR 1 0 2007

WATER

1. WELL PERMIT NUMBER: ~~MH-040814~~ 277135

2. WELL OWNER INFORMATION

NAME OF WELL OWNER: Stonewall Springs Quarry LLC.

MAILING ADDRESS: 15 N. Nevada Ave.

CITY: Colorado Springs STATE: CO ZIP CODE: 80903

TELEPHONE NUMBER: (719) 471-1742

3. WELL LOCATION AS DRILLED: SW1/4, SE1/4, Sec. 36, Twp. 20 ☐ N or ☒ S, Range 63 ☐ E or ☒ W

DISTANCES FROM SEC. LINES: _____ ft. from ☐ N or ☐ S section line and _____ ft. from ☐ E or ☐ W section line.

SUBDIVISION: _____, LOT ____, BLOCK ____, FILING (UNIT) ____

Optional GPS Location: GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to **true N**, ☐ Zone 12 or ☒ Zone 13

Owner's Well Designation: CR-10

Easting: 553185

STREET ADDRESS AT WELL LOCATION: SE of US Highway 50 and Nyberg Road

Northing: 4234832

4. GROUND SURFACE ELEVATION 4528.365 feet DRILLING METHOD Hollow Stem Auger

DATE COMPLETED 2/19/2007 TOTAL DEPTH 65.13 feet DEPTH COMPLETED 44 feet

5. GEOLOGIC LOG:

Depth	Type	Grain Size	Color	Water Loc.
) - 11	Sandy Clay	C, S, M	tan	
11 - 42	Sand & Gravel	S, G	brown	17.6
42 - 65	Pierre Shale	C	grey	

6. HOLE DIAM (in.)

	From (ft)	To (ft)
8	0	50
3	50	64

7. PLAIN CASING:

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
2.375	PVC	0.308	44	64
2.375	PVC	0.308	-3	34

PERFORATED CASING: Screen Slot Size (in): 0.02

2.375	PVC	0.038	34	44

8. FILTER PACK:
Material formation
Size S & G
Interval 16-44

9. PACKER PLACEMENT:
Type NA
Depth

10. GROUTING RECORD

Material	Amount	Density	Interval	Placement
NA	NA	NA	NA	NA

Remarks: Bentonite Seal @ 0-18 ft bgs
Metal stick-up in concrete ~3 ft above ground

11. DISINFECTION: Type NA Amt. Used NA

12. WELL TEST DATA: ☐ Check box if Test Data is submitted on Form Number GWS 39 Supplemental Well Test.

TESTING METHOD NA

Static Level 17.6 ft. Date/Time measured: 2/19/2007 @ 12:20 pm, Production Rate NA gpm.

Pumping Level NA ft. Date/Time measured NA, Test Length (hrs) NA.

Remarks: NA

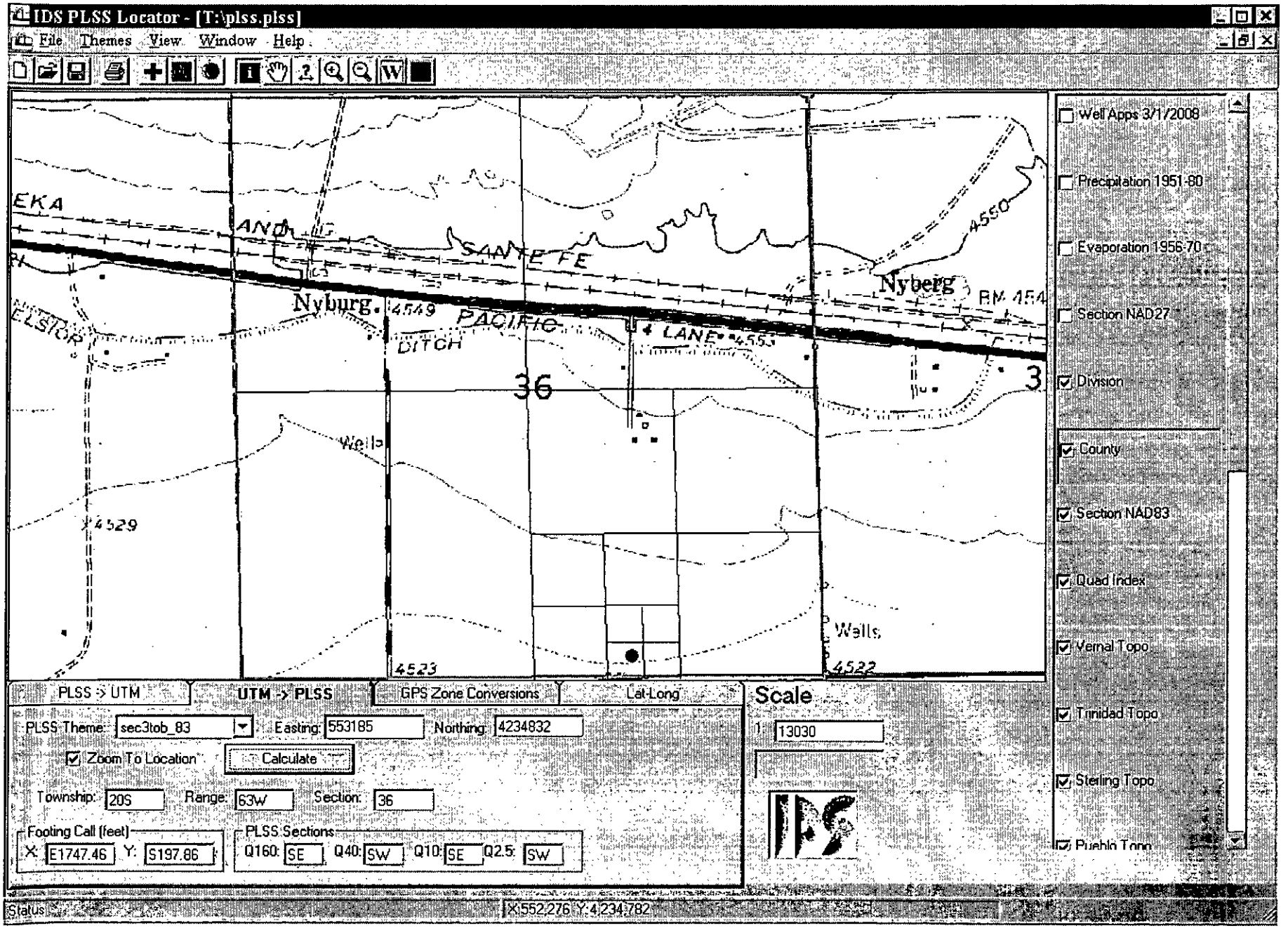
13. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. [The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to $5000 and/or revocation of the contracting license.]

Company Name:	Phone:	License Number:
Deere & Ault Consultants, Inc.	(303) 651-1468	

Mailing Address: 600 S. Airport Rd. Suite A205, Longmont, CO 80503

Signature:	Print Name and Title	Date
V.G. DeWolfe	Victor deWolfe, Geologist	4/9/2007

Morely
3626411-F



Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

EXST

WELL PERMIT NUMBER 277134 - - -
DIV. 2 WD 14 DES. BASIN MD

APPLICANT

MARK MORELY
15 N NEVADA AVE
COLORADO SPRINGS, CO 80903-

(719) 471-1742

APPROVED WELL LOCATION
PUEBLO COUNTY
SE 1/4 SE 1/4 Section 36
Township 20 S Range 63 W Sixth P.M.

DISTANCES FROM SECTION LINES
602 Ft. from South Section Line
472 Ft. from East Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: 553570 Northing: 4234959

PERMIT TO USE AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
4) Approved for the use of an existing well acknowledged for construction under monitoring hole notice MH-46815, and known as CR-31.
5) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept capped and locked at all times except during sampling or measuring.
6) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
7) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 16 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
8) The owner shall mark the well in a conspicuous place with the well permit number and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
9) This well must have been constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules.
10) This well must be located not more than 200 feet from the location specified on this permit.
11) Issuance of this permit does not guarantee that this well can be converted to a production well under a future permit. The ability of this well to be converted to a production well is limited by all governing statutes, rules, regulations, orders, and/or decrees.

NOTICE: This permit has been approved subject to the following changes: The distances from section lines, quarter/quarter, quarter, Section, Township, Range and P.M. were determined from UTM coordinate values provided with the permit application. You are hereby notified that you have the right to appeal the issuance of this permit, by filing a written request with this office within sixty (60) days of the date of issuance, pursuant to the State Administrative Procedures Act. (See Section 24-4-104 through 106, C.R.S.)

APPROVED
SMJ

Dick Wolfe
State Engineer

Sandy Johnson
By

Receipt No. 3626411G DATE ISSUED 04-10-2008 EXPIRATION DATE N/A

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 SHERMAN ST., RM 818, DENVER CO 80203
phone – info: (303) 866-3587 main: (303) 866-3581
Fax: (303) 866-3589 http://www.water.state.co.us

Office Use Only

Form GWS-46 (12/2007)

RECEIVED
FEB 29 2008
WATER RESOURCES
STATE ENGINEER
COLO

MONITORING/OBSERVATION Water Well Permit Application

Review instructions on reverse side prior to completing form.
The form must be completed in black or blue ink or typed.

1. Well Owner Information

Name of well owner: MARK MORELY

Mailing address: 15. N NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip code: 80903

Telephone #: (719 471-1742 | E-Mail (Optional):

2. Type Of Application (check applicable boxes)

- ☐ Use existing well
- ☒ Construct new well
- ☐ Other:
- ☐ Replacement for existing monitoring well:
  Permit no.:

3. Refer To (if applicable)

Monitoring hole acknowledgment: MH- 046815

Well name or #: CR-31

4. Location Of Proposed Well

County: PUEBLO

_____ 1/4 of the _____ 1/4

Section	Township	N or S	Range	E or W	Principal Meridian
		☐☐		☐☐	

Distance of well from section lines (section lines are typically not property lines)

Ft. from ☐ N ☐ S Ft. from ☐ E ☐ W

For replacement wells only – distance and direction from old well to new well

feet direction

Well location address (Include City, State, Zip) ☐ Check if well address is same as Item 1.

Optional: GPS well location information in UTM format
You must check GPS unit for required settings as follows:

Format must be UTM
☐ Zone 12 or ☒ Zone 13
Units must be Meters
Datum must be NAD83
Unit must be set to true north
Was GPS unit checked for above? ☑ YES

Easting 553570
Northing 4234959
Remember to set Datum to NAD83

5. Property Owner Information

Name of property owner: MARK MORELY

Mailing address: 15 N. NEVADA AVE.

City: COLO. SPRINGS | State: CO | Zip Code: 80903

Telephone #: 719 471 · 1742

6. Use Of Well MONITORING WELL

Use of this well is limited to monitoring water levels and/or water quality sampling

7. Well Data (proposed)

Total depth: 42.5 feet

Aquifer (~30') ALLUVIAL S & G

8. Consultant Information (if applicable)

Name of contact person: VICTOR DEWOLFE

Company name: DEERE & AULT CONSULTANTS

Mailing address: 600. S. AIRPORT RD A-205

City: LONGMONT | State: CO | Zip Code: 80503

Telephone #: (303 651 · 1468

9. Proposed Well Driller License #(optional):

10. Signature Of Well Owner, Consultant Or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign here (Must be *original* signature): V.S. deWolfe Date: 2/27/08

Print name & title: Victor deWolfe, Geological Engineer

Office Use Only

USGS map name	DWR map no.	Surface elev.

Receipt area only

Trans Number: 3626411 - 6
2/29/2008 1:59:12 PM
Debbie Gonzales (20)
Total Trans Amt: $900.00
CHECK
Check Number: 3917
Check Amount: $900.00

DIV ____ WD ____ BA ____ MD ____

FORM NO. GWS-31 04/2005

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587 Main (303) 866-3581
Fax (303) 866-3589 http://www.water.state.co.us

For Office Use Only

APR 2007

1. **WELL PERMIT NUMBER:** ~~MH-046815~~ 277134

2. **WELL OWNER INFORMATION**

NAME OF WELL OWNER: Stonewall Springs Quarry LLC.

MAILING ADDRESS: 15 N. Nevada Ave.

CITY: Colorado Springs STATE: CO ZIP CODE: 80903

TELEPHONE NUMBER: (719) 471-1742

3. WELL LOCATION AS DRILLED: SE1/4, SE1/4, Sec. 36, Twp. 20 ☐ N or ☒ S, Range 63 ☐ E or ☒ W

DISTANCES FROM SEC. LINES: _____ ft. from ☐ N or ☐ S section line and _____ ft. from ☐ E or ☐ W section line.

SUBDIVISION: _____, LOT ____, BLOCK ____, FILING (UNIT) ____

Optional GPS Location: GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to **true N**, ☐ Zone 12 or ☒ Zone 13

Owner's Well Designation: CR-31

Easting: 553570

STREET ADDRESS AT WELL LOCATION: SE of US Highway 50 and Nyberg Road

Northing: 4234959

4. GROUND SURFACE ELEVATION 4527.24 feet DRILLING METHOD Hollow Stem Auger

DATE COMPLETED 2/17/2007 TOTAL DEPTH 66.33 feet DEPTH COMPLETED 42.5 feet

5. GEOLOGIC LOG:

Depth	Type	Grain Size	Color	Water Loc.
0 - 13	Sandy Clay	C, S, M	tan	
13 - 43	Sand & Gravel	S, G	brown	17.97'
43 - 66	Pierre Shale	C	grey	

6. HOLE DIAM (in.)

	From (ft)	To (ft)
8	0	50
3	50	66.33

7. PLAIN CASING:

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
2.375	PVC	0.308	42.5	62.5
2.375	PVC	0.308	-3	32.5

PERFORATED CASING: Screen Slot Size (in): 0.02

2.375	PVC	0.038	32.5	42.5

8. FILTER PACK:

Material formation

Size S & G

Interval 29.5-42.5

9. PACKER PLACEMENT:

Type NA

Depth

10. GROUTING RECORD

Material	Amount	Density	Interval	Placement
NA	NA	NA	NA	NA

Remarks: Bentonite Seal @ 0-29.5 ft bgs

Metal stick-up in concrete ~3 ft above ground

11. DISINFECTION: Type NA Amt. Used NA

12. WELL TEST DATA: ☐ Check box if Test Data is submitted on Form Number GWS 39 Supplemental Well Test.

TESTING METHOD NA

Static Level 17.97 ft. Date/Time measured: 2/19/2007 @ 12:40 pm, Production Rate NA gpm.

Pumping Level NA ft. Date/Time measured NA, Test Length (hrs) NA.

Remarks: NA

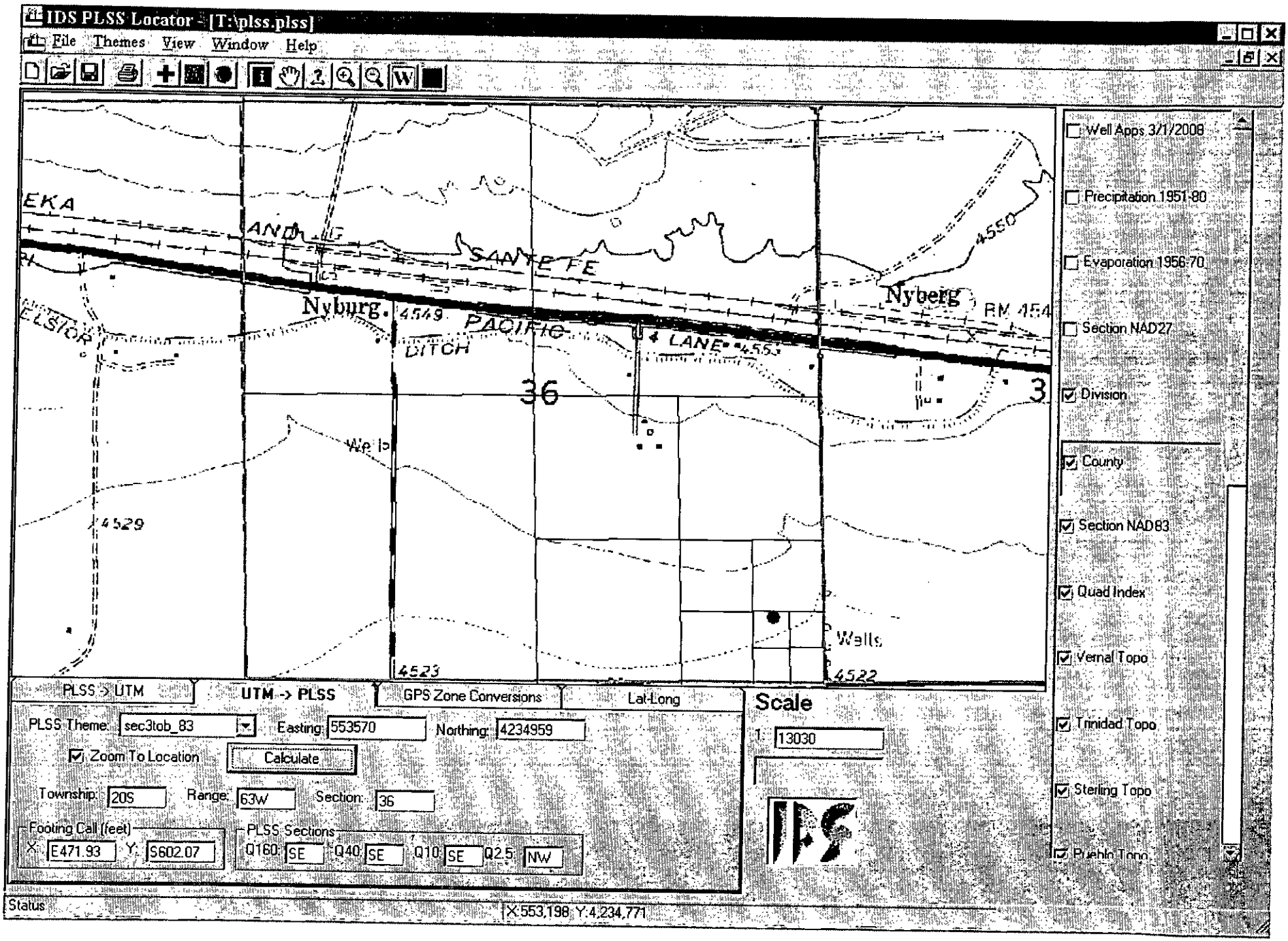
13. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. [The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to $5000 and/or revocation of the contracting license.]

Company Name:	Phone:	License Number:
Deere & Ault Consultants, Inc.	(303) 651-1468	

Mailing Address: 600 S. Airport Rd. Suite A205, Longmont, CO 80503

Signature:	Print Name and Title	Date
VIG. DeWolfe	Victor deWolfe, Geologist	4/9/2007

Morely
3626411-G



Form No. GWS-31
02/2024

WELL CONSTRUCTION AND YIELD ESTIMATE REPORT

State of Colorado, Office of the State Engineer
1313 Sherman St., Room 818, Denver, CO 80203 303.866.3581
dwr.colorado.gov and dwrpermitsonline@state.co.us

For Office Use Only

1. Well Permit Number: 4001983-MH **Receipt Number:** 04001983

2. Owner's Well Designation: MH-9

3. Well Owner Name: TRIVIEW METROPOLITAN DISTRICT (James McGrady)

4. Well Location Street Address:

5. As Built GPS Well Location (required): ☐ Zone 12 ☒ Zone 13 Easting: 553707.0 Northing: 4234779

6. Legal Well Location: NW 1/4, NW 1/4, Sec., 6 Twp. 21 ☐ N or S ☒, Range 62 ☐ E or W ☒, 6 P.M.
County: Pueblo
Subdivision: _____, Lot _____, Block _____, Filing (Unit) _____

7. Ground Surface Elevation: 4530 feet **Date Completed:** 11/22/2024 **Drilling Method:** HSA

8. Completed Aquifer Name : Alluvial **Total Depth:** 44 feet **Depth Completed:** 44 feet

9. Advance Notification: Was Notification Required Prior to Construction? ☒ Yes ☐ No, Date Notification Given: 11/05/2024

10. Aquifer Type: (Check one)
☐ Type I (One Confining Layer) ☐ Type I (Multiple Confining Layers) ☐ Laramie-Fox Hills
☐ Type II (Not overlain by Type III) ☐ Type II (Overlain by Type III) ☒ Type III (alluvial/colluvial)

11. Geologic Log:

Depth	Type	Grain Size	Color	Water Loc.
0-1.5	Topsoil	Clay	brown	
1.5-7	Silt/Clay	Silt/Clay	tan	
7-11	Clay	Clay	brown	
11-14	Sand	Sand	brown	
14-36	Sand & Gravel	Sand/gravel	tan	X
36-42.5	Sand & Cobbles	Snd/gvl/cble	tan	X

12. Hole Diameter (in.)

	From (ft)	To (ft)
8.25	0	44

13. Plain Casing

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
2.375	PVC	0.154	-3	24

Perforated Casing Screen Slot Size (in): 0.1

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
2.375	PVC	0.154	24	44

14. Filter Pack:
Material: Silica Sand
Size: 10/20
Interval: 20-44 ft

15. Packer Placement:
Type: _____
Depth: _____

16. Grouting Record

Material	Amount	Density	Interval	Method
Bentonite			0-20	handfill

Remarks: 3 ft PVC stickup with grouted well cap

17. Disinfection: Type N/A Amt. Used N/A

18. Well Yield Estimate Data: ☐ Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report
Well Yield Estimate Method: N/A
Static Level: 15.57
Date/Time measured: 11/22/24
Estimated Yield (gpm) N/A
Estimate Length (hrs) N/A
☐ Dry Hole, Keep Permit Active
☐ Dry Hole, Mark "Well Constructed"

Remarks:

19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to $1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.

Company Name:	Email:	Phone w/area code:	License Number:
Schnabel Engineering, Inc.	ejohnson@schnabel-eng.com	(303) 651-1468	PG-4246 (WY)

Mailing Address:

Sign (or enter name if filing online)	Print Name and Title	Date:
Erinn P. Johnson	Erinn P. Johnson, Professional Geologist	12/04/2024

ATTACHMENT 3

SURROUNDING WELL INFORMATION

Surrounding Well Information

GIS Data Source: Well Applications/WellPermitPublic data layer, CDSS, downloaded February 4, 2025

https://cdss.colorado.gov/gis-data/gis-data-by-category

Column in WellPermitPublic GIS layer:

Permit	*WDID*	*CurrStatus*	*Use1*	*ApplicantN*	*MoreInfo*
Permit	**WDID**	**Status**	**Permitted Use**	**Applicant**	**Source**
12917-R			Irrigation	CIRULI LOUIS & HARRY	https://dwr.state.co.us/Tools/WellPermits/9095188
10888-AD		Application Denied	Irrigation	RICH, M C	https://dwr.state.co.us/Tools/WellPermits/0251762A
10890-AD		Application Denied	Irrigation	RICH, M C	https://dwr.state.co.us/Tools/WellPermits/0251762B
		Application Information Requested	Irrigation	RICH, MELVIN	https://dwr.state.co.us/Tools/WellPermits/0011323A
		Application Information Requested	Irrigation	EVANS, C R	https://dwr.state.co.us/Tools/WellPermits/0431400B
		Application Information Requested	Irrigation	EVANS, C R	https://dwr.state.co.us/Tools/WellPermits/0431400C
		Application Information Requested	Irrigation	EVANS, C R	https://dwr.state.co.us/Tools/WellPermits/0431400D
		Application Information Requested	Commercial	PUEBLO EAST PHASE III LLC	https://dwr.state.co.us/Tools/WellPermits/10004992
		Application Information Requested	Domestic	TUCCI, PAULA	https://dwr.state.co.us/Tools/WellPermits/3678322
12918-R-R	1405143	Permit Canceled	Irrigation	CLENNIN RICHARD G III & LINDA L	https://dwr.state.co.us/Tools/WellPermits/0245751A
12919-R-R	1405144	Permit Canceled	Irrigation	CLENNIN RICHARD G III & LINDA L	https://dwr.state.co.us/Tools/WellPermits/0245751B
12927-R-R		Permit Canceled	Irrigation	STONEWALL SPRINGS QUARRY LLC	https://dwr.state.co.us/Tools/WellPermits/0257175
82448-F	1405139	Permit Canceled	Commercial	STONEWALL SPRINGS QUARRY LLC	https://dwr.state.co.us/Tools/WellPermits/3674024B
5234-F	1405139	Permit Canceled	Irrigation	PUEBLO EAST PHASE III LLC	https://dwr.state.co.us/Tools/WellPermits/9094476
12922-R	1405146	Permit Canceled	Irrigation	STONEWALL SPRINGS QUARRY LLC	https://dwr.state.co.us/Tools/WellPermits/9095193

Notes:

1. *Wells are the public permit wells shown in Figure 3.*
2. *Wells were removed from the table (all wells are shown in Figure 3) if they were not within the hydraulic bounds presented in the Pre-Baseline Groundwater Characterization section of the text.*

Surrounding Well Information

GIS Data Source: Well Applications/WellPermitPublic data layer, CDSS, downloaded February 4, 2025

https://cdss.colorado.gov/gis-data/gis-data-by-category

Column in WellPermitPublic GIS layer:

Permit	*WDID*	*CurrStatus*	*Use1*	*ApplicantN*	*MoreInfo*
Permit	**WDID**	**Status**	**Permitted Use**	**Applicant**	**Source**
12926-R	1405147	Permit Canceled	Irrigation	STONEWALL SPRINGS QUARRY LLC	https://dwr.state.co.us/Tools/WellPermits/9095197
39602-MH		Permit Expired	Monitoring/Sampling	PUEBLO CHEMICAL DEPOT	https://dwr.state.co.us/Tools/WellPermits/0039602
39603-MH		Permit Expired	Monitoring/Sampling	PUEBLO CHEMICAL DEPOT	https://dwr.state.co.us/Tools/WellPermits/0039603
39604-MH		Permit Expired	Monitoring/Sampling	PUEBLO CHEMICAL DEPOT	https://dwr.state.co.us/Tools/WellPermits/0039604
39605-MH		Permit Expired	Monitoring/Sampling	PUEBLO CHEMICAL DEPOT	https://dwr.state.co.us/Tools/WellPermits/0039605
46202-MH		Permit Expired	Monitoring/Sampling	AURORA CITY OF	https://dwr.state.co.us/Tools/WellPermits/0046202
46205-MH		Permit Expired	Monitoring/Sampling	MORELEY, COMPANIES	https://dwr.state.co.us/Tools/WellPermits/0046205
46206-MH		Permit Expired	Monitoring/Sampling	MORELEY, COMPANIES	https://dwr.state.co.us/Tools/WellPermits/0046206
46207-MH		Permit Expired	Monitoring/Sampling	MORELEY, COMPANIES	https://dwr.state.co.us/Tools/WellPermits/0046207
48027-MH		Permit Expired	Monitoring/Sampling	SLIMAN, JOHN	https://dwr.state.co.us/Tools/WellPermits/0048027
48028-MH		Permit Expired	Monitoring/Sampling	SLIMAN, JOHN	https://dwr.state.co.us/Tools/WellPermits/0048028
59882-MH		Permit Expired	Monitoring/Sampling	PETE LIEN & SONS (BECK, CLINT)	https://dwr.state.co.us/Tools/WellPermits/0059882
37415--A		Permit Expired	Domestic	VIGIL, B	https://dwr.state.co.us/Tools/WellPermits/0107716
224280-		Permit Expired	Domestic	EVANS, C R	https://dwr.state.co.us/Tools/WellPermits/0456867
12923-R-R		Permit Issued	Irrigation	RICH & CO	https://dwr.state.co.us/Tools/WellPermits/0245751C
12921-R-R		Permit Issued	Irrigation	EVANS, C R	https://dwr.state.co.us/Tools/WellPermits/0381913
12929-R-R		Permit Issued	Irrigation	EVANS, C R	https://dwr.state.co.us/Tools/WellPermits/0381913A
95104-VE		Permit Issued	Irrigation	EVANS C R DICK	https://dwr.state.co.us/Tools/WellPermits/0381913B
95105-VE		Permit Issued	Irrigation	EVANS DICK C R	https://dwr.state.co.us/Tools/WellPermits/0381913C
62251-F	1406464	Permit Issued	Other	PETE LIEN & SONS INC	https://dwr.state.co.us/Tools/WellPermits/0523455
69163-F		Permit Issued	Other	STONEWALL SPRINGS QUARRY LLC	https://dwr.state.co.us/Tools/WellPermits/3641259
11367-R	1405136	Pump Installed, No Construction Info Received	Irrigation	PREFERRED MATERIALS, INC.	https://dwr.state.co.us/Tools/WellPermits/9095026

Notes:

1. *Wells are the public permit wells shown in Figure 3.*
2. *Wells were removed from the table (all wells are shown in Figure 3) if they were not within the hydraulic bounds presented in the Pre-Baseline Groundwater Characterization section of the text.*

Surrounding Well Information

GIS Data Source: Well Applications/WellPermitPublic data layer, CDSS, downloaded February 4, 2025

https://cdss.colorado.gov/gis-data/gis-data-by-category

Column in WellPermitPublic GIS layer:

Permit	*WDID*	*CurrStatus*	*Use1*	*ApplicantN*	*MoreInfo*
Permit	**WDID**	**Status**	**Permitted Use**	**Applicant**	**Source**
13522-R-R	1405658	Well Abandoned	Irrigation	CAWLFIELD FARMS LLC	https://dwr.state.co.us/Tools/WellPermits/0374524
277288-		Well Abandoned	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/3626411B
12927-R	1405151	Well Abandoned	Irrigation	EVANS, C R	https://dwr.state.co.us/Tools/WellPermits/9095198
13522-R	1405658	Well Abandoned	Irrigation	CAWLFIELD, WOODROW	https://dwr.state.co.us/Tools/WellPermits/9095259
45995-F	1406466	Well Constructed	Other	MARTIN MARIETTA MATERIALS	https://dwr.state.co.us/Tools/WellPermits/0381021
4001983-MH		Well Constructed		TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/04001983
46813-MH		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/0441213A
46814-MH		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/0441214A
46815-MH		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/0441215
46816-MH		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/0441216A
46817-MH		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/0441217A
256194-		Well Constructed	Domestic	EVANS, C R	https://dwr.state.co.us/Tools/WellPermits/0522419
256703-		Well Constructed	Monitoring/Sampling	PETE LIEN & SONS INC	https://dwr.state.co.us/Tools/WellPermits/0523806A
256701-		Well Constructed	Monitoring/Sampling	TRANS COLORADO CONCRETE	https://dwr.state.co.us/Tools/WellPermits/0523806B
256702-		Well Constructed	Monitoring/Sampling	PETE LIEN & SONS INC	https://dwr.state.co.us/Tools/WellPermits/0523806C
256704-		Well Constructed	Monitoring/Sampling	PETE LIEN & SONS INC	https://dwr.state.co.us/Tools/WellPermits/0523806D
85110-F	1405139	Well Constructed	Commercial	PREFERRED MATERIALS, INC.	https://dwr.state.co.us/Tools/WellPermits/10004991
88531-F	1405143	Well Constructed	Commercial	PETER LIEN & SONS INC (TIDEMAN, BRIAN)	https://dwr.state.co.us/Tools/WellPermits/10030726
88532-F	1405144	Well Constructed	Commercial	PETER LIEN & SONS INC (TIDEMAN, BRIAN)	https://dwr.state.co.us/Tools/WellPermits/10030727
277098-		Well Constructed	Monitoring/Sampling	MORELY, COMPANIES	https://dwr.state.co.us/Tools/WellPermits/3626411A
277100-		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/3626411C
277097-		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/3626411D
277133-		Well Constructed	Monitoring/Sampling	MORLEY, MARK	https://dwr.state.co.us/Tools/WellPermits/3626411E
277135-		Well Constructed	Monitoring/Sampling	PIEDMONT HOUSE LLC	https://dwr.state.co.us/Tools/WellPermits/3626411F

Notes:

1. *Wells are the public permit wells shown in Figure 3.*
2. *Wells were removed from the table (all wells are shown in Figure 3) if they were not within the hydraulic bounds presented in the Pre-Baseline Groundwater Characterization section of the text.*

Surrounding Well Information

GIS Data Source: Well Applications/WellPermitPublic data layer, CDSS, downloaded February 4, 2025

https://cdss.colorado.gov/gis-data/gis-data-by-category

Column in WellPermitPublic GIS layer:

Permit	*WDID*	*CurrStatus*	*Use1*	*ApplicantN*	*MoreInfo*
Permit	**WDID**	**Status**	**Permitted Use**	**Applicant**	**Source**
277134-		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/3626411G
277132-		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/3626411H
277131-		Well Constructed	Monitoring/Sampling	MORELY, MARK	https://dwr.state.co.us/Tools/WellPermits/3626411I
279125-		Well Constructed	Monitoring/Sampling	SLIMAN, JOHN	https://dwr.state.co.us/Tools/WellPermits/3634561B
13522-R-R	1405658	Well Constructed	Irrigation	CRITES, BRYAN	https://dwr.state.co.us/Tools/WellPermits/3663108
82449-F	1405146	Well Constructed	Commercial	TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/3674024C
82450-F	1405147	Well Constructed	Commercial	TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/3674024D
82451-F	1405148	Well Constructed	Commercial	TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/3674024E
82452-F	1405151	Well Constructed	Commercial	TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/3674024F
1275-R	1405140	Well Constructed	Irrigation	STONEWALL SPRINGS QUARRY LIC	https://dwr.state.co.us/Tools/WellPermits/9094135
5830-		Well Constructed	Stock	NIX, HOWARD	https://dwr.state.co.us/Tools/WellPermits/9094549
11368-R	1405135	Well Constructed	Irrigation	MARTIN MARIETTA MATERIALS INC. (COURTNEY, PHILLIP)	https://dwr.state.co.us/Tools/WellPermits/9095027
12920-R	1405141	Well Constructed	Irrigation	TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/9095191
12924-R	1405150	Well Constructed	Irrigation	TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/9095195

Notes:

1. *Wells are the public permit wells shown in Figure 3.*
2. *Wells were removed from the table (all wells are shown in Figure 3) if they were not within the hydraulic bounds presented in the Pre-Baseline Groundwater Characterization section of the text.*

Surrounding Well Information

GIS Data Source: Well Applications/WellPermitPublic data layer, CDSS, downloaded February 4, 2025

https://cdss.colorado.gov/gis-data/gis-data-by-category

Column in WellPermitPublic GIS layer:

Permit	*WDID*	*CurrStatus*	*Use1*	*ApplicantN*	*MoreInfo*
Permit	**WDID**	**Status**	**Permitted Use**	**Applicant**	**Source**
12925-R	1405222	Well Constructed	Irrigation	TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/9095196
54992-		Well Constructed	Domestic	CINCOTTA, CHRISTOPHER J.	https://dwr.state.co.us/Tools/WellPermits/9096738
59103-		Well Constructed	Domestic	MCPHAUL, ORMA J	https://dwr.state.co.us/Tools/WellPermits/9096796
73084-		Well Constructed	Household use only	GIARRATANO, GASPER	https://dwr.state.co.us/Tools/WellPermits/9096991
51-WCB		Well Constructed	Irrigation	CIRULI, DAVID	https://dwr.state.co.us/Tools/WellPermits/C510051
182-WCB		Well Constructed	Irrigation	SANFORD, C S	https://dwr.state.co.us/Tools/WellPermits/C510182
12921-R	1405145	Well Constructed - Replacement Permit Issued	Irrigation	TRIVIEW METROPOLITAN DISTRICT (MCGRADY, JAMES)	https://dwr.state.co.us/Tools/WellPermits/9095192
12923-R	1405148	Well Constructed - Replacement Permit Issued	Irrigation	STONEWALL SPRINGS QUARRY LLC	https://dwr.state.co.us/Tools/WellPermits/9095194
12929-R	1405142	Well Constructed - Replacement Permit Issued	Irrigation	STONEWALL SPRINGS QUARRY LLC	https://dwr.state.co.us/Tools/WellPermits/9095200
1277-R	1405138	Well Replaced - Abandonment Required	Irrigation	SANFORD, C S	https://dwr.state.co.us/Tools/WellPermits/9094137
12918-R	1405143	Well Replaced - Abandonment Required	Irrigation	PETE LIEN & SONS INC	https://dwr.state.co.us/Tools/WellPermits/9095189
12919-R	1405144	Well Replaced - Abandonment Required	Irrigation	PETE LIEN & SONS INC	https://dwr.state.co.us/Tools/WellPermits/9095190

Notes:

1. *Wells are the public permit wells shown in Figure 3.*
2. *Wells were removed from the table (all wells are shown in Figure 3) if they were not within the hydraulic bounds presented in the Pre-Baseline Groundwater Characterization section of the text.*

Surrounding Well Information

Surrounding Well Information

GIS Data Source: div2_wells_decreed

Column in Decreed Well GIS layer:

ID	*Name*	*Water_SRC*	*HTMLLINK*
WDID	**NAME**	**WATER SOURCE**	**Source**
1405140	BEAMON MCPHAUL WELL NO 1	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5140
1405157	BEAMON MCPHAUL WELL NO 2	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5157
1405138	BEAMON MCPHAUL WELL NO 3	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5138
1405137	BEAMON MCPHAUL WELL NO 4	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5137
1405139	BEAMON MCPHAUL WELL NO 5	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5139
1405135	PHELPS WELL NO 2	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5135
1405136	PHELPS WELL NO 1	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5136
1405141	SOLADA WELL NO 1	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5141
1405143	SOLADA WELL NO 2	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5143
1405144	SOLADA WELL NO 3	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5144
1405142	SOLADA WELL NO 4	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5142
1405145	SOLADA WELL NO 9	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5145
1405146	SOLADA WELL NO 10	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5146
1405148	SOLADA WELL NO 11	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5148
1405150	SOLADA WELL NO 12	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5150
1405222	SOLADA WELL NO 13	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5222
1405147	SOLADA WELL NO 14	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5147
1405151	SOLADA WELL NO 15	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=5151
1406363	PHELPS WELL	NON-EXEMPT TRIB WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=6363
1409028	IL KEN MONTOYA NO 2	EXEMPT WELLS	http://cdss.state.co.us/structure/structure.aspx?wd=14&strid=9028

Notes:

1. *Wells are the decreed wells layer shown in Figure 3.*
2. *Wells were removed from the table (all wells are shown in Figure 3) if they were not within the hydraulic bounds presented in the Pre-Baseline Groundwater Characterization section of the text.*

ATTACHMENT 4

HISTORICAL WATER DEPTH RECORDS

Well Name: **SC02006335ADD**

Data Source: *SC02006335ADD*

Minimum Depth to Water (ft): 21.38 **Date:** 11/13/1965

Maximum Depth to Water (ft): 30.01 **Date:** 10/2/1963

Average Depth to Water (ft): 25.17 **Date:** 10/02/1963 - 03/06/1984

Well ID	Well Name	Date	Depth to Water (ft)	Measure Point Above Land Surface (ft)	Wl Depth Calc	Elevation of Water (ft)	Water Level Change (ft)	Meas By	Publication Name	Modified
8935	SC02006335ADD	10/2/1963	30.01	0	30.01	4507.68		USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	4/20/1964	28.28	0	28.28	4509.41	1.73	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	10/13/1964	28.22	0	28.22	4509.47	0.06	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/1/1965	23	0	23	4514.69	5.22	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/25/1965	23.38	0	23.38	4514.31	-0.38	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	6/16/1965	26.23	0	26.23	4511.46	-2.85	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	7/27/1965	21.85	0	21.85	4515.84	4.38	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	11/13/1965	21.38	0	21.38	4516.31	0.47	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	10/5/1966	29.49	0	29.49	4508.2	-8.11	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	10/3/1967	26.5	0	26.5	4511.19	2.99	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/22/1968	23.28	0	23.28	4514.41	3.22	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	10/1/1968	25.68	0	25.68	4512.01	-2.4	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/25/1969	23.63	0	23.63	4514.06	2.05	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	11/2/1969	23.28	0	23.28	4514.41	0.35	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/2/1970	23.05	0	23.05	4514.64	0.23	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/9/1971	22.96	0	22.96	4514.73	0.09	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/1/1972	24.47	0	24.47	4513.22	-1.51	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	2/27/1973	24.82	0	24.82	4512.87	-0.35	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/12/1974	24.15	0	24.15	4513.54	0.67	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	1/14/1975	26.84	0	26.84	4510.85	-2.69	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	12/16/1975	25.3	0	25.3	4512.39	1.54	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/15/1977	25.92	0	25.92	4511.77	-0.62	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/8/1978	26.34	0	26.34	4511.35	-0.42	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/9/1979	24.9	0	24.9	4512.79	1.44	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/11/1980	25.05	0	25.05	4512.64	-0.15	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/16/1982	25.7	0	25.7	4511.99	-0.65	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/9/1983	25.63	0	25.63	4512.06	0.07	USGS	Yes	02/17/2005 14:06
8935	SC02006335ADD	3/6/1984	25.55	0	25.55	4512.14	0.08	USGS	Yes	02/17/2005 14:06

Well Name: **SC02006336CBA**

Data Source: *SC02006336CBA*

Minimum Depth to Water (ft): 13.46 **Date:** 11/13/1965

Maximum Depth to Water (ft): 20.33 **Date:** 10/2/1963

Average Depth to Water (ft): 17.28 **Date:** 10/02/1963 - 03/10/1981

Well ID	Well Name	Date	Depth to Water (ft)	Measure Point Above Land Surface (ft)	Wl Depth Calc	Elevation of Water (ft)	Water Level Change (ft)	Meas By	Publication Name	Modified
10340	SC02006336CBA	10/2/1963	20.33	0	20.33	4513.33		USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	4/1/1964	18	0	18	4515.66	2.33	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	4/20/1964	18.46	0	18.46	4515.2	-0.46	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	8/3/1964	20.27	0	20.27	4513.39	-1.81	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	10/13/1964	19.4	0	19.4	4514.26	0.87	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/25/1965	15.76	0	15.76	4517.9	3.64	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	6/18/1965	17.32	0	17.32	4516.34	-1.56	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	7/27/1965	15.9	0	15.9	4517.76	1.42	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	11/13/1965	13.46	0	13.46	4520.2	2.44	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/24/1966	15.52	0	15.52	4518.14	-2.06	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	10/5/1966	19.89	0	19.89	4513.77	-4.37	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/22/1967	16.8	0	16.8	4516.86	3.09	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	10/3/1967	18.05	0	18.05	4515.61	-1.25	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/22/1968	15.38	0	15.38	4518.28	2.67	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	10/1/1968	17.89	0	17.89	4515.77	-2.51	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/25/1969	15.66	0	15.66	4518	2.23	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	11/2/1969	16.48	0	16.48	4517.18	-0.82	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/2/1970	15.29	0	15.29	4518.37	1.19	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/9/1971	15.04	0	15.04	4518.62	0.25	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/12/1972	16.03	0	16.03	4517.63	-0.99	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/15/1977	17.88	0	17.88	4515.78	-1.85	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/7/1978	18.48	0	18.48	4515.18	-0.6	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/9/1979	19.67	0	19.67	4513.99	-1.19	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/11/1980	17.22	0	17.22	4516.44	2.45	USGS	Yes	02/17/2005 14:06
10340	SC02006336CBA	3/10/1981	17.9	0	17.9	4515.76	-0.68	USGS	Yes	02/17/2005 14:06

Well Name: **SC02006231CDD**

Data Source: https://dwr.state.co.us/Tools/Groundwater/WaterLevels/8911#

Minimum Depth to Water (ft): 16.00 **Date:** 8/1/1962

Maximum Depth to Water (ft): 30.56 **Date:** 5/6/1980

Average Depth to Water (ft): 21.12 **Date:** 08/01/1962 - 05/06/1980

Well ID	Well Name	Date	Depth to Water (ft)	Measure Point Above Land Surface (ft)	Wl Depth Calc	Elevation of Water (ft)	Water Level Change (ft)	Meas By	Publication Name	Modified
8911	SC02006231CDD	8/1/1962	16	0	16	4511.66		USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	10/3/1963	24.09	0	24.09	4503.57	-8.09	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	4/13/1964	20.29	0	20.29	4507.37	3.8	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	8/3/1964	23.47	0	23.47	4504.19	-3.18	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	10/13/1964	24.05	0	24.05	4503.61	-0.58	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	3/25/1965	21.05	0	21.05	4506.61	3	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	6/16/1965	22.02	0	22.02	4505.64	-0.97	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	7/27/1965	19.02	0	19.02	4508.64	3	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	11/13/1965	16.75	0	16.75	4510.91	2.27	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	3/24/1966	17.85	0	17.85	4509.81	-1.1	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	10/5/1966	22.42	0	22.42	4505.24	-4.57	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	3/23/1967	20.23	0	20.23	4507.43	2.19	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	10/4/1967	20.52	0	20.52	4507.14	-0.29	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	3/22/1968	19	0	19	4508.66	1.52	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	10/1/1968	21.07	0	21.07	4506.59	-2.07	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	11/2/1969	19.43	0	19.43	4508.23	1.64	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	3/2/1970	18.87	0	18.87	4508.79	0.56	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	3/9/1971	18.9	0	18.9	4508.76	-0.03	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	2/28/1973	22.28	0	22.28	4505.38	-3.38	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	3/12/1974	20.4	0	20.4	4507.26	1.88	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	1/14/1975	22.55	0	22.55	4505.11	-2.15	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	12/16/1975	20.2	0	20.2	4507.46	2.35	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	3/7/1979	25.9	0	25.9	4501.76	-5.7	USGS	Yes	02/17/2005 14:06
8911	SC02006231CDD	5/6/1980	30.56	0	30.56	4497.1	-4.66	USGS	Yes	02/17/2005 14:06

Well Name: **SC02006231CCB1**

Data Source: *SC02006231CCB1*

Minimum Depth to Water (ft): 12.39 **Date:** 11/13/1965

Maximum Depth to Water (ft): 26.24 **Date:** 3/25/1969

Average Depth to Water (ft): 17.25 **Date:** 04/01/1964 - 03/07/1979

Well ID	Well Name	Date	Depth to Water (ft)	Measure Point Above Land Surface (ft)	Wl Depth Calc	Elevation of Water (ft)	Water Level Change (ft)	Meas By	Publication Name	Modified
9602	SC02006231CCB1	4/1/1964	16	0	16	4512.66		USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	4/13/1964	15.78	0	15.78	4512.88	0.22	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	8/3/1964	25.5	0	25.5	4503.16	-9.72	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	10/13/1964	20.43	0	20.43	4508.23	5.07	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/25/1965	15.95	0	15.95	4512.71	4.48	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	6/21/1965	18.19	0	18.19	4510.47	-2.24	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	7/27/1965	15.95	0	15.95	4512.71	2.24	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	11/13/1965	12.39	0	12.39	4516.27	3.56	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/24/1966	13.15	0	13.15	4515.51	-0.76	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	10/5/1966	20.37	0	20.37	4508.29	-7.22	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/23/1967	15.39	0	15.39	4513.27	4.98	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	10/4/1967	18.06	0	18.06	4510.6	-2.67	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/22/1968	14.28	0	14.28	4514.38	3.78	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	10/1/1968	20.98	0	20.98	4507.68	-6.7	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/25/1969	26.24	0	26.24	4502.42	-5.26	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	11/2/1969	15.18	0	15.18	4513.48	11.06	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/2/1970	14.17	0	14.17	4514.49	1.01	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/9/1971	14.53	0	14.53	4514.13	-0.36	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/1/1972	16.33	0	16.33	4512.33	-1.8	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	2/27/1973	17.32	0	17.32	4511.34	-0.99	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/12/1974	15.48	0	15.48	4513.18	1.84	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	1/14/1975	18.07	0	18.07	4510.59	-2.59	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	12/18/1975	16.48	0	16.48	4512.18	1.59	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/23/1976	16.36	0	16.36	4512.3	0.12	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/15/1977	17.01	0	17.01	4511.65	-0.65	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/7/1978	18.08	0	18.08	4510.58	-1.07	USGS	Yes	02/17/2005 14:06
9602	SC02006231CCB1	3/7/1979	18.13	0	18.13	4510.53	-0.05	USGS	Yes	02/17/2005 14:06

Well Name: **SC02006336DCD1**

Data Source: SC02006336DCD1

Minimum Depth to Water (ft): 12.90 **Date:** 11/13/1965

Maximum Depth to Water (ft): 20.43 **Date:** 10/2/1963

Average Depth to Water (ft): 16.48 **Date:** 08/01/1962 - 03/06/1984

Well ID	Well Name	Date	Depth to Water (ft)	Measure Point Above Land Surface (ft)	Wl Depth Calc	Elevation of Water (ft)	Water Level Change (ft)	Meas By	Publication Name	Modified
9625	SC02006336DCD1	8/1/1962	14	0	14	4512.66		USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	10/2/1963	20.43	0	20.43	4506.23	-6.43	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	4/13/1964	14.96	0	14.96	4511.7	5.47	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	8/3/1964	18.4	0	18.4	4508.26	-3.44	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	10/13/1964	18.06	0	18.06	4508.6	0.34	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/25/1965	15.12	0	15.12	4511.54	2.94	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	6/21/1965	15.8	0	15.8	4510.86	-0.68	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	7/27/1965	16.88	0	16.88	4509.78	-1.08	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	11/13/1965	12.9	0	12.9	4513.76	3.98	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/24/1966	13.48	0	13.48	4513.18	-0.58	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	10/4/1966	17.65	0	17.65	4509.01	-4.17	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/22/1968	15.03	0	15.03	4511.63	2.62	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/25/1969	14.36	0	14.36	4512.3	0.67	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	11/2/1969	14.86	0	14.86	4511.8	-0.5	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/2/1970	14.08	0	14.08	4512.58	0.78	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/9/1971	13.98	0	13.98	4512.68	0.1	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/1/1972	15.49	0	15.49	4511.17	-1.51	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	2/27/1973	16.19	0	16.19	4510.47	-0.7	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/12/1974	15.81	0	15.81	4510.85	0.38	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	12/16/1975	16.77	0	16.77	4509.89	-0.96	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/7/1978	18	0	18	4508.66	-1.23	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/7/1979	19.5	0	19.5	4507.16	-1.5	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/9/1979	19.5	0	19.5	4507.16	0	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/11/1980	17.2	0	17.2	4509.46	2.3	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	29655	17.43	0	17.43	4509.23	-0.23	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	30026	18.63	0	18.63	4508.03	-1.2	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/9/1983	18.58	0	18.58	4508.08	0.05	USGS	Yes	02/17/2005 14:06
9625	SC02006336DCD1	3/6/1984	18.46	0	18.46	4508.2	0.12	USGS	Yes	02/17/2005 14:06

Well Name: **046817-MH, 277131, CR-24**

Data Source: *Pueblo East Pit Monitoring Data*

Surface Elevation (feet): 4542.1

Height of Stickup Casing (feet): 2.6

Minimum Depth to Water (ft): 27.4 **Date:** 4/25/2024

Maximum Depth to Water (ft): 31.1 **Date:** 12/30/2019

Average Depth to Water (ft): 28.6 **Date:** 12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)
12/15/2018	32.0	4512.7	29.4
1/17/2019	31.9	4512.8	29.3
2/13/2019	31.8	4512.9	29.2
3/7/2019	33.3	4511.4	30.7
3/22/2019	33.5	4511.2	30.9
4/9/2019	32.9	4511.8	30.3
4/25/2019	33.1	4511.6	30.5
5/15/2019	33.1	4511.6	30.5
5/30/2019	33.1	4511.6	30.5
6/5/2019	33.3	4511.4	30.7
6/24/2019	33.4	4511.3	30.8
7/25/2019	32.2	4512.5	29.6
8/7/2019	32.7	4512.0	30.1
8/27/2019	32.9	4511.8	30.3
9/10/2019	32.8	4511.9	30.2
9/26/2019	32.6	4512.1	30.0
10/15/2019	33.4	4511.3	30.8
10/29/2019	33.2	4511.5	30.6
11/11/2019	33.4	4511.3	30.8
11/19/2019	33.3	4511.4	30.7
12/3/2019	33.4	4511.3	30.8
12/30/2019	33.7	4511.0	31.1
1/6/2020	33.4	4511.3	30.8
1/24/2020	33.3	4511.4	30.7
3/10/2020	30.6	4514.1	28.0
3/27/2020	30.7	4514.0	28.1
4/9/2020	30.5	4514.2	27.9
4/28/2020	30.4	4514.3	27.8
5/6/2020	30.9	4513.8	28.3
5/28/2020	30.6	4514.1	28.0
6/9/2020	30.5	4514.2	27.9
6/24/2020	30.4	4514.3	27.8
7/7/2020	30.2	4514.5	27.6
7/20/2020	30.2	4514.5	27.6

Well Name: **046817-MH, 277131, CR-24**

Data Source: *Pueblo East Pit Monitoring Data*

Surface Elevation (feet): 4542.1

Height of Stickup Casing (feet): 2.6

Minimum Depth to Water (ft): 27.4 **Date:** 4/25/2024

Maximum Depth to Water (ft): 31.1 **Date:** 12/30/2019

Average Depth to Water (ft): 28.6 **Date:** 12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)
10/7/2020	30.6	4514.1	28.0
10/29/2020	30.6	4514.1	28.0
11/5/2020	30.5	4514.2	27.9
11/21/2020	30.4	4514.3	27.8
12/6/2020	30.9	4513.8	28.3
12/23/2020	30.6	4514.1	28.0
1/7/2021	30.6	4514.1	28.0
1/25/2021	30.4	4514.3	27.8
2/5/2021	30.8	4513.9	28.2
2/25/2021	30.6	4514.1	28.0
3/3/2021	30.7	4514.0	28.1
3/24/2021	30.6	4514.1	28.0
4/6/2021	30.3	4514.4	27.7
4/28/2021	30.1	4514.6	27.5
5/4/2021	30.1	4514.6	27.5
6/17/2021	30.6	4514.1	28.0
7/30/2021	30.1	4514.6	27.5
8/17/2021	30.6	4514.1	28.0
9/21/2021	30.5	4514.2	27.9
10/15/2021	30.6	4514.1	28.0
11/29/2021	30.7	4514.0	28.1
12/14/2021	30.5	4514.2	27.9
1/10/2022	30.8	4513.9	28.2
2/17/2022	30.6	4514.1	28.0
3/6/2022	30.4	4514.3	27.8
4/12/2022	30.2	4514.5	27.6
5/16/2022	30.4	4514.3	27.8
6/10/2022	30.5	4514.2	27.9
7/5/2022	30.3	4514.4	27.7
8/12/2022	30.5	4514.2	27.9
9/4/2022	30.7	4514.0	28.1
10/15/2022	30.4	4514.3	27.8
11/10/2022	30.5	4514.2	27.9
12/21/2022	30.4	4514.3	27.8

Well Name:	**046817-MH, 277131, CR-24**		
Data Source:	*Pueblo East Pit Monitoring Data*		
Surface Elevation (feet):	4542.1		
Height of Stickup Casing (feet):	2.6		
Minimum Depth to Water (ft):	27.4	**Date:**	4/25/2024
Maximum Depth to Water (ft):	31.1	**Date:**	12/30/2019
Average Depth to Water (ft):	28.6	**Date:**	12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)	
1/12/2023	30.7	4514.0	28.1	
2/8/2023	30.4	4514.3	27.8	
3/14/2023	30.5	4514.2	27.9	
7/3/2023	30.4	4514.3	27.8	
8/10/2023	30.9	4513.8	28.3	
9/5/2023	30.9	4513.8	28.3	
10/4/2023	31.2	4513.5	28.6	
11/9/2023	31.0	4513.7	28.4	
12/14/2023	30.8	4513.9	28.2	*Assumed 12/14/2023 (original label = 12/14/2024)
1/24/2024	30.4	4514.3	27.8	
2/19/2024	30.1	4514.6	27.5	
3/21/2024	30	4514.4	27.7	
4/25/2024	30.0	4514.7	27.4	
5/29/2024	30.1	4514.6	27.5	

Well Name:	**046814-MH, 277135, CR-10**		
Data Source:	*Pueblo East Pit Monitoring Data*		
Surface Elevation (feet):	4528.4		
Height of Stickup Casing (feet):	2.9		
Minimum Depth to Water (ft):	17.2	**Date:**	12/14/2023
Maximum Depth to Water (ft):	27.0	**Date:**	12/15/2018
Average Depth to Water (ft):	19.7	**Date:**	12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)
12/15/2018	29.9	4501.4	27.0
1/17/2019	29.3	4502.0	26.4
2/13/2019	29.8	4501.5	26.9
3/7/2019	24.3	4507.0	21.4
3/22/2019	23.9	4507.4	21.0
4/9/2019	24.6	4506.7	21.7
4/25/2019	24.7	4506.6	21.8
5/15/2019	25.0	4506.3	22.1
5/30/2019	25.2	4506.1	22.3
6/5/2019	25.0	4506.3	22.1
6/24/2019	24.8	4506.5	21.9
7/25/2019	23.7	4507.6	20.8
8/7/2019	23.7	4507.6	20.8
8/27/2019	23.8	4507.5	20.9
9/10/2019	23.3	4508.0	20.4
9/26/2019	23.5	4507.8	20.6
10/15/2019	23.6	4507.7	20.7
10/29/2019	27.6	4503.7	24.7
11/11/2019	25.8	4505.5	22.9
11/19/2019	25.7	4505.6	22.8
12/3/2019	25.5	4505.8	22.6
12/30/2019	25.9	4505.4	23.0
1/6/2020	25.5	4505.8	22.6
1/24/2020	25.7	4505.6	22.8
3/10/2020	21.6	4509.7	18.7
3/27/2020	21.5	4509.8	18.6
4/9/2020	21.3	4510.0	18.4
4/28/2020	21.5	4509.8	18.6
5/6/2020	21.8	4509.5	18.9
5/28/2020	21.8	4509.5	18.9
6/9/2020	21.7	4509.6	18.8
6/24/2020	21.5	4509.8	18.6
7/7/2020	21.6	4509.7	18.7
7/20/2020	21.4	4509.9	18.5

Well Name: **046814-MH, 277135, CR-10**

Data Source: *Pueblo East Pit Monitoring Data*

Surface Elevation (feet): 4528.4

Height of Stickup Casing (feet): 2.9

Minimum Depth to Water (ft): 17.2 **Date:** 12/14/2023

Maximum Depth to Water (ft): 27.0 **Date:** 12/15/2018

Average Depth to Water (ft): 19.7 **Date:** 12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)
10/7/2020	21.6	4509.7	18.7
10/29/2020	21.5	4509.8	18.6
11/5/2020	21.3	4510.0	18.4
11/21/2020	21.5	4509.8	18.6
12/6/2020	21.7	4509.6	18.8
12/23/2020	21.8	4509.5	18.9
1/7/2021	21.5	4509.8	18.6
1/25/2021	21.4	4509.9	18.5
2/5/2021	21.6	4509.7	18.7
2/25/2021	21.3	4510.0	18.4
3/3/2021	21.1	4510.2	18.2
3/24/2021	21.4	4509.9	18.5
4/6/2021	21.0	4510.3	18.1
4/28/2021	21.5	4509.8	18.6
5/4/2021	21.4	4509.9	18.5
6/17/2021	21.8	4509.5	18.9
7/30/2021	21.8	4509.5	18.9
8/17/2021	21.3	4510.0	18.4
9/21/2021	21.7	4509.6	18.8
10/15/2021	21.2	4510.1	18.3
11/29/2021	21.8	4509.5	18.9
12/14/2021	21.6	4509.7	18.7
1/10/2022	21.9	4509.4	19.0
2/17/2022	21.7	4509.6	18.8
3/6/2022	21.6	4509.7	18.7
4/12/2022	21.3	4510.0	18.4
5/16/2022	21.3	4510.0	18.4
6/10/2022	21.6	4509.7	18.7
7/5/2022	21.7	4509.6	18.8
8/12/2022	21.9	4509.4	19.0
9/4/2022	22.1	4509.2	19.2
10/15/2022	21.9	4509.4	19.0
11/10/2022	21.7	4509.6	18.8
12/21/2022	21.5	4509.8	18.6

Well Name:	**046814-MH, 277135, CR-10**		
Data Source:	*Pueblo East Pit Monitoring Data*		
Surface Elevation (feet):	4528.4		
Height of Stickup Casing (feet):	2.9		
Minimum Depth to Water (ft):	17.2	**Date:**	12/14/2023
Maximum Depth to Water (ft):	27.0	**Date:**	12/15/2018
Average Depth to Water (ft):	19.7	**Date:**	12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)	
1/12/2023	22.1	4509.2	19.2	
2/8/2023	21.9	4509.4	19.0	
3/14/2023	21.8	4509.5	18.9	
7/3/2023	20.9	4510.4	18.0	
8/10/2023	20.4	4510.9	17.5	
9/5/2023	20.4	4510.9	17.5	
10/4/2023	20.7	4510.6	17.8	
11/9/2023	20.3	4511.0	17.4	
12/14/2023	20.1	4511.2	17.2	*Assumed 12/14/2023 (original label = 12/14/2024)
1/24/2024	20.6	4510.7	17.7	
2/19/2024	20.7	4510.6	17.8	
3/21/2024	21	4325.3	17.7	*Depth corrected to 20.6 from 206
4/25/2024	20.7	4510.6	17.8	
5/29/2024	20.4	4510.9	17.5	

Well Name: **46206-MH, 277133, CR-6**

Data Source: *Pueblo East Pit Monitoring Data*

Surface Elevation (feet): 4525.3

Height of Stickup Casing (feet): 2.8

Minimum Depth to Water (ft): 13.3 **Date:** 3/3/2021

Maximum Depth to Water (ft): 19.8 **Date:** 1/17/2019

Average Depth to Water (ft): 14.8 **Date:** 12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)
12/15/2018	22.3	4505.8	19.6
1/17/2019	22.5	4505.6	19.8
2/13/2019	22.3	4505.8	19.6
3/7/2019	19.6	4508.5	16.9
3/22/2019	19.5	4508.6	16.8
4/9/2019	19.1	4509.0	16.4
4/25/2019	19.3	4508.8	16.6
5/15/2019	19.2	4508.9	16.5
5/30/2019	19.4	4508.7	16.7
6/5/2019	19.6	4508.5	16.9
6/24/2019	19.5	4508.6	16.8
7/25/2019	19.9	4508.2	17.2
8/7/2019	19.6	4508.5	16.9
8/27/2019	19.4	4508.7	16.7
9/10/2019	19.6	4508.5	16.9
9/26/2019	19.5	4508.6	16.8
10/15/2019	19.9	4508.2	17.2
10/29/2019	20.1	4508.0	17.4
11/11/2019	20.0	4508.1	17.3
11/19/2019	20.0	4508.1	17.3
12/3/2019	20.2	4507.9	17.5
12/30/2019	19.9	4508.2	17.2
1/6/2020	20.0	4508.1	17.3
1/24/2020	20.0	4508.1	17.3
3/10/2020	16.7	4511.4	14.0
3/27/2020	16.7	4511.4	14.0
4/9/2020	16.8	4511.3	14.1
4/28/2020	16.9	4511.2	14.2
5/6/2020	16.5	4511.6	13.8
5/28/2020	16.7	4511.4	14.0
6/9/2020	16.5	4511.6	13.8
6/24/2020	16.5	4511.6	13.8

Well Name: **46206-MH, 277133, CR-6**

Data Source: *Pueblo East Pit Monitoring Data*

Surface Elevation (feet): 4525.3

Height of Stickup Casing (feet): 2.8

Minimum Depth to Water (ft): 13.3 **Date:** 3/3/2021

Maximum Depth to Water (ft): 19.8 **Date:** 1/17/2019

Average Depth to Water (ft): 14.8 **Date:** 12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)
7/7/2020	16.4	4511.7	13.7
7/20/2020	16.2	4511.9	13.5
10/7/2020	16.6	4511.5	13.9
10/29/2020	16.7	4511.4	14.0
11/5/2020	16.8	4511.3	14.1
11/21/2020	16.9	4511.2	14.2
12/6/2020	16.5	4511.6	13.8
12/23/2020	16.7	4511.4	14.0
1/7/2021	16.5	4511.6	13.8
1/25/2021	16.8	4511.3	14.1
2/5/2021	16.4	4511.7	13.7
2/25/2021	16.3	4511.8	13.6
3/3/2021	16.0	4512.1	13.3
3/24/2021	16.2	4511.9	13.5
4/6/2021	16.0	4512.1	13.3
4/28/2021	16.4	4511.7	13.7
5/4/2021	16.7	4511.4	14.0
6/17/2021	16.9	4511.2	14.2
7/30/2021	16.4	4511.7	13.7
8/17/2021	16.0	4512.1	13.3
9/21/2021	16.4	4511.7	13.7
10/15/2021	16.7	4511.4	14.0
11/29/2021	16.5	4511.6	13.8
12/14/2021	16.8	4511.3	14.1
1/10/2022	16.2	4511.9	13.5
2/17/2022	16.2	4511.9	13.5
3/6/2022	16.5	4511.6	13.8
4/12/2022	16.8	4511.3	14.1
5/16/2022	16.5	4511.6	13.8
6/10/2022	16.3	4511.8	13.6
7/5/2022	16.7	4511.4	14.0
8/12/2022	16.4	4511.7	13.7
9/4/2022	16.5	4511.6	13.8

Well Name:	**46206-MH, 277133, CR-6**		
Data Source:	*Pueblo East Pit Monitoring Data*		
Surface Elevation (feet):	4525.3		
Height of Stickup Casing (feet):	2.8		
Minimum Depth to Water (ft):	13.3	**Date:**	3/3/2021
Maximum Depth to Water (ft):	19.8	**Date:**	1/17/2019
Average Depth to Water (ft):	14.8	**Date:**	12/15/2018 - 05/29/2024

Date of Reading	DTW, toc (ft)	Elevation (ft AMSL)	Depth to Water (Calculated, ft)	
10/15/2022	16.4	4511.7	13.7	
11/10/2022	16.8	4511.3	14.1	
12/21/2022	16.4	4511.7	13.7	
1/12/2023	16.5	4511.6	13.8	
2/8/2023	16.6	4511.5	13.9	
3/14/2023	16.8	4511.3	14.1	
7/3/2023	16.4	4511.7	13.7	
8/10/2023	16.3	4511.8	13.6	
9/5/2023	16.3	4511.8	13.6	
10/4/2023	16.5	4511.6	13.8	
11/9/2023	16.7	4511.4	14.0	
12/14/2023	16.8	4511.3	14.1	*Assumed 12/14/2023 (original label = 12/14/2024)
1/24/2024	16.4	4511.7	13.7	
2/19/2024	17	4511.6	13.8	
3/21/2024	16.6	4511.5	13.9	
4/25/2024	16.1	4512.0	13.4	
5/29/2024	16.2	4511.9	13.5	

ATTACHMENT 5

DECEMBER 2024, BASELINE SAMPLING

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Gary Potter
Triview Metropolitan District
16055 Old Forest Point
Suite 302
Monument, Colorado 80132

Generated 1/13/2025 9:05:57 AM

JOB DESCRIPTION

Quarterly Well Sampling

JOB NUMBER

280-201339-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

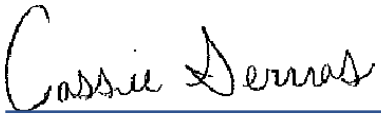
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



Generated
1/13/2025 9:05:57 AM

Authorized for release by
Cassie Servas, Project Manager
Cassie.Servas@et.eurofinsus.com
(303)736-0100

Table of Contents

Definitions/Glossary

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
280-201339-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/27/2024 10:28 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 10.4°C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: CR-24 (280-201339-1), MH-9 (280-201339-2) and CR-6 (280-201339-3). This does not meet regulatory requirements. No ice was in the cooler received. The client was contacted and instructed the laboratory to proceed with the analysis.

The client confirmed that the volume for dissolved metals was filtered in the field. CR-24 (280-201339-1), MH-9 (280-201339-2) and CR-6 (280-201339-3)

Method 6010D - Metals (ICP) - Dissolved
Samples CR-24 (280-201339-1), MH-9 (280-201339-2) and CR-6 (280-201339-3) were analyzed for Metals (ICP) - Dissolved. The samples were prepared on 1/2/2025 and analyzed on 1/2/2025 and 1/8/2025.

The instrument blank for analytical batch 280-680369 contained Be greater than one-half the reporting limit (RL), and were not re-analyzed because sample was ND. The data have been qualified and reported.

The continuing calibration verification (CCV) associated with batch 280-680369 recovered above the upper control limit for Al. The samples (MB) associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 280-680369/46) and (MB 280-680154/1-A).

Method 6020B - Metals (ICP/MS) - Dissolved
Samples CR-24 (280-201339-1), MH-9 (280-201339-2) and CR-6 (280-201339-3) were analyzed for Metals (ICP/MS) - Dissolved. The samples were prepared and analyzed on 1/2/2025.

Method 7470A - Mercury (CVAA) - Dissolved
Samples CR-24 (280-201339-1), MH-9 (280-201339-2) and CR-6 (280-201339-3) were analyzed for Mercury (CVAA) - Dissolved. The samples were prepared and analyzed on 12/31/2024.

Method SM 2540C - Solids, Total Dissolved (TDS)
Samples CR-24 (280-201339-1), MH-9 (280-201339-2) and CR-6 (280-201339-3) were analyzed for Solids, Total Dissolved (TDS). The samples were analyzed on 12/31/2024.

Method 300.0 - Anions, Ion Chromatography - Dissolved
Samples CR-24 (280-201339-1), MH-9 (280-201339-2) and CR-6 (280-201339-3) were analyzed for Anions, Ion Chromatography - Dissolved. The samples were analyzed on 12/28/2024, 1/2/2025 and 1/3/2025.

Samples CR-24 (280-201339-1)[100x], CR-24 (280-201339-1)[5x], MH-9 (280-201339-2)[10x] and CR-6 (280-201339-3)[10x] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample has chromatographic interference that adversely impacted the quantitation of fluoride: CR-24 (280-201339-1) This interference is caused by the presence of an unidentified analyte that co-elutes with fluoride and causes a low bias. This interference was mitigated via dilution due to it consuming fluoride at a 1x dilution.

Job ID: 280-201339-1 (Continued) Eurofins Denver

The following samples have chromatographic interference that adversely impacted the quantitation of fluoride: MH-9 (280-201339-2) and CR-6 (280-201339-3) This interference is caused by an unidentified analyte that co-elutes with fluoride and causes a low bias.

The method blank for analytical batch 280-679731 contained chloride and sulfate above the method detection limit. This target analyte concentration was less than one half the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 300.0 - Anions, Ion Chromatography
Samples CR-24 (280-201339-1), MH-9 (280-201339-2) and CR-6 (280-201339-3) were analyzed for Anions, Ion Chromatography. The samples were analyzed on 12/28/2024.

Sample CR-24 (280-201339-1)[5x] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The method blank for analytical batch 280-679730 contained nitrite above the method detection limit. This target analyte concentration was less than one half the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Detection Summary

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

Client Sample ID: CR-24 — Lab Sample ID: 280-201339-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	2.3	J	10	2.0	ug/L	1		6010D	Dissolved
Aluminum	770		100	18	ug/L	1		6010D	Dissolved
Boron	860		100	1.5	ug/L	1		6010D	Dissolved
Barium	27		10	0.82	ug/L	1		6010D	Dissolved
Beryllium	0.19	J	1.0	0.062	ug/L	1		6010D	Dissolved
Cadmium	0.36	J	5.0	0.13	ug/L	1		6010D	Dissolved
Cobalt	3.0	J	10	0.56	ug/L	1		6010D	Dissolved
Iron	720		100	9.1	ug/L	1		6010D	Dissolved
Lithium	420		20	9.1	ug/L	1		6010D	Dissolved
Manganese	2700		10	0.45	ug/L	1		6010D	Dissolved
Molybdenum	9.1	J	20	1.0	ug/L	1		6010D	Dissolved
Nickel	5.5	J	40	2.6	ug/L	1		6010D	Dissolved
Selenium	67		20	6.3	ug/L	1		6010D	Dissolved
Vanadium	2.6	J	10	0.50	ug/L	1		6010D	Dissolved
Zinc	17	J	20	1.5	ug/L	1		6010D	Dissolved
Uranium	19		1.0	0.030	ug/L	1		6020B	Dissolved
Nitrate as N	12		2.5	0.45	mg/L	5		300.0	Total/NA
Nitrite as N	0.59		0.50	0.049	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	4.5		0.50	0.042	mg/L	1		300.0	Total/NA
Total Dissolved Solids (TDS)	12000		1000	470	mg/L	1		SM 2540C	Total/NA
Chloride	140		3.0	1.0	mg/L	1		300.0	Dissolved
Fluoride	1.8	J	2.5	0.83	mg/L	5		300.0	Dissolved
Sulfate	9200		500	100	mg/L	100		300.0	Dissolved

Client Sample ID: MH-9 — Lab Sample ID: 280-201339-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	2.0	J	10	2.0	ug/L	1		6010D	Dissolved
Aluminum	280		100	18	ug/L	1		6010D	Dissolved
Boron	440		100	1.5	ug/L	1		6010D	Dissolved
Barium	31		10	0.82	ug/L	1		6010D	Dissolved
Cobalt	1.8	J	10	0.56	ug/L	1		6010D	Dissolved
Iron	310		100	9.1	ug/L	1		6010D	Dissolved
Lithium	87		20	9.1	ug/L	1		6010D	Dissolved
Manganese	2100		10	0.45	ug/L	1		6010D	Dissolved
Molybdenum	28		20	1.0	ug/L	1		6010D	Dissolved
Nickel	4.1	J	40	2.6	ug/L	1		6010D	Dissolved
Selenium	50		20	6.3	ug/L	1		6010D	Dissolved
Zinc	11	J	20	1.5	ug/L	1		6010D	Dissolved
Uranium	19		1.0	0.030	ug/L	1		6020B	Dissolved
Nitrate as N	2.1		0.50	0.090	mg/L	1		300.0	Total/NA
Nitrite as N	0.19	J	0.50	0.049	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	2.3		0.50	0.042	mg/L	1		300.0	Total/NA
Total Dissolved Solids (TDS)	2600		40	19	mg/L	1		SM 2540C	Total/NA
Chloride	64		3.0	1.0	mg/L	1		300.0	Dissolved
Fluoride	1.8		0.50	0.17	mg/L	1		300.0	Dissolved
Sulfate	1600		50	10	mg/L	10		300.0	Dissolved

Client Sample ID: CR-6 — Lab Sample ID: 280-201339-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1400		100	18	ug/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Detection Summary

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

Client Sample ID: CR-6 (Continued)

Lab Sample ID: 280-201339-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	300		100	1.5	ug/L	1		6010D	Dissolved
Barium	35		10	0.82	ug/L	1		6010D	Dissolved
Beryllium	0.12	J	1.0	0.062	ug/L	1		6010D	Dissolved
Cobalt	0.61	J	10	0.56	ug/L	1		6010D	Dissolved
Iron	1500		100	9.1	ug/L	1		6010D	Dissolved
Lithium	78		20	9.1	ug/L	1		6010D	Dissolved
Manganese	530		10	0.45	ug/L	1		6010D	Dissolved
Molybdenum	10	J	20	1.0	ug/L	1		6010D	Dissolved
Nickel	3.0	J	40	2.6	ug/L	1		6010D	Dissolved
Selenium	24		20	6.3	ug/L	1		6010D	Dissolved
Vanadium	3.9	J	10	0.50	ug/L	1		6010D	Dissolved
Zinc	21		20	1.5	ug/L	1		6010D	Dissolved
Uranium	12		1.0	0.030	ug/L	1		6020B	Dissolved
Nitrate as N	1.4		0.50	0.090	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	1.4		0.50	0.042	mg/L	1		300.0	Total/NA
Total Dissolved Solids (TDS)	1300		20	9.4	mg/L	1		SM 2540C	Total/NA
Chloride	42		3.0	1.0	mg/L	1		300.0	Dissolved
Fluoride	1.9		0.50	0.17	mg/L	1		300.0	Dissolved
Sulfate	680		50	10	mg/L	10		300.0	Dissolved

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET DEN
6020B	Metals (ICP/MS)	SW846	EET DEN
7470A	Mercury (CVAA)	SW846	EET DEN
300.0	Anions, Ion Chromatography	EPA	EET DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET DEN
7470A	Preparation, Mercury	SW846	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-201339-1	CR-24	Water	12/26/24 14:45	12/27/24 10:28
280-201339-2	MH-9	Water	12/26/24 15:33	12/27/24 10:28
280-201339-3	CR-6	Water	12/26/24 16:00	12/27/24 10:28

Method: SW846 6010D - Metals (ICP) - Dissolved

Client Sample ID: CR-24
Date Collected: 12/26/24 14:45
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	**2.3**	**J**	10	2.0	ug/L		01/02/25 08:30	01/02/25 19:00	1
Aluminum	**770**		100	18	ug/L		01/02/25 08:30	01/02/25 19:00	1
Arsenic	ND		15	4.4	ug/L		01/02/25 08:30	01/02/25 19:00	1
Boron	**860**		100	1.5	ug/L		01/02/25 08:30	01/02/25 19:00	1
Barium	**27**		10	0.82	ug/L		01/02/25 08:30	01/02/25 19:00	1
Beryllium	**0.19**	**J**	1.0	0.062	ug/L		01/02/25 08:30	01/08/25 22:59	1
Cadmium	**0.36**	**J**	5.0	0.13	ug/L		01/02/25 08:30	01/02/25 19:00	1
Cobalt	**3.0**	**J**	10	0.56	ug/L		01/02/25 08:30	01/02/25 19:00	1
Chromium	ND		10	0.66	ug/L		01/02/25 08:30	01/02/25 19:00	1
Copper	ND		15	4.2	ug/L		01/02/25 08:30	01/02/25 19:00	1
Iron	**720**		100	9.1	ug/L		01/02/25 08:30	01/02/25 19:00	1
Lithium	**420**		20	9.1	ug/L		01/02/25 08:30	01/02/25 19:00	1
Manganese	**2700**		10	0.45	ug/L		01/02/25 08:30	01/02/25 19:00	1
Molybdenum	**9.1**	**J**	20	1.0	ug/L		01/02/25 08:30	01/02/25 19:00	1
Nickel	**5.5**	**J**	40	2.6	ug/L		01/02/25 08:30	01/02/25 19:00	1
Lead	ND		9.0	2.7	ug/L		01/02/25 08:30	01/02/25 19:00	1
Antimony	ND		20	5.2	ug/L		01/02/25 08:30	01/02/25 19:00	1
Selenium	**67**		20	6.3	ug/L		01/02/25 08:30	01/02/25 19:00	1
Thallium	ND		15	4.9	ug/L		01/02/25 08:30	01/02/25 19:00	1
Vanadium	**2.6**	**J**	10	0.50	ug/L		01/02/25 08:30	01/02/25 19:00	1
Zinc	**17**	**J**	20	1.5	ug/L		01/02/25 08:30	01/02/25 19:00	1

Client Sample ID: MH-9
Date Collected: 12/26/24 15:33
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	**2.0**	**J**	10	2.0	ug/L		01/02/25 08:30	01/02/25 19:04	1
Aluminum	**280**		100	18	ug/L		01/02/25 08:30	01/02/25 19:04	1
Arsenic	ND		15	4.4	ug/L		01/02/25 08:30	01/02/25 19:04	1
Boron	**440**		100	1.5	ug/L		01/02/25 08:30	01/02/25 19:04	1
Barium	**31**		10	0.82	ug/L		01/02/25 08:30	01/02/25 19:04	1
Beryllium	ND		1.0	0.062	ug/L		01/02/25 08:30	01/02/25 19:04	1
Cadmium	ND		5.0	0.13	ug/L		01/02/25 08:30	01/02/25 19:04	1
Cobalt	**1.8**	**J**	10	0.56	ug/L		01/02/25 08:30	01/02/25 19:04	1
Chromium	ND		10	0.66	ug/L		01/02/25 08:30	01/02/25 19:04	1
Copper	ND		15	4.2	ug/L		01/02/25 08:30	01/02/25 19:04	1
Iron	**310**		100	9.1	ug/L		01/02/25 08:30	01/02/25 19:04	1
Lithium	**87**		20	9.1	ug/L		01/02/25 08:30	01/02/25 19:04	1
Manganese	**2100**		10	0.45	ug/L		01/02/25 08:30	01/02/25 19:04	1
Molybdenum	**28**		20	1.0	ug/L		01/02/25 08:30	01/02/25 19:04	1
Nickel	**4.1**	**J**	40	2.6	ug/L		01/02/25 08:30	01/02/25 19:04	1
Lead	ND		9.0	2.7	ug/L		01/02/25 08:30	01/02/25 19:04	1
Antimony	ND		20	5.2	ug/L		01/02/25 08:30	01/02/25 19:04	1
Selenium	**50**		20	6.3	ug/L		01/02/25 08:30	01/02/25 19:04	1
Thallium	ND		15	4.9	ug/L		01/02/25 08:30	01/02/25 19:04	1
Vanadium	ND		10	0.50	ug/L		01/02/25 08:30	01/02/25 19:04	1
Zinc	**11**	**J**	20	1.5	ug/L		01/02/25 08:30	01/02/25 19:04	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Client Sample ID: CR-6
Date Collected: 12/26/24 16:00
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10	2.0	ug/L		01/02/25 08:30	01/02/25 19:08	1
Aluminum	**1400**		100	18	ug/L		01/02/25 08:30	01/02/25 19:08	1
Arsenic	ND		15	4.4	ug/L		01/02/25 08:30	01/02/25 19:08	1
Boron	**300**		100	1.5	ug/L		01/02/25 08:30	01/02/25 19:08	1
Barium	**35**		10	0.82	ug/L		01/02/25 08:30	01/02/25 19:08	1
Beryllium	**0.12**	**J**	1.0	0.062	ug/L		01/02/25 08:30	01/08/25 23:03	1
Cadmium	ND		5.0	0.13	ug/L		01/02/25 08:30	01/02/25 19:08	1
Cobalt	**0.61**	**J**	10	0.56	ug/L		01/02/25 08:30	01/02/25 19:08	1
Chromium	ND		10	0.66	ug/L		01/02/25 08:30	01/02/25 19:08	1
Copper	ND		15	4.2	ug/L		01/02/25 08:30	01/02/25 19:08	1
Iron	**1500**		100	9.1	ug/L		01/02/25 08:30	01/02/25 19:08	1
Lithium	**78**		20	9.1	ug/L		01/02/25 08:30	01/02/25 19:08	1
Manganese	**530**		10	0.45	ug/L		01/02/25 08:30	01/02/25 19:08	1
Molybdenum	**10**	**J**	20	1.0	ug/L		01/02/25 08:30	01/02/25 19:08	1
Nickel	**3.0**	**J**	40	2.6	ug/L		01/02/25 08:30	01/02/25 19:08	1
Lead	ND		9.0	2.7	ug/L		01/02/25 08:30	01/02/25 19:08	1
Antimony	ND		20	5.2	ug/L		01/02/25 08:30	01/02/25 19:08	1
Selenium	**24**		20	6.3	ug/L		01/02/25 08:30	01/02/25 19:08	1
Thallium	ND		15	4.9	ug/L		01/02/25 08:30	01/02/25 19:08	1
Vanadium	**3.9**	**J**	10	0.50	ug/L		01/02/25 08:30	01/02/25 19:08	1
Zinc	**21**		20	1.5	ug/L		01/02/25 08:30	01/02/25 19:08	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: CR-24
Date Collected: 12/26/24 14:45
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**19**		1.0	0.030	ug/L		01/02/25 08:30	01/02/25 17:38	1

Client Sample ID: MH-9
Date Collected: 12/26/24 15:33
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**19**		1.0	0.030	ug/L		01/02/25 08:30	01/02/25 17:40	1

Client Sample ID: CR-6
Date Collected: 12/26/24 16:00
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**12**		1.0	0.030	ug/L		01/02/25 08:30	01/02/25 17:42	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Client Sample ID: CR-24
Date Collected: 12/26/24 14:45
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		12/31/24 11:50	12/31/24 18:15	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Client Sample ID: MH-9
Date Collected: 12/26/24 15:33
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		12/31/24 11:50	12/31/24 18:18	1

Client Sample ID: CR-6
Date Collected: 12/26/24 16:00
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		12/31/24 11:50	12/31/24 18:21	1

General Chemistry

Client Sample ID: CR-24
Date Collected: 12/26/24 14:45
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N (EPA 300.0)	12		2.5	0.45	mg/L			12/28/24 01:41	5
Nitrite as N (EPA 300.0)	0.59		0.50	0.049	mg/L			12/28/24 01:30	1
Nitrate Nitrite as N (EPA 300.0)	4.5		0.50	0.042	mg/L			12/28/24 01:30	1
Total Dissolved Solids (TDS) (SM 2540C)	12000		1000	470	mg/L			12/31/24 09:09	1

Client Sample ID: MH-9
Date Collected: 12/26/24 15:33
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N (EPA 300.0)	2.1		0.50	0.090	mg/L			12/28/24 01:07	1
Nitrite as N (EPA 300.0)	0.19	J	0.50	0.049	mg/L			12/28/24 01:07	1
Nitrate Nitrite as N (EPA 300.0)	2.3		0.50	0.042	mg/L			12/28/24 01:07	1
Total Dissolved Solids (TDS) (SM 2540C)	2600		40	19	mg/L			12/31/24 09:09	1

Client Sample ID: CR-6
Date Collected: 12/26/24 16:00
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N (EPA 300.0)	1.4		0.50	0.090	mg/L			12/28/24 01:19	1
Nitrite as N (EPA 300.0)	ND		0.50	0.049	mg/L			12/28/24 01:19	1
Nitrate Nitrite as N (EPA 300.0)	1.4		0.50	0.042	mg/L			12/28/24 01:19	1
Total Dissolved Solids (TDS) (SM 2540C)	1300		20	9.4	mg/L			12/31/24 09:09	1

General Chemistry - Dissolved

Client Sample ID: CR-24
Date Collected: 12/26/24 14:45
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	140		3.0	1.0	mg/L			12/28/24 01:30	1
Fluoride (EPA 300.0)	1.8	J	2.5	0.83	mg/L			12/28/24 01:41	5
Sulfate (EPA 300.0)	9200		500	100	mg/L			01/03/25 09:07	100

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

General Chemistry - Dissolved

Client Sample ID: MH-9
Date Collected: 12/26/24 15:33
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	64		3.0	1.0	mg/L			12/28/24 01:07	1
Fluoride (EPA 300.0)	1.8		0.50	0.17	mg/L			12/28/24 01:07	1
Sulfate (EPA 300.0)	1600		50	10	mg/L			01/02/25 23:46	10

Client Sample ID: CR-6
Date Collected: 12/26/24 16:00
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	42		3.0	1.0	mg/L			12/28/24 01:19	1
Fluoride (EPA 300.0)	1.9		0.50	0.17	mg/L			12/28/24 01:19	1
Sulfate (EPA 300.0)	680		50	10	mg/L			01/02/25 23:35	10

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-680154/1-A
Matrix: Water
Analysis Batch: 680369

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 680154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10	2.0	ug/L		01/02/25 08:30	01/02/25 18:29	1
Aluminum	ND	^+	100	18	ug/L		01/02/25 08:30	01/02/25 18:29	1
Arsenic	ND		15	4.4	ug/L		01/02/25 08:30	01/02/25 18:29	1
Boron	ND		100	1.5	ug/L		01/02/25 08:30	01/02/25 18:29	1
Barium	ND		10	0.82	ug/L		01/02/25 08:30	01/02/25 18:29	1
Beryllium	ND		1.0	0.062	ug/L		01/02/25 08:30	01/02/25 18:29	1
Cadmium	ND		5.0	0.13	ug/L		01/02/25 08:30	01/02/25 18:29	1
Cobalt	ND		10	0.56	ug/L		01/02/25 08:30	01/02/25 18:29	1
Chromium	ND		10	0.66	ug/L		01/02/25 08:30	01/02/25 18:29	1
Copper	ND		15	4.2	ug/L		01/02/25 08:30	01/02/25 18:29	1
Iron	9.68	J	100	9.1	ug/L		01/02/25 08:30	01/02/25 18:29	1
Lithium	ND		20	9.1	ug/L		01/02/25 08:30	01/02/25 18:29	1
Manganese	ND		10	0.45	ug/L		01/02/25 08:30	01/02/25 18:29	1
Molybdenum	ND		20	1.0	ug/L		01/02/25 08:30	01/02/25 18:29	1
Nickel	ND		40	2.6	ug/L		01/02/25 08:30	01/02/25 18:29	1
Lead	ND		9.0	2.7	ug/L		01/02/25 08:30	01/02/25 18:29	1
Antimony	ND		20	5.2	ug/L		01/02/25 08:30	01/02/25 18:29	1
Selenium	ND		20	6.3	ug/L		01/02/25 08:30	01/02/25 18:29	1
Thallium	ND		15	4.9	ug/L		01/02/25 08:30	01/02/25 18:29	1
Vanadium	ND		10	0.50	ug/L		01/02/25 08:30	01/02/25 18:29	1
Zinc	ND		20	1.5	ug/L		01/02/25 08:30	01/02/25 18:29	1

Lab Sample ID: LCS 280-680154/2-A
Matrix: Water
Analysis Batch: 680369

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 680154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	50.0	57.1		ug/L		114	86 - 115
Aluminum	10000	10500		ug/L		105	87 - 111
Arsenic	1000	1060		ug/L		106	88 - 110
Boron	2000	2150		ug/L		107	86 - 110
Barium	1000	1050		ug/L		105	90 - 112
Beryllium	1000	1010		ug/L		101	89 - 113
Cadmium	1000	1010		ug/L		101	88 - 111
Cobalt	1000	1010		ug/L		101	89 - 111
Chromium	1000	1030		ug/L		103	90 - 113
Copper	1000	1030		ug/L		103	86 - 112
Iron	10000	10800		ug/L		108	89 - 115
Lithium	1000	1030		ug/L		103	90 - 112
Manganese	1000	1040		ug/L		104	90 - 110
Molybdenum	1000	1050		ug/L		105	90 - 110
Nickel	1000	1020		ug/L		102	89 - 111
Lead	1000	1060		ug/L		106	89 - 110
Antimony	1000	1030		ug/L		103	88 - 110
Selenium	1000	1030		ug/L		103	85 - 112
Thallium	1000	1040		ug/L		104	88 - 110
Vanadium	1000	1050		ug/L		105	90 - 111
Zinc	1000	1080		ug/L		108	85 - 111

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-680154/1-A
Matrix: Water
Analysis Batch: 680332

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 680154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	0.0420	J	1.0	0.030	ug/L		01/02/25 08:30	01/02/25 17:33	1

Lab Sample ID: LCS 280-680154/13-A
Matrix: Water
Analysis Batch: 680332

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 680154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	40.0	40.3		ug/L		101	85 - 119

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 280-680090/1-A
Matrix: Water
Analysis Batch: 680187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680090

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		12/31/24 11:50	12/31/24 18:10	1

Lab Sample ID: LCS 280-680090/2-A
Matrix: Water
Analysis Batch: 680187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.98		ug/L		100	84 - 120

Lab Sample ID: 280-201339-3 MS
Matrix: Water
Analysis Batch: 680187

Client Sample ID: CR-6
Prep Type: Dissolved
Prep Batch: 680090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		5.00	4.98		ug/L		100	75 - 125

Lab Sample ID: 280-201339-3 MSD
Matrix: Water
Analysis Batch: 680187

Client Sample ID: CR-6
Prep Type: Dissolved
Prep Batch: 680090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		5.00	5.02		ug/L		100	75 - 125	1	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-679730/6
Matrix: Water
Analysis Batch: 679730

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.50	0.090	mg/L			12/27/24 11:38	1
Nitrite as N	ND		0.50	0.049	mg/L			12/27/24 11:38	1
Nitrate Nitrite as N	0.0599	J	0.50	0.042	mg/L			12/27/24 11:38	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 280-679730/4
Matrix: Water
Analysis Batch: 679730

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			5.00	4.91		mg/L		98	90 - 110		
Nitrite as N			5.00	5.02		mg/L		100	90 - 110		
Nitrate Nitrite as N			10.0	9.93		mg/L		99	90 - 110		

Lab Sample ID: LCSD 280-679730/5
Matrix: Water
Analysis Batch: 679730

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			5.00	4.90		mg/L		98	90 - 110	0	10
Nitrite as N			5.00	5.02		mg/L		100	90 - 110	0	10
Nitrate Nitrite as N			10.0	9.92		mg/L		99	90 - 110	0	10

Lab Sample ID: MRL 280-679730/3
Matrix: Water
Analysis Batch: 679730

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			0.500	0.496	J	mg/L		99	50 - 150		
Nitrite as N			0.500	0.500		mg/L		100	50 - 150		
Nitrate Nitrite as N			1.00	0.996		mg/L		100	50 - 150		

Lab Sample ID: MB 280-679731/6
Matrix: Water
Analysis Batch: 679731

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.20	J	3.0	1.0	mg/L			12/27/24 11:38	1
Fluoride	ND		0.50	0.17	mg/L			12/27/24 11:38	1

Lab Sample ID: LCS 280-679731/4
Matrix: Water
Analysis Batch: 679731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			100	105		mg/L		105	90 - 110		
Fluoride			5.00	4.86		mg/L		97	90 - 110		

Lab Sample ID: LCSD 280-679731/5
Matrix: Water
Analysis Batch: 679731

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			100	105		mg/L		105	90 - 110	0	10
Fluoride			5.00	4.82		mg/L		96	90 - 110	1	10

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-679731/3
Matrix: Water
Analysis Batch: 679731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5.00	4.79		mg/L		96	50 - 150
Fluoride	0.500	0.568		mg/L		114	50 - 150

Lab Sample ID: MB 280-680228/46
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.0	mg/L			01/03/25 00:41	1

Lab Sample ID: MB 280-680228/6
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.0	mg/L			01/02/25 11:36	1

Lab Sample ID: MB 280-680228/97
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.0	mg/L			01/03/25 10:02	1

Lab Sample ID: LCS 280-680228/4
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	100	96.4		mg/L		96	90 - 110

Lab Sample ID: LCS 280-680228/44
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	100	100		mg/L		100	90 - 110

Lab Sample ID: LCS 280-680228/95
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	100	104		mg/L		104	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-680228/45
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			100	99.8		mg/L		100	90 - 110	0	10

Lab Sample ID: LCSD 280-680228/5
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			100	96.2		mg/L		96	90 - 110	0	10

Lab Sample ID: LCSD 280-680228/96
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			100	103		mg/L		103	90 - 110	0	10

Lab Sample ID: MRL 280-680228/3
Matrix: Water
Analysis Batch: 680228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			5.00	4.16	J	mg/L		83	50 - 150		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-680061/1
Matrix: Water
Analysis Batch: 680061

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		10	4.7	mg/L			12/31/24 09:09	1

Lab Sample ID: LCS 280-680061/2
Matrix: Water
Analysis Batch: 680061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids (TDS)			501	498		mg/L		99	88 - 114		

QC Association Summary

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

Metals

Prep Batch: 680090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Dissolved	Water	7470A	
280-201339-2	MH-9	Dissolved	Water	7470A	
280-201339-3	CR-6	Dissolved	Water	7470A	
MB 280-680090/1-A	Method Blank	Total/NA	Water	7470A	
LCS 280-680090/2-A	Lab Control Sample	Total/NA	Water	7470A	
280-201339-3 MS	CR-6	Dissolved	Water	7470A	
280-201339-3 MSD	CR-6	Dissolved	Water	7470A	

Prep Batch: 680154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Dissolved	Water	3005A	
280-201339-2	MH-9	Dissolved	Water	3005A	
280-201339-3	CR-6	Dissolved	Water	3005A	
MB 280-680154/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-680154/13-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 280-680154/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 680187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Dissolved	Water	7470A	680090
280-201339-2	MH-9	Dissolved	Water	7470A	680090
280-201339-3	CR-6	Dissolved	Water	7470A	680090
MB 280-680090/1-A	Method Blank	Total/NA	Water	7470A	680090
LCS 280-680090/2-A	Lab Control Sample	Total/NA	Water	7470A	680090
280-201339-3 MS	CR-6	Dissolved	Water	7470A	680090
280-201339-3 MSD	CR-6	Dissolved	Water	7470A	680090

Analysis Batch: 680332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Dissolved	Water	6020B	680154
280-201339-2	MH-9	Dissolved	Water	6020B	680154
280-201339-3	CR-6	Dissolved	Water	6020B	680154
MB 280-680154/1-A	Method Blank	Total Recoverable	Water	6020B	680154
LCS 280-680154/13-A	Lab Control Sample	Total Recoverable	Water	6020B	680154

Analysis Batch: 680369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Dissolved	Water	6010D	680154
280-201339-2	MH-9	Dissolved	Water	6010D	680154
280-201339-3	CR-6	Dissolved	Water	6010D	680154
MB 280-680154/1-A	Method Blank	Total Recoverable	Water	6010D	680154
LCS 280-680154/2-A	Lab Control Sample	Total Recoverable	Water	6010D	680154

Analysis Batch: 680882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Dissolved	Water	6010D	680154
280-201339-3	CR-6	Dissolved	Water	6010D	680154

QC Association Summary

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

General Chemistry

Analysis Batch: 679730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Total/NA	Water	300.0	
280-201339-1	CR-24	Total/NA	Water	300.0	
280-201339-2	MH-9	Total/NA	Water	300.0	
280-201339-3	CR-6	Total/NA	Water	300.0	
MB 280-679730/6	Method Blank	Total/NA	Water	300.0	
LCS 280-679730/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-679730/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-679730/3	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 679731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Dissolved	Water	300.0	
280-201339-1	CR-24	Dissolved	Water	300.0	
280-201339-2	MH-9	Dissolved	Water	300.0	
280-201339-3	CR-6	Dissolved	Water	300.0	
MB 280-679731/6	Method Blank	Total/NA	Water	300.0	
LCS 280-679731/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-679731/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-679731/3	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 680061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Total/NA	Water	SM 2540C	
280-201339-2	MH-9	Total/NA	Water	SM 2540C	
280-201339-3	CR-6	Total/NA	Water	SM 2540C	
MB 280-680061/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-680061/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 680228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-201339-1	CR-24	Dissolved	Water	300.0	
280-201339-2	MH-9	Dissolved	Water	300.0	
280-201339-3	CR-6	Dissolved	Water	300.0	
MB 280-680228/46	Method Blank	Total/NA	Water	300.0	
MB 280-680228/6	Method Blank	Total/NA	Water	300.0	
MB 280-680228/97	Method Blank	Total/NA	Water	300.0	
LCS 280-680228/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 280-680228/44	Lab Control Sample	Total/NA	Water	300.0	
LCS 280-680228/95	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-680228/45	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 280-680228/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 280-680228/96	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-680228/3	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

Client Sample ID: CR-24

Lab Sample ID: 280-201339-1

Date Collected: 12/26/24 14:45

Matrix: Water

Date Received: 12/27/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	680154	01/02/25 08:30	SMK	EET DEN
Dissolved	Analysis	6010D		1			680369	01/02/25 19:00	ADL	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	680154	01/02/25 08:30	SMK	EET DEN
Dissolved	Analysis	6010D		1			680882	01/08/25 22:59	NKC	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	680154	01/02/25 08:30	SMK	EET DEN
Dissolved	Analysis	6020B		1			680332	01/02/25 17:38	LMT	EET DEN
Dissolved	Prep	7470A			30 mL	50 mL	680090	12/31/24 11:50	AES	EET DEN
Dissolved	Analysis	7470A		1			680187	12/31/24 18:15	AES	EET DEN
Dissolved	Analysis	300.0		1	10 mL	10 mL	679731	12/28/24 01:30	EJS	EET DEN
Dissolved	Analysis	300.0		5	10 mL	10 mL	679731	12/28/24 01:41	EJS	EET DEN
Dissolved	Analysis	300.0		100	10 mL	10 mL	680228	01/03/25 09:07	IRC	EET DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	679730	12/28/24 01:30	EJS	EET DEN
Total/NA	Analysis	300.0		5	10 mL	10 mL	679730	12/28/24 01:41	EJS	EET DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	680061	12/31/24 09:09	BRD	EET DEN

Client Sample ID: MH-9

Lab Sample ID: 280-201339-2

Date Collected: 12/26/24 15:33

Matrix: Water

Date Received: 12/27/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	680154	01/02/25 08:30	SMK	EET DEN
Dissolved	Analysis	6010D		1			680369	01/02/25 19:04	ADL	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	680154	01/02/25 08:30	SMK	EET DEN
Dissolved	Analysis	6020B		1			680332	01/02/25 17:40	LMT	EET DEN
Dissolved	Prep	7470A			30 mL	50 mL	680090	12/31/24 11:50	AES	EET DEN
Dissolved	Analysis	7470A		1			680187	12/31/24 18:18	AES	EET DEN
Dissolved	Analysis	300.0		1	10 mL	10 mL	679731	12/28/24 01:07	EJS	EET DEN
Dissolved	Analysis	300.0		10	10 mL	10 mL	680228	01/02/25 23:46	IRC	EET DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	679730	12/28/24 01:07	EJS	EET DEN
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	680061	12/31/24 09:09	BRD	EET DEN

Client Sample ID: CR-6

Lab Sample ID: 280-201339-3

Date Collected: 12/26/24 16:00

Matrix: Water

Date Received: 12/27/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	680154	01/02/25 08:30	SMK	EET DEN
Dissolved	Analysis	6010D		1			680369	01/02/25 19:08	ADL	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	680154	01/02/25 08:30	SMK	EET DEN
Dissolved	Analysis	6010D		1			680882	01/08/25 23:03	NKC	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	680154	01/02/25 08:30	SMK	EET DEN
Dissolved	Analysis	6020B		1			680332	01/02/25 17:42	LMT	EET DEN
Dissolved	Prep	7470A			30 mL	50 mL	680090	12/31/24 11:50	AES	EET DEN
Dissolved	Analysis	7470A		1			680187	12/31/24 18:21	AES	EET DEN

Lab Chronicle

Client: Triview Metropolitan District
Project/Site: Quarterly Well Sampling

Job ID: 280-201339-1

Client Sample ID: CR-6

Date Collected: 12/26/24 16:00
Date Received: 12/27/24 10:28

Lab Sample ID: 280-201339-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	300.0		1	10 mL	10 mL	679731	12/28/24 01:19	EJS	EET DEN
Dissolved	Analysis	300.0		10	10 mL	10 mL	680228	01/02/25 23:35	IRC	EET DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	679730	12/28/24 01:19	EJS	EET DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	680061	12/31/24 09:09	BRD	EET DEN

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Triview Metropolitan District
Job ID: 280-201339-1
Project/Site: Quarterly Well Sampling

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-25
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	19-047-0	04-21-25
California	State	2513	01-08-25
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-25
Connecticut	State	PH-0686	09-30-26
Florida	NELAP	E87667-57	06-30-25
Georgia	State	4025-011	01-08-25
Illinois	NELAP	2000172024-9	05-31-25
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	04-30-25
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-25
Minnesota	NELAP	1788752	12-31-25
Nevada	State	CO00026	07-31-25
New Hampshire	NELAP	2053	04-28-25
New Jersey	NELAP	230001	06-30-25
New York	NELAP	59923	04-01-25
North Dakota	State	R-034	01-08-25
Oklahoma	NELAP	8614	08-31-25
Oregon	NELAP	4025	01-08-25
Pennsylvania	NELAP	013	07-31-25
South Carolina	State	72002001	01-08-24 *
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-25
Virginia	NELAP	460232	06-14-25
Washington	State	C583	08-03-25
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-25
Wyoming (UST)	A2LA	2907.01	10-31-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: MGP	Lab PM: Servas, Cassie	Carrier Tracking No(s):	COC No:
Client Contact: Gary Potter	Phone: 719 937 1959	E-Mail: Cassie.Servas@et.eurofinsus.com	State of Origin:	Page: Page __ of __
Company: Triview Metropolitan District	PWSID:			Job #:

Address: 16055 Old Forest Point Suite 302	Due Date Requested:	Analysis Requested	Preservation Codes: N - None D - HNO3
City: Monument	TAT Requested (days):		
State, Zip: CO, 80132	Compliance Project: Δ Yes Δ No		
Phone: 719-488-6868(Tel)	PO #: Pre-Payment by CC Required		
Email: Gpotter@triviewmetro.com	WO #:		
Project Name: Quarterly Well Sampling	Project #: 28027866		
Site: Central Reservior	SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D, 300_48HR- Cl, F, SO4, NO2, NO3	6010D, 6020B, 7470A- Dissolved metals+Hg+U	2540C_Calcd - TDS	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N		
CR-24	12/26/24	2:45 pm	G	W			X	X	X	3	
MH-9	12/26/24	3:37 pm	G	W			X	X	X	3	
CR-6	12/26/24	4:00 pm	G	W			X	X	X	3	

280-201339 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Mark G. Potter	12/27/24 8:00 am	Triview metro		12/27/24 10:28	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 10.2 IR PABU @ 0.2

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: Triview Metropolitan District

Job Number: 280-201339-1

Login Number: 201339
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Refer to Job Narrative for details.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Field Data Collected at Central Reservoir 12/26/24

Well	Depth to Water from Rim (ft)	Height of Rim from Grade (ft)	pH	Temp	Conductivity (µs/cm)
CR 24	31.5	2.90	6.2	13.5	13.5
TMH 3	dry @ 31.3	2.65			
MH 9	17.2	2.61	6.1	14.6	4175
CR 6	17.0	2.71	6.33	14.5	2007

APPENDIX A

GROUNDWATER MODELING TECHNICAL MEMORANDUM

Schnabel ENGINEERING
T 303.651.1468 / F 303.651.1469
600 S. Airport Road, Suite A-205 / Longmont, CO 80503
schnabel-eng.com

APPENDIX A
CENTRAL RESERVOIR GROUNDWATER MODELING TECHNICAL MEMORANDUM

TO:	Susan Rainey, PE	**DATE:**	July 14, 2025
COMPANY:	Schnabel Engineering	**SUBJECT:**	Central Reservoir Groundwater Model
ADDRESS:	600 South Airport Road Longmont, CO 80503	**PROJECT NAME/NO.:**	Central Reservoir Construction 20C26014.060
FROM:	Victor deWolfe, PE, PG Sampson Ash, PG	**CC:**	

1.0 INTRODUCTION

This memorandum discusses the groundwater impact analysis at the proposed Central Reservoir mine in the Arkansas River Valley in Pueblo County, Colorado. The site is located approximately 15 miles east of the City of Pueblo, completely within Section 36, Township 20 South, Range 63 West of the 6th P.M. The site is on the southeast corner of US Highway 50 and Nyberg Road with the Excelsior Ditch running along the north edge of the alluvial valley between the highway and the site. The mine plan for the site includes installing a below grade cutoff wall, or slurry wall, as shown on **Figure A1**. The recently constructed Southwest Reservoir slurry wall is also shown. The purpose of the analysis is to provide information related to the potential impacts to the groundwater table in the vicinity of the site. This includes mounding upgradient and shadowing downgradient of the proposed slurry wall at the site.

A groundwater model was constructed to evaluate the impact of the proposed slurry wall on groundwater levels. The objectives of the groundwater model are to:

1. Approximate the existing (pre-slurry wall) hydrogeologic conditions using available data.
2. Simulate the hydrogeologic effects of the Central Reservoir slurry wall by predicting potential groundwater elevations around the perimeter of the wall.
3. Simulate the hydrogeologic effects of the Central and Santa Barbara Reservoir slurry walls by predicting potential groundwater elevations around the perimeter of the walls.
4. Estimate quantity of seepage from the Excelsior Ditch.

To satisfy these objectives, three steady-state groundwater models were constructed for:

1. Existing steady state conditions
2. As-Constructed Central Reservoir slurry wall conditions
3. As-Constructed Central Reservoir and Santa Barbara Reservoir slurry wall conditions

This modeling memorandum presents the geologic setting; a general site conceptual model of the aquifer system; the groundwater modeling software used; construction of the model; calibration of the model in terms of target residuals and mass balance; and finally, a discussion of the predictive simulations and conclusions. The groundwater modeling was conducted in general conformance with ASTM standards for groundwater modeling.

2.0 GEOLOGIC SETTING

2.1 Geotechnical Investigations

The Central Reservoir site is located in the Colorado Piedmont Physiographic Province between the Southern Rocky Mountain Province to the west and the Great Plains Province to the east. The site is approximately 15 miles east of Pueblo and 41 miles east of the Wet Mountains, which consist of Cambrian age (1,700 - 1,800 m.y.) metamorphic rocks. The site is along the Arkansas River where regional geologic mapping (Scott et al., 1978) shows the near surface bedrock to be the Upper Cretaceous Pierre Shale. The shale is a thick sequence of clayey to silty marine shales containing fossils and local beds of limestone. The bedrock is overlain by Holocene (Quaternary age) sand and gravel deposits of the Piney Creek and Post Piney Creek alluvium deposited by the Arkansas River. These alluvial deposits are covered by calcareous overburden clay soils deposited by residual and slope wash processes. The overburden clay soils were eroded from sub-cropping Pierre Shale bedrock to the north.

Subsurface lithology data for the model were obtained from the 2007 geotechnical investigation on the property, consisting of 31 borings, the geotechnical borings from the Southwest Reservoir investigation. These boring locations are shown on **Figure A1**. The information from this investigation was used along with existing data from other projects in the domain to create the bedrock contours used in the groundwater model.

2.2 Site Conceptual Model

The conceptual model of the aquifer system analyzed for this investigation consists of one layer; the unconfined alluvial aquifer of the Arkansas River. Hydrologically the aquifer is bounded on the sides and bottom by bedrock consisting of low permeability Pierre Shale. These boundaries act as no-flow boundaries because the permeability of the rock is much lower than that of the alluvial aquifer. The aquifer is comprised of alluvial deposits, which consist primarily of well graded to poorly graded gravelly sand with minor mud lenses. The hydraulic conductivity (K) of the aquifer is generally around 500 feet per day (Blue Earth Solutions, 2013). The saturated thickness typically averages about 25 to 30 feet. The principal source of water for the aquifer is the Arkansas River. Other minor sources include precipitation recharge, irrigation recharge and seepage from irrigation ditches. In the project area, the Arkansas River acts as a source because it is a losing stream, that is, the groundwater heads are lower than the stage of the river. Sinks include well pumping, and evapotranspiration. Steady-state conditions are simulated because the maximum water level rise is of principal interest and the time required to reach steady state is not of concern.

The model domain is set within the alluvial floodplain of the Arkansas River, the primary surface hydraulic feature in the area. The topography slopes gently from northwest to southeast. The near surface bedrock is the Cretaceous Pierre Shale. The bedrock outcrops as bluffs along the southern margin of the river (Figure A1). Land use in the area consists of mining and agricultural uses.

3.0 ANALYSIS APPROACH – STEADY-STATE GROUNDWATER MODELING

3.1 Overview

The Central groundwater model was developed using a combination Geographic Information System (GIS) database and GIS data analysis techniques (ESRI, 2024) as well as Leapfrog geologic modeling to create model layers (Leapfrog Geo, 2024). That data was then imported into the software

Groundwater Vistas Version 7.0 (Rumbaugh & Rumbaugh, 2015), a graphical user interface for MODFLOW.

3.2 Groundwater Modeling Software

The MODFLOW-2005 computer code was used to simulate groundwater flow in Groundwater Vistas Version 7.0 (Rumbaugh & Rumbaugh, 2015), by solving the 3-dimensional groundwater flow equation using a finite-difference method where the model domain is subdivided into a grid of cells, and the hydraulic head is calculated at the centroid of each cell (Harbaugh, 2005). Groundwater flows into and out of the model via head-dependent flux boundaries. These flows are calculated in the same manner for each simulation. Pre- and post-processing of MODFLOW-2005 files were completed using Groundwater Vistas. Groundwater Vistas is a graphical user interface that facilitates model construction, runs MODFLOW, data analysis and data presentation. It summarizes results as contours, shaded contours, velocity vectors and detailed mass balance analyses. This section discusses the modeling assumptions, limitations, solution techniques, and the way that they affect the models.

When analyzing the groundwater flows in the model, as implemented, MODFLOW-2005 simulates the system as an unconfined aquifer with one value of hydraulic conductivity. One limitation is that cells can go “dry” or “flood”. If the calculated head is above the top of the aquifer (ground surface) at any model cell, then that cell is flooded and will be treated as if the aquifer is confined (i.e., the saturated thickness will equal the top-elevation minus the bottom-elevation). If the calculated head falls below the bottom of the aquifer, that cell is dry and will be assigned a zero value for hydraulic conductivity.

The preconditioned conjugate-gradient with Newton (PCGN) solver package of MODFLOW-2005 was used to solve the groundwater flow equations for the model. It combines the efficiency of the conjugate gradient method with Newton-Raphson iteration to handle nonlinearities commonly found in unconfined aquifers and head-dependent boundary conditions. The solver uses preconditioning techniques to improve convergence speed and stability, making it well-suited for large, complex, and nonlinear models where traditional solvers like PCG or SOR may struggle.

This package defines the number of outer and inner solver iterations, as well as criteria for both maximum head and residual change between iterations before allowing convergence. Tolerances for the maximum change in head and flow residual between iterations were specified as $1x10^{-3}$ feet and 100 cubic feet per day (cfd), respectively. These tolerances result in a mass balance of less than 0.001%, indicting model convergence and solution accuracy. Steady-state conditions were simulated because the maximum water level rise is of principal interest and the time required to reach steady state is not of concern.

3.3 Model Geometry and Spatial Discretization

The model was constructed by importing shapefiles made in GIS representing aquifer parameters and boundary conditions into Groundwater Vistas. The model domain is a rectangular area divided into 1,064 columns and 536 rows, creating a grid of cells measuring 25 feet on each side. Active cells contain values representing the following parameters:

1. The elevation of the top of the aquifer
2. The elevation of the bottom of the aquifer

3. The elevation of the overburden clay and sand and gravel interface
4. The hydraulic conductivity of the aquifer and overburden materials
5. The recharge applied to the cell
6. The initial groundwater head within the aquifer
7. The boundary conditions for the model

3.4 Layer Construction

The maximum top of the alluvial aquifer is represented by the topography of the ground surface. Topographic data used for this model input are from a 1-meter digital elevation model (DEM) obtained from the Colorado Hazard Mapping & Risk Map Portal (CWCB, 2024).

The bottom of the aquifer and model is the low permeability Pierre Shale bedrock. Therefore, the model contains an elevation map of the bedrock surface. To create this surface, bedrock elevation data was obtained from the geotechnical investigation described previously in this memo, data from previous projects done in the area, and publicly available data from Colorado's Decision Support Systems (CDWR, 2024). The bedrock elevations were contoured in AutoCAD. Overall, the spatial reliability of the bedrock data is considered good and deemed appropriate for the scope of this groundwater model.

The DEM and the resulting bedrock elevation contour map were imported into Leapfrog to create the top and bottom of the alluvial aquifer. Due to the 10x10 foot grid size used, the topographic and rock elevation data were averaged within that area resulting in some variation between model elevations and contoured ground/rock elevations.

The same process was used for the interface between the overburden clays and the sand and gravel aquifer. In general, the top of the sand and gravel (bottom of clay) is above the groundwater table. The Excelsior Ditch is founded primarily in the overburden clays or Pierre Shale bedrock at the surface of the model.

3.5 Aquifer Properties

The low permeability Pierre Shale bedrock forms the bottom of the alluvial aquifer. Therefore, the model also contains an elevation map of the bedrock surface. To create this surface, bedrock elevation data was obtained from several sources. The primary data sources include geotechnical investigations for gravel pit reservoir feasibility and design projects, including for the Southwest Reservoir, the Rich Pit, and the Central Reservoir. Additionally, well data from the Colorado State Engineer's Office (SEO) were used in conjunction with the USGS digital elevation model (DEM) to obtain groundwater and bedrock elevations. The bedrock elevation data were contoured in the GIS and adjusted the contours were adjusted using geologic judgment. The result is a bedrock elevation contour map imported into Groundwater Vistas as the bottom of the aquifer. Well construction reports for the SEO wells were reviewed and if bedrock depth was different from well depth then a change was made. The locations of the SEO wells are relatively accurate because all the wells were located by distances from section lines. Overall, the spatial reliability of the bedrock data is considered good and deemed appropriate for the scope of this groundwater model.

The hydraulic conductivity (K) of the alluvial aquifer used in the model was input as 500 feet per day (fpd). This value is based on the Hydrogeologic Evaluation performed by Blue Earth Solutions (2013).

We assumed an anisotropy ratio of 0.1 (Kv/Kr), meaning that the value in the vertical direction (Kv) is one order of magnitude lower than the value in the radial direction (Kr). For the overburden clays and the wash fines, a hydraulic conductivity of 2.8 feet per day (1E-05 cm/s) was used with an anisotropy ratio of 0.1.

A groundwater elevation contour map for the alluvial aquifer provides the starting heads for the finite difference solution and defines constant head boundary values. This surface was developed using the alluvial water level contours from 1966 data compiled by Nelson et.al. (1989) and field measurements taken in May 2025. The 1966 contours were roughly adjusted for the shift in vertical datums between the North American Vertical Datum (NAVD) of 1929 to NAVD88.

3.6 Boundary Conditions

The boundary conditions used for the model include the following:

- Constant head boundaries were used for the upgradient and downgradient alluvial underflow boundaries. Specified groundwater head values (elevations) from the input groundwater surface are assigned to the constant head boundaries and do not vary during the simulations.
- The River package was used to model the Arkansas River.
- Drain boundaries include the Excelsior Ditch, the unlined ponds and mines, the AGRA ponds and Chico Creek within the model and were simulated using the MODFLOW Drain Package which allows water to be removed from the adjacent cells as determined by the hydraulic gradient between the aquifer and the ditch and stream as a function of drain conductance.
- No Flow boundaries represent the northern model boundary where bedrock is shallow as well as the slurry walls in the model domain.

These boundary conditions define the sources and sinks for the water budget of the model.

The primary sources of inflows (sources) into the alluvial aquifer are:

1. Subsurface inflow from the upgradient end of the aquifer and tributary valleys
2. Infiltration of precipitation and irrigation
3. Seepage from unlined ditches or reservoirs (depending on time of year)
4. Recharge from the Arkansas River where it is a losing stream

The primary sink or area of outflow from the alluvial aquifer is the Arkansas River where it is a gaining stream. However, water outflow from the aquifer also includes:

1. Subsurface outflow at the downgradient end of the aquifer
2. Seepage into unlined reservoirs or mines
3. Seepage into Chico Creek or other unlined (depending on time of year)
4. Well withdraws

Well pumping compared to irrigation recharge is likely a net sink, but this magnitude is likely negligible and was therefore not included in the model. Dewatered mines are included as constant head boundaries and represent sinks. The sources include the Arkansas River, alluvial underflow under the

western boundary, and recharge from the Excelsior Ditch in the model domain. No other recharge sources are included in the model, as precipitation is also considered a negligible source within the domain. The system is assumed to be in equilibrium under pre-construction and post-construction conditions. The model domain is inactive outside of the defined boundary conditions. The resulting model conforms to the conceptual model as presented in Section 2.

The Excelsior Ditch is an earthen ditch that is used to deliver water for irrigation. In the model we used a constant flux boundary, which means the ditch is treated as providing a steady, fixed rate of recharge to the aquifer. This setup is commonly implemented using the Recharge (RCH) package in MODFLOW, where the recharge rate (e.g., in units of length/time ft/day) is applied to the model cells beneath the ditch. It assumes that the ditch provides a reliable and continuous source of water that infiltrates at a known rate, making it a simplified representation of recharge. For this model, the average ditch flows of 60 cfs and leakage rate of 17 percent were used to calculate a recharge rate of 1.1 feet per day for the cells where the ditch is located.

Initial model runs showed that no groundwater enters Chico Creek or the AGRA ponds because the groundwater level is too deep. Therefore, these features were excluded from the model.

4.0 CALIBRATION

4.1 Calibration Process

Model Calibration is an iterative process of adjusting model parameters (aquifer properties) and boundary conditions to obtain a reasonable match between field measurements and model-computed values. Calibration was conducted for the steady-state models using existing measured monitoring well piezometric head data, which represent conditions observed in May 2025.

The calibration targets for the two different models include the measured groundwater elevations observed in the 9 monitoring wells. The monitoring wells were the primary targets as they were recorded on specific dates, offering high reliability and spatial relevance; while the geotechnical borings and publicly available data were secondary targets as they included data outside the time frame of calibration, which while useful for broader context is considered less reliable due to potential inaccuracies and differences in aquifer conditions. The model was calibrated primarily to the project-specific data, with the secondary dataset used to support regional trends and assess model robustness.

During calibration, refinements were made to the horizontal hydraulic conductivity, the anisotropy ratio, recharge from the Excelsior Ditch, and conductance into or out of known drains, unlined pits, and rivers. Model calibration acceptability is subjective, but the following general guidelines for judging calibration sufficient for this model included:

- Overall calibration quality is determined through statistical comparison of model results with field measurements and observations. This model includes only water elevations.
- The primary statistic used in gauging and reporting “best fit” was the squared error of the measured and computed groundwater elevations.
- Calibration continued until the coefficient of determination (R^2) between the measured and observed groundwater elevations was within 10% of 1.

The goals of the predictive simulation targets are:

1. To show how field measured groundwater heads differ from those in the steady-state simulation.
2. To show how pre-slurry wall groundwater heads differ from those in the predictive simulations.

4.2 Calibration Results

The model is simple and homogeneous, containing heads that are well constrained by measured values for boundary conditions as well as a reasonable estimate of hydraulic conductivity. The calibration targets used for the pre-slurry wall condition steady state model illustrate that the input groundwater heads are generally within five feet of the measured values throughout the entire model. However, near the site where the mounding is expected the modeled heads are within two feet of the observed heads. Calibration plots for the two calibrated models show the residuals (Observed Head Values Vs. Modeled Head Values) for the site specific and publicly available data in Figure A2. The calibrated model resulted in an R^2 value of 0.86 at the end of the calibration process.

The mass balance reported by MODFLOW for the existing conditions model is reported in cubic feet per day (cfd) as follows:

Existing Conditions	
Inflows	= 777,976.2 cfd
Outflows	= 778,011.1 cfd
Difference	= -34.9 cfd (0.0045%)

This illustrates that the initial steady-state models are accurately solved. Because the pre-slurry wall groundwater table represents data from measured groundwater levels, and the mass balance is accurate, this suggests the model is sufficiently calibrated to be used for predicting water levels after construction of the slurry walls. For the existing conditions simulation, the Excelsior Ditch provides 205,312 cfd of recharge to the aquifer.

5.0 PREDICTIVE SIMULATIONS

Using the steady state model for pre-slurry wall condition as the base model, predictive simulations were performed for groundwater mounding after the proposed Central Reservoir and Santa Barbara slurry walls are constructed.

5.1 Predicted Groundwater Mounding for Central Reservoir

To understand the magnitude and extent of potential groundwater mounding upgradient of the Central Reservoir slurry wall, a steady state simulation including the wall. The existing conditions model was changed only by inputting the Central slurry wall as a no-flow boundary.

All other aquifer parameters and boundary conditions remained unchanged. Initial heads were the model simulated heads from the existing conditions steady state model. The steady state model for the post-slurry wall conditions generally produced higher groundwater elevation heads than those produced for the existing steady state condition.

The results shown on **Figure A3** as drawdown contours. The negative numbers indicate mounding. The contours show that the maximum groundwater mounding is about 3.0 feet outside the north and west sides of the proposed slurry wall. This mounding, however, is not near the surface, as the corresponding depth to water is around 23 feet deep. The maximum shadowing caused by the Central slurry wall is about 0.5 feet southeast of the wall.

5.2 Predicted Groundwater Mounding for Central Reservoir and Santa Barbara Reservoir

The third steady state model was used to understand the groundwater mounding affects with both the Central and Santa Barbara slurry walls considered. The results are shown in **Figure A4**, indicating a maximum groundwater mounding of about 3.5 feet in north and west of the Central slurry wall. Again, this mounding corresponds with a depth to groundwater of about 22 to 23 feet deep. The maximum shadowing is shown to be about 0.5 feet southeast of the two proposed slurry walls.

6.0 CHANGE IN DISCHARGE TO ACCRETION BOUNDARIES

The installation of slurry walls around the site has altered groundwater flow dynamics, resulting in changes to discharge at accretion boundaries. By reducing horizontal hydraulic connectivity of the aquifer, the slurry walls have modified the natural flow regime, limiting groundwater movement into and out of the enclosed area. As a result, discharge patterns at accretion boundaries have shifted, particularly along downgradient zones where the walls intersect historic flow paths. These changes were incorporated into the groundwater model by updating boundary conditions and representing the slurry walls as zones of low permeability or no-flow barriers. The model was subsequently recalibrated using observed groundwater levels and flow data to ensure it reflects post-construction conditions. A summary of the changes in flow at accretion boundaries is provided in the tables below.

Table 1: Change in Discharge to Accretion Boundaries with Central Reservoir Slurry Wall

Name	Discharge into Accretion Boundaries (CFD)		Difference (CFD)	Difference (CFS)	Difference (GPM)	Percent Difference (%)
	Prior to Construction	After Construction				
Arkansas River	295,758.0	231,967.6	(63,790.4)	(0.7)	(331.1)	22%
Drains/Unlined Pits	228,791.6	294,540.5	65,748.9	0.8	341.3	-29%
Chico Creek/AGRA Ponds	-	-	-	-	-	-
Alluvial Underflow (Groundwater Flow)	253,461.4	253,480.8	19.4	0.0	0.1	0%
Totals	778,011.0	779,988.9	1,977.9	0.0	10.3	0%

Table 2: Change in Discharge to Accretion Boundaries with Central and Santa Barbara Reservoir Slurry Walls

Name	Discharge into Accretion Boundaries (CFD)		Difference (CFD)	Difference (CFS)	Difference (GPM)	Percent Difference (%)
	Prior to Construction	After Construction				
Arkansas River	295,758.0	232,311.9	(63,446.1)	(0.7)	(329.3)	21%
Drains/Unlined Pits	228,791.6	293,593.2	64,801.6	0.8	336.4	-28%
Chico Creek/AGRA Ponds	-	-	-	-	-	-
Alluvial Underflow (Groundwater Flow)	253,461.4	253,489.7	28.3	0.0	0.1	0%
Totals	778,011.0	779,394.8	1,383.8	0.0	7.2	0%

The post-construction models have very similar results. The tables show initially about 330 gpm less water enters the Arkansas River compared to the existing conditions, a roughly 21-22 percent decrease. The models show that about 10 gpm more is taken out of the model by drain and unlined pits.

7.0 CONCLUSIONS

This groundwater impact analysis was performed to evaluate the mounding and shadowing effect the construction of slurry walls has on the local groundwater table. The model accurately replicated the conditions of the Arkansas River alluvial aquifer based on data available from recent geotechnical investigations. Model construction was facilitated by using an extensive GIS to inventory, analyze, and present the data.

The model reasonably simulated the hydrogeologic changes caused by construction of the slurry walls. The predictive simulation during irrigation season showed that the magnitude of the maximum groundwater mounding for proposed slurry walls can cause mounding as high as about 3.5 feet, and a minimum depth of groundwater of about 0.5 feet. The simulation also indicates that the maximum shadowing effect caused by the mining activities is about 0.5 feet downgradient of the proposed slurry walls. Analysis of outflows for the predictive simulations suggests that the mounding caused by the slurry walls restricts outflow to the river while increasing flow to unlined ponds. This means that water that does not flow back to the river is lost to evaporation as more water discharges into unlined ponds.

8.0 RECOMMENDATIONS

The installation of the Central slurry wall has a minimal effect on the surrounding groundwater because the water table is deep. Therefore, no drain installation is recommended for these areas at this time due to the predicted depth to groundwater. The site wells will be monitored approximately monthly. If the depth to groundwater, following the construction of the slurry wall(s) in any exterior well approaches three feet below ground surface, we recognize that a drain may need to be installed.

9.0 LIMITATIONS

The results of the groundwater modeling and conclusions drawn from them represent an approximation and are based on the best available data. Conservative assumptions were made during the calibration process so that groundwater mounding was not under-predicted. Given the unknown heterogeneity of

the aquifer in the field and variations in ground surface from the topographic data used, the groundwater mounding and/or drainage mitigation may deviate from the model simulation. There is a possibility that mounding may be higher than predicted, although the conservative assumptions of this work make the deviation toward a lower mound in the field a more likely possibility.

10.0 REFERENCES

CDWR. (2024, November 19). *Map Viewer*. Retrieved from Colorado's Decision Support Systems: https://maps.dnrgis.state.co.us/dwr/Index.html?viewer=mapviewer

CWCB. (2024, November 20). *Colorado Hazard Mapping & Risk MAP Portal*. Retrieved from Colorado Hazard Mapping: https://coloradohazardmapping.com/lidarDownload

ESRI. (2024, November 20). Retrieved from ArcGIS Pro: https://www.esri.com/en-us/arcgis/products/arcgis-pro/overview

Harbaugh, A. W. (2005). *MODFLOW-2005, The USGS Modular Ground-Water Model - the Ground-Water Flow Process.*

Rumbaugh, J. O., & Rumbaugh, D. O. (2015). *Guide to Using Groundwater Vistas.*

Seequent, The Bentley Subsurface Company. (2024, November 20). *Leapfrog Geo*. Retrieved from https://www.seequent.com/products-solutions/leapfrog-geo/

Blue Earth Solutions, LLC, 2013, *Hydrogeologic Evaluation Evans #2 Pit Division of Reclamation, Mining and Safety Permit No. M-2000-041, Pueblo County, Colorado*: Copyright © 1996-2017 Environmental Simulations, Inc.

Nelson, G., Hurr, R.T., and Moore, J., 1989, *Hydrogeologic Characteristics of the Valley-Fill Aquifer in the Arkansas River Valley, Pueblo county, Colorado*: U.S. Geological Survey Open File Report 89-256, prepared in cooperation with the Colorado Department of Natural Resources, Office of the State Engineer, Scale 1:62,500.

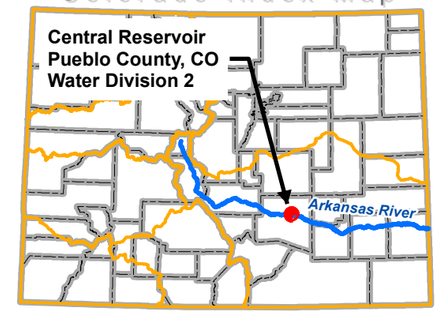
FIGURES

N
W E
S

0 2,000 4,000
Feet

Base Map: Infrared Aerial Photo from NAIP (2023).

Colorado Index Map



Excelsior Ditch

PROPOSED CENTRAL RESERVOIR
SLURRY WALL

Wash Fines

EXISTING SOUTHWEST
RESERVOIR SLURRY WALL

PROPOSED SANTA BARBARA
RESERVOIR SLURRY WALL

Arkansas River

Chico Creek

Avondale

T 20 S
T 21 S

R 63 W
R 62 W

4535 4530 4525 4520 4515 4510 4505 4500 4495

Legend

- Permitted Well
- Test Hole
- Drains
- No Flow Boundaries
- Constant Head Boundaries
- Arkansas River
- Existing Condition Groundwater Contours (C.I. = 5ft)
- Unlined Ponds
- AGRA Recharge Ponds

JOB NO. 20C26014.060

CENTRAL RESERVOIR GROUNDWATER MODELING
Existing Conditions Model

Schnabel ENGINEERING

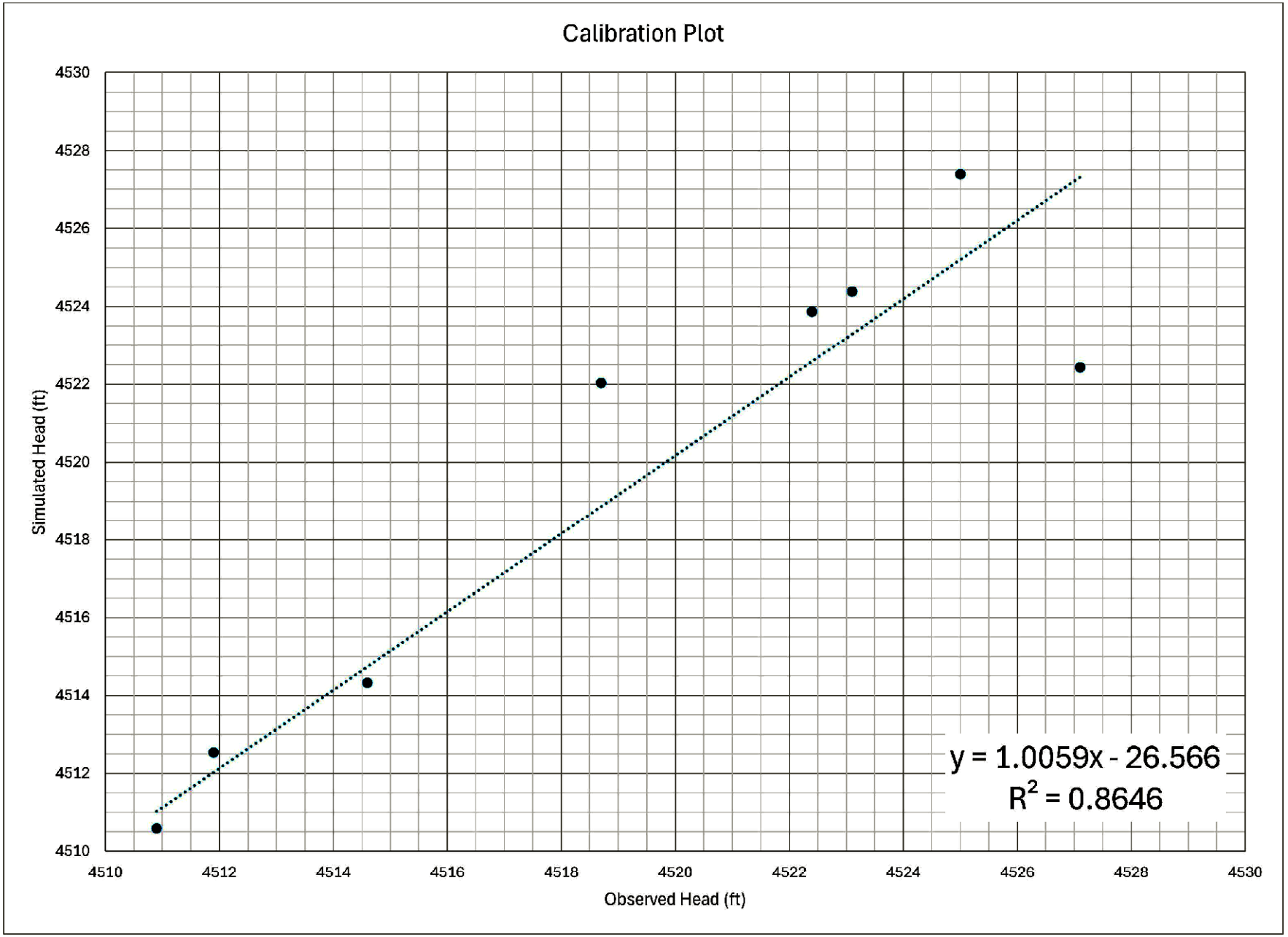
FIGURE NO. A1

DATE: 7/11/2025

SCALE: 1 inch=2,000 feet

O:\Longmont\2020\20C26014.06 Central Reservoir Const Phase 1\GIS\GW Model Update\Fig A1 - Central Res GW Modeling.mxd Friday, July 11, 2025 07:38 PM

O:\Longmont\2020\20C26014.06 Central Reservoir Const Phase 1\GIS\GW_Model_Update\Fig A2_Residuals.mxd Monday, July 14, 2025 01:07 PM



Schnabel ENGINEERING

CENTRAL RESERVOIR GROUNDWATER MODELING
Calibration Plot

JOB NO: 20C26014.060 | DATE: JULY 2025

FIGURE NO.
A2

N
W E
S

0 2,000 4,000
Feet

Base Map: Infrared Aerial Photo from NAIP (2023).

Colorado Index Map

Central Reservoir
Pueblo County, CO
Water Division 2

Arkansas River

Excelsior Ditch

PROPOSED CENTRAL RESERVOIR
SLURRY WALL

Wash Fines

-0.5
-1
-1.5
-2
-2.5
0
0.5

T 20 S
T 21 S

Chico Creek

EXISTING SOUTHWEST
RESERVOIR SLURRY WALL

Arkansas River

R 63 W
R 62 W

Avondale

Legend

- Permitted Well
- Test Hole
- Drawdown Contours (C.I. = 0.5ft)
- Drains
- No Flow Boundaries
- Constant Head Boundaries
- Arkansas River
- Unlined Ponds
- AGRA Recharge Ponds

JOB NO. 20C26014.060

CENTRAL RESERVOIR GROUNDWATER MODELING

Central Slurry Wall Mounding Condition

Schnabel ENGINEERING

FIGURE NO. A3

DATE: 7/14/2025

SCALE: 1 inch=2,000 feet

O:\Longmont\2020\20C26014.06 Central Reservoir Const Phase 1\GIS\GW Model Update\Fig A3 - Central Res GW Mounding.mxd Monday, July 14, 2025 11:18 AM

N
W E
S

0 2,000 4,000
Feet

Base Map: Infrared Aerial Photo from NAIP (2023).

Colorado Index Map

Central Reservoir
Pueblo County, CO
Water Division 2

Arkansas River

Excelsior Ditch

PROPOSED CENTRAL RESERVOIR
SLURRY WALL

Wash Fines

-0.5
-2
-2.5
-3
-1.5
-1
0

EXISTING SOUTHWEST
RESERVOIR SLURRY WALL

PROPOSED SANTA BARBARA
RESERVOIR SLURRY WALL

Arkansas River

R63W
R62W

T 20 S
T 21 S

Chico Creek

Avondale

JOB NO. 20C26014.060

Legend

- Permitted Well
- Test Hole
- Drawdown Contours (C.I. = 0.5ft)
- Drains
- No Flow Boundaries
- Constant Head Boundaries
- Arkansas River
- Unlined Ponds
- AGRA Recharge Ponds

CENTRAL RESERVOIR GROUNDWATER MODELING

Central & Santa Barbara Mounding Conditions

Schnabel ENGINEERING

FIGURE NO. A4

DATE: 7/14/2025

SCALE: 1 inch=2,000 feet

O:\Longmont\2020\20C26014.06 Central Reservoir Const Phase 1\GIS\GW Model Update\Fig A4 - Central SB GW Mounding.mxd Monday, July 14, 2025 11:04 AM